

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

Configuration Guide

Manage Posting Period Approval using SAP Build Process Automation or SAP Workflow Management

Table of Contents

Table of Contents	2
Overview	3
Features.....	3
Solution Diagram	3
Artifacts	4
Process	4
Process Variants	10
Import Manage Posting Period Approval and Configure Process Variants with SAP Build Process Automation.....	10
Import Manage Posting Period Approval and Configure Process Variants with SAP Workflow Management	11
Decisions & Policies.....	12
Approver Determination Strategy	12
Determine Administrators	13
Determine Approvers	14
Determine Task Due Date.....	15
Determine Position	16
Vocabulary Business Rule	17
Determine Approvers from External Service.....	18
Process Visibility	18
Configure Visibility Scenarios in SAP Build Process Automation	19
Configure Visibility Scenarios in SAP Workflow Management.....	19
Access Process Workspace in SAP Build Process Automation.....	19
Access Process Workspace in SAP Workflow Management	20

Overview

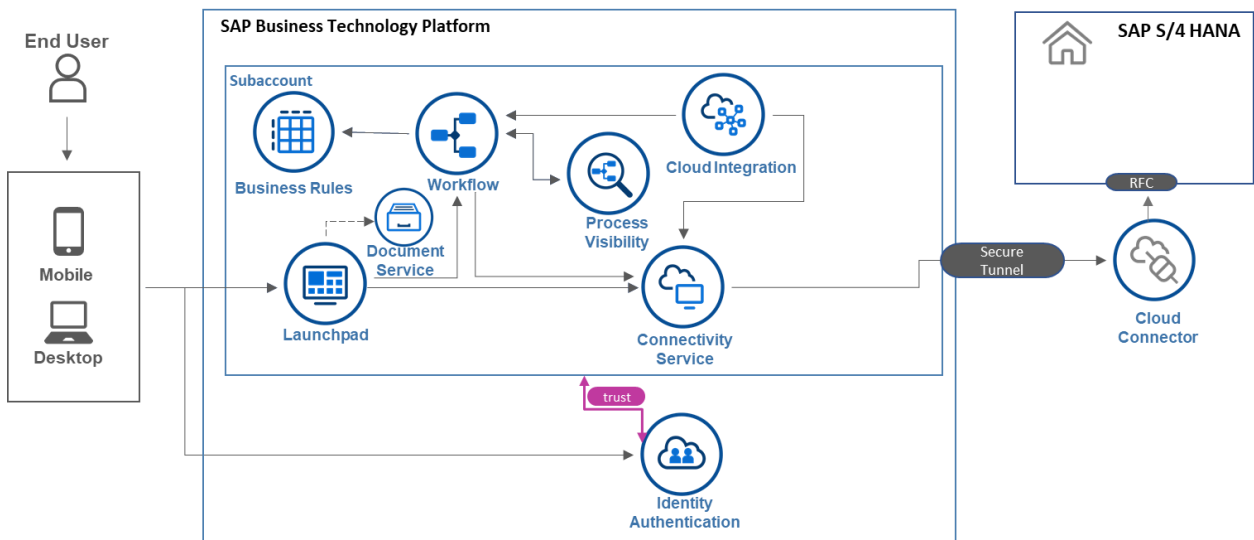
This document provides information about configuration steps to consume the package **Manage Posting Period Approval**. The main audience of this document are Business Process Experts and Process Operators.

The workflow focuses on enabling business to open the already closed periods due to some adjustments or corrections to be made as suggested by the auditors. The solution focuses on a custom workflow based on BTP that can help business to get proper approvals before opening the closed posting periods.

Features

- Plug and Play with SAP S/4HANA without additional development.
- New Process variants can be configured in a no-code approach.
- Agent/approver determination using Business Rules or external service.
- Pre-built integration content to call SAP S/4HANA from SAP Build Process Automation or SAP Workflow Management
- Out-of-the-box visibility into key process performance indicators.

