

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

Configuration Guide

Plan Activity Prices Approval using SAP Build Process Automation or SAP Workflow Management

Table of Contents

Table of Contents.....	2
Overview.....	3
Features.....	3
Artifacts.....	4
Process	4
Process Variants	8
Import Plan Activity Prices Approval and Configure Process Variants with SAP Build Process Automation	9
Import Plan Activity Prices Approval and Configure Process Variants with SAP Workflow Management	9
Decisions & Policies	10
Input details	10
Approver Determination Strategy	11
Determine Administrators.....	11
Determine Approvers	11
Determine Task Due Date	12
Determine Position	12
Vocabulary Business Rule.....	13
Determine Approvers from External Service	13
Process Visibility	15
Configure Visibility Scenarios in SAP Build Process Automation.....	15
Configure Visibility Scenarios in SAP Workflow Management.....	16
Access Process Workspace in SAP Build Process Automation	16
Access Process Workspace in SAP Workflow Management	17

Overview

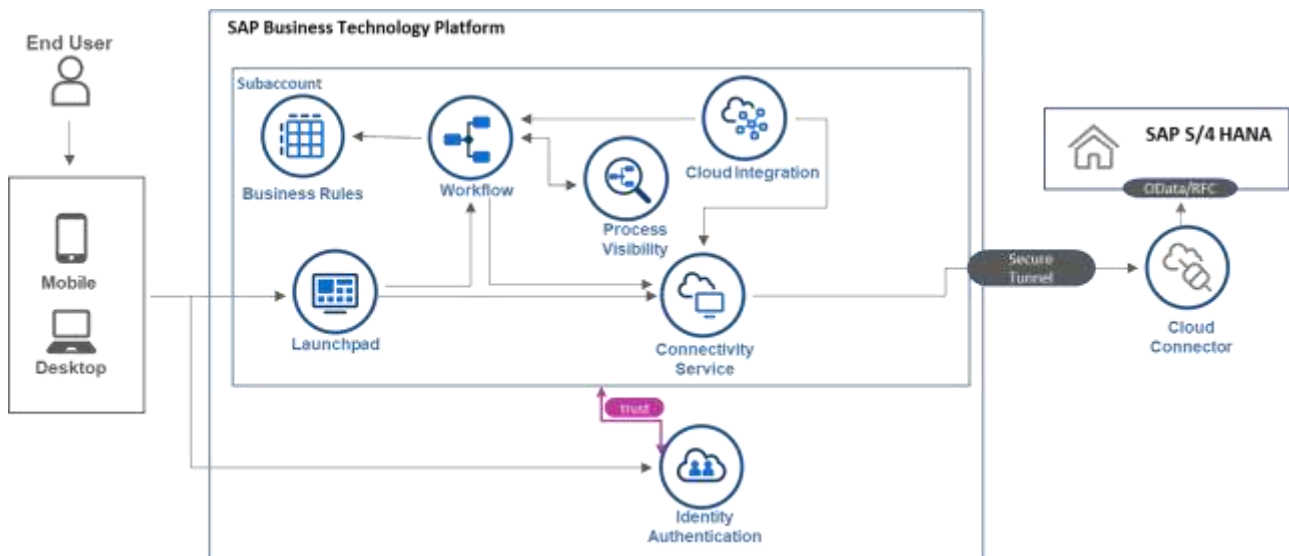
This document provides information about configuration steps to consume the package **Plan Activity Prices Approval**. The main audience of this document are Finance Experts, Credit Controllers, Developers and Product Owners.

This use case deals with updating the Planned activity / Capacity and Price(fixed) and Variable, etc. as per a specific cost center and an activity type. Controller will initiate the approval process in BTP from start UI - Plan activity prices. Data can be entered through manual input or from excel upload

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 **Plan Activity Prices Approval** package contains the following process template:

Plan Activity Prices Approval– deals with approval of Plan Activity Prices.

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 **Plan Activity Prices Approval**.

Table 1. Process Steps

Process Steps	Cardinality	Detailed Description
Cost Center Owner Approval	1..1 = Mandatory step	Workflow to approve or reject the Plan Activity Pricing request
Approval	0..N = Optional step	Workflow to approve or reject the Plan Activity Pricing request
Post Plan Activity Prices	1..1 = Mandatory step	Workflow to post Plan Activity types request

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	Approval Step	Team ID which approves the Plan Activity Pricing entry. This 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
Cost Center	Cost Center to which the Activity type pricing request belongs to.
Controlling Area	Controlling Area to which the Activity type pricing request belongs to.
isRejected	Flag to denote if the Activity type pricing request is rejected.