Solution Diagram



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 **Manage Posting Period Approval** package contains the following process template:

Manage Posting Period Approval– deals with collection, approval and management enabling business to open the already closed periods due to some adjustments or corrections to be made as suggested by the auditors.

These transactions are usually high value items and business requires to monitor and track them so that these items do not get posted in the system without notice.

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 **Manage Posting Period Approval**.

Table 1. Process Steps

Process Steps	Cardinality	Detailed Description
Posting Period Approval	1..N = Optional Step	Workflow for the Approver to take the action on the Posting Period.
Post Adjusted posting period	1..1 = mandatory step	Post the adjusted posting period to the S/4 HANA system.

A process step can have customizable properties and they could influence the outcome of the process step. For example, the Approval step can be reused multiple times and based on the properties the approver is determined. Please see Table 2 for more details.

Table 2. Process Step Properties

Process Step	Properties	Detailed Description
Approval	Role	Role name of the approver who approves the posting period
	Approval Step	Team ID which approves the posting period which is used to determine approvers from business rules.

The 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 3 for more details.

Table 3. Process Attributes.

Process Attributes	Detailed Description
Company Code	Company Code to which posting periods belong to.
Posting Period Variant	Posting period variant: FI Posting period variant which is used for opening and closing period in the fiscal year for posting purpose
Fiscal Year Variant	The Fiscal Year variant contains the number of posting periods in the fiscal year and no of special periods
Total Items	Total posting period items raised for approval.
Approved Items	Total approved posting period items.
Post Success Items	Total successfully posted posting period items.
Post Failure Items	Total post failed posting period items.
Rejected Items	Total rejected posting period items.

Sample Context without Start Conditions:

```
{
  "postingPeriodDetails": {
    "requestDetails": {
      "postingPeriodVariant": "4001",
      "postingPeriodVariantName": "LP Posting Period Var US Ops1",
      "companyCode": "4001",
      "companyCodeName": "LP Company Code US- Ops",
      "fiscalYearVariant": "K4",
      "fiscalYearVariantDescription": "Cal. Year, 4 Special Periods",
      "comment": "Testing",
      "customCreatedBy": "XYZ",
      "customCreatedByEmail": "xyz@email.com"
    },
    "itemDetails": [
      {
        "postingPeriodVariant": "4001",
        "accountType": "+",
        "accountDescription": "Valid for all account types",

```

```
"fromAccount": "",
"toAccount": "",
"normalFromPeriodOld": "013",
"normalFromYearOld": "2021",
"normalToPeriodOld": "016",
"normalToYearOld": "2021",
"adjustableFromPeriodOld": "001",
"adjustableFromYearOld": "2021",
"adjustableToPeriodOld": "012",
"adjustableToYearOld": "2021",
"coFromPeriodOld": "",
"coFromYearOld": "",
"coToPeriodOld": "",
"coToYearOld": "",
"normalFromPeriodNew": "013",
"normalFromYearNew": "2021",
"normalToPeriodNew": "016",
"normalToYearNew": "2021",
"adjustableFromPeriodNew": "001",
"adjustableFromYearNew": "2021",
"adjustableToPeriodNew": "016",
"adjustableToYearNew": "2021",
"coFromPeriodNew": "003",
"coFromYearNew": "2021",
"coToPeriodNew": "003",
"coToYearNew": "2021",
"durationNumber": "5",
"durationText": "Minutes"
},
{
"postingPeriodVariant": "4001",
"accountType": "A",
"accountDescription": "Assets",
"fromAccount": "1000000",
"toAccount": "9999999",
```

```

    "normalFromPeriodOld": "013",
    "normalFromYearOld": "2021",
    "normalToPeriodOld": "016",
    "normalToYearOld": "2021",
    "adjustableFromPeriodOld": "001",
    "adjustableFromYearOld": "2021",
    "adjustableToPeriodOld": "016",
    "adjustableToYearOld": "2021",
    "coFromPeriodOld": "003",
    "coFromYearOld": "2021",
    "coToPeriodOld": "003",
    "coToYearOld": "2021",
    "normalFromPeriodNew": "013",
    "normalFromYearNew": "2021",
    "normalToPeriodNew": "016",
    "normalToYearNew": "2021",
    "adjustableFromPeriodNew": "001",
    "adjustableFromYearNew": "2021",
    "adjustableToPeriodNew": "012",
    "adjustableToYearNew": "2021",
    "coFromPeriodNew": "005",
    "coFromYearNew": "2020",
    "coToPeriodNew": "009",
    "coToYearNew": "2020",
    "durationNumber": "6",
    "durationText": "Minutes"
  }
],
  "attachments": "ManagePostingPeriods_1640171434927"
}

```

Sample Context with Start Conditions

```

{
  "postingPeriodDetails": {
    "companyCode": "4001",

```

```
"requestDetails": {
  "postingPeriodVariant": "4001",
  "postingPeriodVariantName": "LP Posting Period Var US Ops1",
  "companyCode": "4001",
  "companyCodeName": "LP Company Code US- Ops",
  "fiscalYearVariant": "K4",
  "fiscalYearVariantDescription": "Cal. Year, 4 Special Periods",
  "comment": "Testing",
  "customCreatedBy": "XYZ",
  "customCreatedByEmail": "xyz@email.com"
},
```

```
"itemDetails": [
  {
    "postingPeriodVariant": "4001",
    "accountType": "+",
    "accountDescription": "Valid for all account types",
    "fromAccount": "",
    "toAccount": "",
    "normalFromPeriodOld": "013",
    "normalFromYearOld": "2021",
    "normalToPeriodOld": "016",
    "normalToYearOld": "2021",
    "adjustableFromPeriodOld": "001",
    "adjustableFromYearOld": "2021",
    "adjustableToPeriodOld": "012",
    "adjustableToYearOld": "2021",
    "coFromPeriodOld": "",
    "coFromYearOld": "",
    "coToPeriodOld": "",
    "coToYearOld": "",
    "normalFromPeriodNew": "013",
    "normalFromYearNew": "2021",
    "normalToPeriodNew": "016",
    "normalToYearNew": "2021",
    "adjustableFromPeriodNew": "001",
```



```
"adjustableFromYearNew": "2021",
"adjustableToPeriodNew": "016",
"adjustableToYearNew": "2021",
"coFromPeriodNew": "003",
"coFromYearNew": "2021",
"coToPeriodNew": "003",
"coToYearNew": "2021",
"durationNumber": "5",
"durationText": "Minutes"
},
{
  "postingPeriodVariant": "4001",
  "accountType": "A",
  "accountDescription": "Assets",
  "fromAccount": "1000000",
  "toAccount": "9999999",
  "normalFromPeriodOld": "013",
  "normalFromYearOld": "2021",
  "normalToPeriodOld": "016",
  "normalToYearOld": "2021",
  "adjustableFromPeriodOld": "001",
  "adjustableFromYearOld": "2021",
  "adjustableToPeriodOld": "016",
  "adjustableToYearOld": "2021",
  "coFromPeriodOld": "003",
  "coFromYearOld": "2021",
  "coToPeriodOld": "003",
  "coToYearOld": "2021",
  "normalFromPeriodNew": "013",
  "normalFromYearNew": "2021",
  "normalToPeriodNew": "016",
  "normalToYearNew": "2021",
  "adjustableFromPeriodNew": "001",
  "adjustableFromYearNew": "2021",
  "adjustableToPeriodNew": "012",
```

```

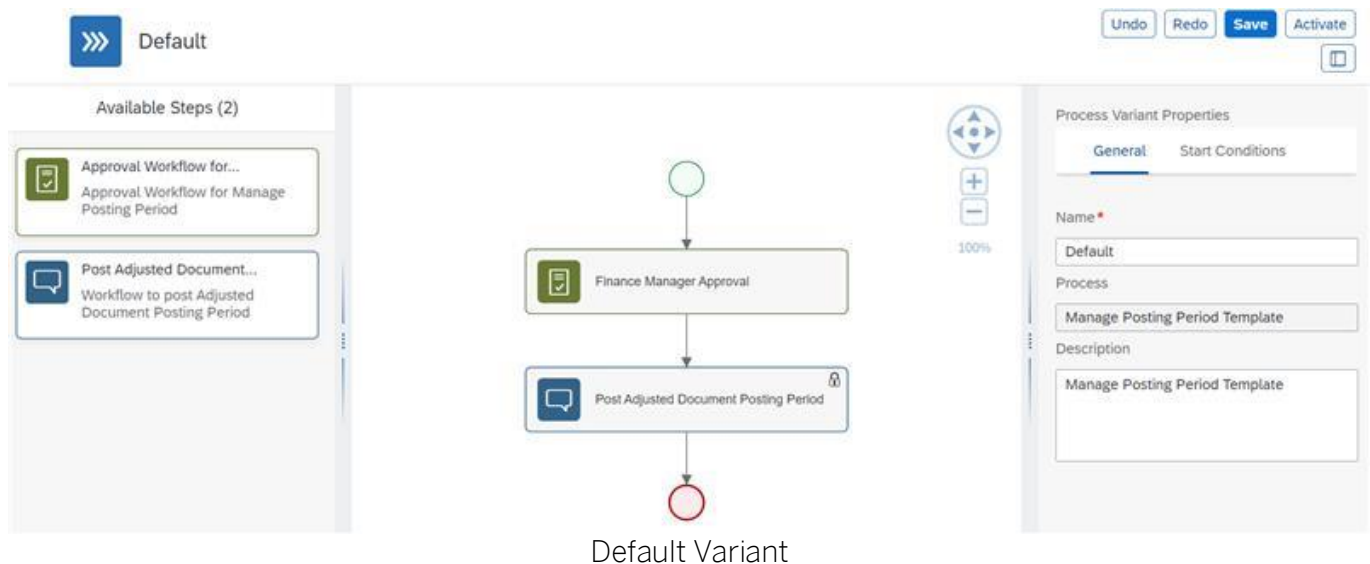
    "adjustableToYearNew": "2021",
    "coFromPeriodNew": "005",
    "coFromYearNew": "2020",
    "coToPeriodNew": "009",
    "coToYearNew": "2020",
    "durationNumber": "6",
    "durationText": "Minutes"
  }
],
"attachments": "ManagePostingPeriods_1640171434927"
}
}