Sample Context with Start Conditions

```
"planActivityPricingDetails": {
  "headerInfo": {
    "controllingArea": "6000",
    "version": "0",
    "periodFrom": "1",
    "periodTo": "1",
    "fiscalYear": "2022",
    "planningCurrency": "C",
    "requestor": "XYZ",
    "requestorEmail": "XYZ@example.com",
    "validateInput": {
      "controllingArea": "None",
      "version": "None",
      "fiscalYear": "None",
      "periodFrom": "None",
      "periodTo": "None",
      "costCenter": "None"
    },
    "costCenter": "40021002",
    "costCenterGroup": "11001002",
    "companyCode": "4002"
  },
  "itemData": [
```

```

{
  "itemNumber": 1,
  "expanded": false,
  "costCenter": "40021002",
  "activityType": "MACHIN",
  "planActivity": "10",
  "distributionKeyQuantity": "1",
  "capacity": "",
  "distributionKeyCapacity": "1",
  "unit": "",
  "fixedPrice": "89",
  "distributionKeyFixPrice": "2",
  "variablePrice": "1000",
  "distributionKeyVariablePrice": "2",
  "currency": "USD",
  "priceUnit": "00001",
  "planPriceIndicator": "1",
  "bPlanQuantitySet": true,
  "bAveragePrice": true,
  "allocationCostElement": "",
  "activityTypeCategory": "",
  "validateInput": {
    "planActivity": "None",
    "activityType": "None",
    "distributionKeyQuantity": "None",
    "distributionKeyCapacity": "None",
    "fixedPrice": "None",
    "distributionKeyFixPrice": "None",
    "variablePrice": "None",
    "distributionKeyVariablePrice": "None",
    "priceUnit": "None",
    "planPriceIndicator": "None",
    "allocationCostElement": "None"
  }
},
"planQuantitySet": "X",

```

```
    "averagePrice": "X"
  }
}
```

Sample Context without Start Conditions

```
"planActivityPricingDetails": {
  "headerInfo": {
    "planningCurrency": "C",
    "requestor": "XYZ",
    "requestorEmail": "XYZ@example.com",
    "validateInput": {
      "controllingArea": "None",
      "version": "None",
      "fiscalYear": "None",
      "periodFrom": "None",
      "periodTo": "None",
      "costCenter": "None"
    },
    "companyCode": "4002"
  },
  "itemData": [
    {
      "itemNumber": 1,
      "expanded": false,
      "costCenter": "40021002",
      "activityType": "MACHIN",
      "planActivity": "10",
      "distributionKeyQuantity": "1",
      "capacity": "",
      "distributionKeyCapacity": "1",
      "unit": "",
      "fixedPrice": "89",
      "distributionKeyFixPrice": "2",
```

```

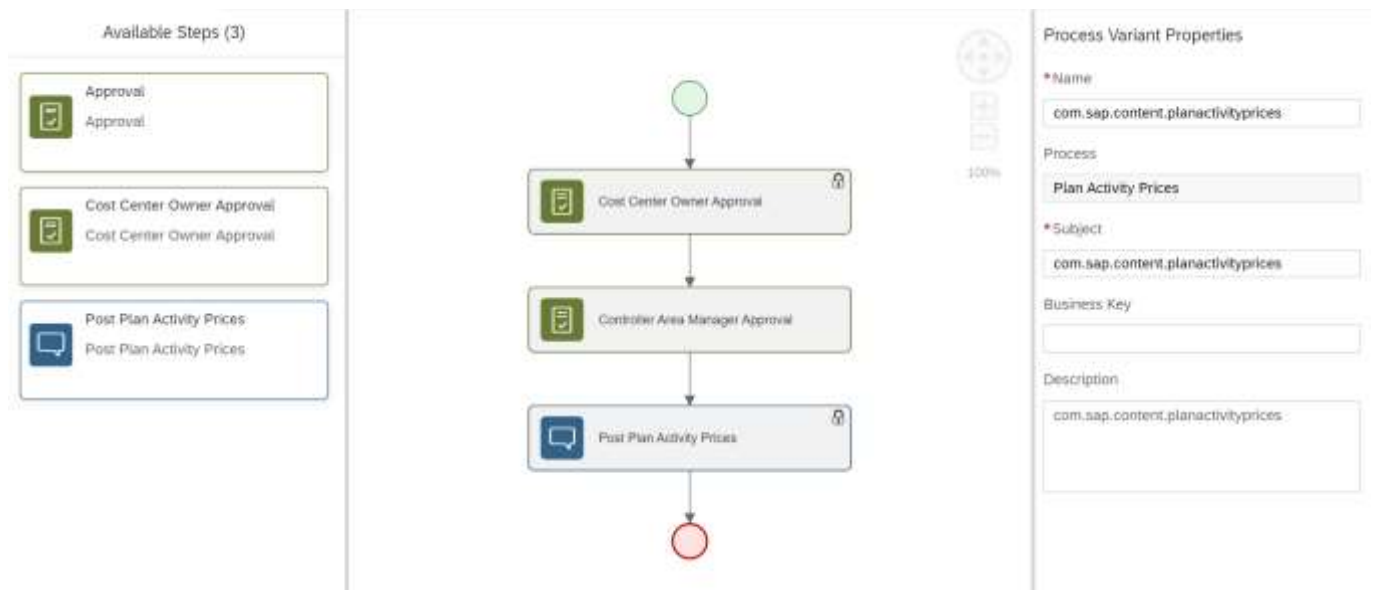
    "variablePrice": "1000",
    "distributionKeyVariablePrice": "2",
    "currency": "USD",
    "priceUnit": "00001",
    "planPriceIndicator": "1",
    "bPlanQuantitySet": true,
    "bAveragePrice": true,
    "allocationCostElement": "",
    "activityTypeCategory": "",
    "validateInput": {
      "planActivity": "None",
      "activityType": "None",
      "distributionKeyQuantity": "None",
      "distributionKeyCapacity": "None",
      "fixedPrice": "None",
      "distributionKeyFixPrice": "None",
      "variablePrice": "None",
      "distributionKeyVariablePrice": "None",
      "priceUnit": "None",
      "planPriceIndicator": "None",
      "allocationCostElement": "None"
    },
    "planQuantitySet": "X",
    "averagePrice": "X"
  }
}