```

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.

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



Import Manage Posting Period Approval and Configure Process Variants with SAP

Build Process Automation

1. In the [SAP Build Process Automation Store](#), search for live process package Manage Posting Period Approval 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 Manage Posting Period Approval . 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 Manage Posting Period Approval ” 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 Manage Posting Period Approval and Configure Process Variants with SAP Workflow Management

1. In Process Flexibility Cockpit app, search for content package Manage Posting Period 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.
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 “Manage Posting Period Approval ” 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 and at least one level of approval.
7. It is possible to remove steps like “Approval for Manage Posting Period Approval ” 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 Workflows – Workflow Definition app in SAP Fiori Launchpad.

Add additional Approval Step to an existing Process Variant

It is possible to add/remove additional approval steps

1. Open content package Manage Posting Period Approval in Flexibility Cockpit and click on Process Variants tile
2. Select the variant that you want to modify
3. Drag and drop "Approval workflow for Manage Posting Period" as an additional step before "PostAdjustedDocumentPosting" step
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

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.

Manage Posting Period Approval enable customers to flexibly configure decisions to gain flexibility to

1. Approver Determination Strategy
2. Determine Task Due Date
3. Determine Administrators
4. Determine Approvers
5. Determine Position

Approver Determination Strategy

Based on the business requirement approver can be determined by external service or business rules.

Rule Service Name: Approver Determination Strategy

Input

Attributes	Description	Data Type
Company Code	Company Code to which posting period belong to.	String

Posting Period Variant	Posting Period Variant which is used for opening and closing period in the fiscal year for posting purpose.	String
Approval Step	Approval Step	String

Result

Name	Label	Description	Business Data Type
DeterminationStrategy	Determination Strategy	Determination strategy can either "Business Rule" or "External Service" depending on posting period details	String

Rule

Company Code	Posting Period Variant	Approval Step	Determination Strategy
= 'XYZ'	= 'XYZ'	= 'Finance Manager'	'Business Rules'

Determine Administrators

Determine administrators in case of any errors in fetching the approvers for Manage Posting Period Approval.

Rule Service Name: Determine Administrators

Input

Attributes	Description	Data Type
Company Code	Company Code to which posting period belong to.	String
Posting Period Variant	Posting Period Variant which is used for opening and closing period in the fiscal year for posting purpose.	String
Approval Step	Approval Step	String

Result

Name	Label	Description	Business Data Type
Userid	User ID	User ID of the administrator.	String
UserGroup	User Group	Group ID of the administrator.	String
Email	Email	Email address of the administrator.	String

Rule

IF	Then		
Approval Step	Email	User Group	User ID
= 'Finance Manager'	'email@example.com'	'Admin_GroupId'	'Admin_Userid'

Determine Approvers

Determine approvers for an approval step in Manage Posting Period Approval.

Rule Service Name: Determine Approvers

Input:

Attributes	Description	Data Type
Company Code	Company Code to which posting period belong to.	String
Posting Period Variant	Posting Period Variant which is used for opening and closing period in the fiscal year for posting purpose.	String
Approval Step	Approval Step	String

Output:

Name	Label	Description	Business Data Type
UserId	User ID	User ID of the approver responsible for posting period approval.	String >
UserGroup	User Group	Group ID of the approver responsible for posting period approval.	String >
Email	Email	Email address of the approver responsible for posting period approval.	String >
DueDuration	Due Duration	Due Duration	Number >
UnitofTime	Unit of Time	Unit of Time	String >

Rule Definition

<input type="checkbox"/>	Company Code	Posting Period Variant	Approval Step	Email	User Group	User ID
<input type="checkbox"/>	= 'XYZ'	= 'XYZ'	= 'Finance Manager'	'email@example.com'	'Approver_GroupId'	'Approver_UserId'

Determine Task Due Date

Determine the due date duration for each step of the Manage Posting Period Approval

Rule Service Name: Determine Task Due Date

Input:

Attributes	Description	Data Type
Company Code	Company Code to which posting period belong to.	String
Posting Period Variant	Posting Period Variant which is used for opening and closing period in the fiscal year for posting purpose.	String
Approval Step	Approval Step	String

Output:

Name	Label	Description	Business Data Type
Userid	User ID	User ID of the approver responsible for posting period approval.	String >
UserGroup	User Group	Group ID of the approver responsible for posting period approval.	String >
Email	Email	Email address of the approver responsible for posting period approval.	String >
DueDuration	Due Duration	Due Duration	Number >
UnitofTime	Unit of Time	Unit of Time	String >

Rule Definition

Text Rule

▼ If

Posting Period Details.Approval Step = 'Finance Manager'

Then

Unit of Time:

Due Duration:

Text Rule

> If

▼ Else

Unit of Time:

Due Duration:

Determine Position

Determine the position who approves for each step of the Manage Posting Period Approval

Input

Attributes	Description	Data Type
Company Code	Company Code to which posting period belong to.	String
Posting Period Variant	Posting Period Variant which is used for opening and closing period in the fiscal year for posting purpose.	String
Approval Step	Approval Step	String

Result

Name	Label	Description	Business Data Type
PositionNumber	Position Number	Position number of person who approves posting period.	Number >
PositionName	Position Name	Position name of person who approves posting period.	String >

Rule

Company Code	Posting Period Variant	Approval Step	Position Name	Position Number
= 'XYZ'	= 'XYZ'	= 'Finance Manager'	'XYZ'	1

Vocabulary Business Rule

Name	Label	Description	Business Data Type
companyCode	Company Code	Company Code to which posting period belongs to.	String >

Determine Approvers from External Service

If external service is used to determine the approvers, then document what are the requirements – destination, api, api signature, etc.

API Attributes	Values
Path	/http/updatePostingPeriodmppawfm
HTTP Method	GET
Payload sent by workflow (sample data)	<pre>{ "d": { "companyCode": "4001", "positionID": "99999999" } }</pre>
Response Payload from integration flow	<p>RESPONSE STATUS, Ex 200 OK</p> <pre>{ "d": { "approvers": [{ "userID": "app1", "emailID": app1@test.com, "name": "Approver 1" }, { "userID": "app2", "emailID": app2@test.com, "name": "Approver 2" }] } }</pre> <p>Note: When Status is not 200, then it is considered a failed service call.</p>
Payload Type	Application / JSON

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.

Manage Posting Period 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 Manage Posting Period ApprovalProject.
3. Click to open Manage Posting Period Approval 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 Manage Posting Period tile.
3. Click Visibility Scenarios tile.
4. The following process is configured
Manage Posting Period Template: Contains approval process events and context, sent by SAP Workflow Management.

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 Manage Posting Period Approval 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:

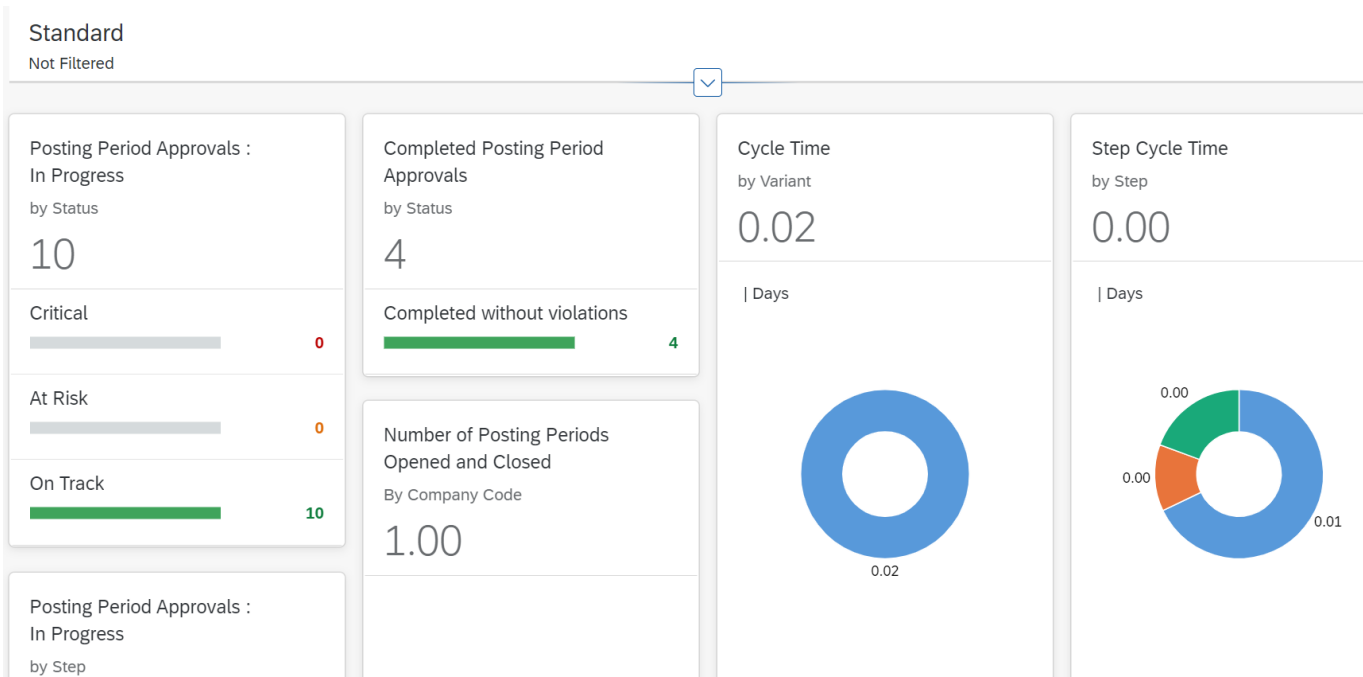
Parameter Name	Parameter Value
Name	scenariold
Default Value	com.sap.content.Manage_Posting_Period

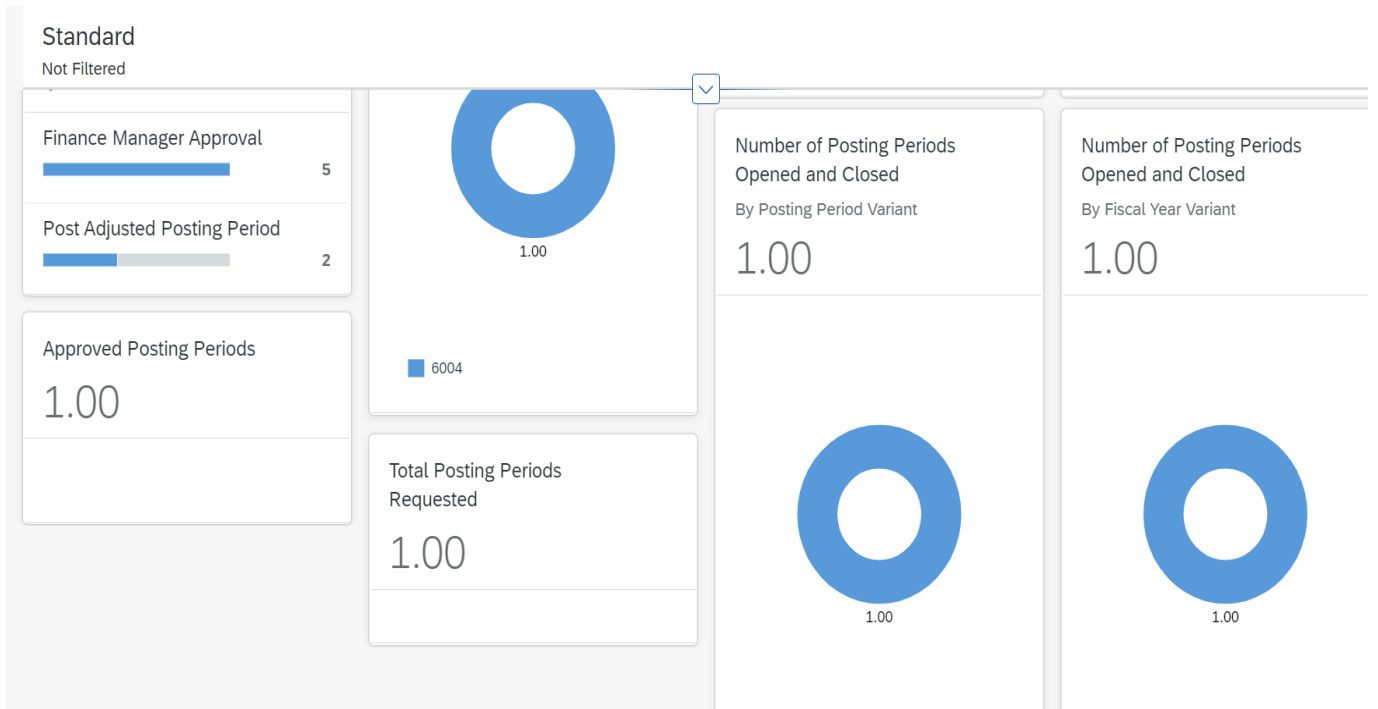
Required	Toggle to Yes
----------	---------------

- 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 "Manage Posting Period Approval".
 4. User will see the process visibility dashboard below.

Access Process Workspace in SAP Workflow Management

1. Go to Process Flexibility Cockpit
2. Select **Manage Posting Period** tile
3. Click Live Process Insights – **Manage Posting Period**
4. User will get the following screens





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