```

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 Plan Activity Prices Approval and Configure Process Variants with SAP Build Process Automation

1. In the [SAP Build Process Automation Store](#), search for live process package Plan Activity Prices 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 Plan Activity Prices 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 Plan Activity Prices 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 Plan Activity Prices Approval and Configure Process Variants with SAP Workflow Management

1. In Process Flexibility Cockpit app, search for content package Plan Activity Prices 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 “Plan Activity Prices 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 Plan Activity Prices 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.

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.

Emission Data Management 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

Input details – All the rules have the common Input attributes

Name	Label	Description	Business Data Type
ControllingArea	Controlling Area	Controlling Area of plan activity.	String
CostCenter	Cost Center	Cost Center of which plan activity belongs to.	String
ApprovalStep	Approval Step	Approval Step	String
Version	Version	Version of which plan activity belongs to.	String
FiscalYear	Fiscal Year	Fiscal Year of which plan activity belongs to.	String
PeriodFrom	Period From	Period From of which plan activity belongs to.	String
PeriodTo	Period To	Period To of which plan activity belongs to.	String

CostCenterGroup	Cost Center Group	Cost Center Group of which plan activity belongs to.	String
-----------------	-------------------	--	--------

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: Refer to [section](#)

Result

Name	Label	Description	Business Data Type
DeterminationStrategy	Determination Strategy	Approver Determination Strategy can either “Business Rule” or “External Service” depending on joint venture details.	String

Determine Administrators

Determine administrators in case of any errors in fetching the approvers for Plan Activity Prices Approval.

Rule Service Name: Determine Administrators

Input: Refer to [section](#)

Result

Name	Label	Description	Business Data Type
UserId	User ID	User ID of the administrator	String
UserGroup	User Group	User Group of the administrator	String
Email	Email	Email ID of the administrator	String

Determine Approvers

Determine approvers for an approval step in Plan Activity Prices Approval.

Rule Service Name: Determine Approvers

Input: Refer to [section](#)

Output:

Name	Label	Description	Business Data Type
Userld	User ID	User ID of the approver responsible for Plan Activity Proce Approval.	String
UserGroup	User Group	User Group ID of the approver responsible for Plan Activity Prices Approval.	String
Email	Email	Email ID of the approver responsible Plan Activity Prices Approval.	String
DueDuration	Due Duration	Due Duration	Number
UnitofTime	Unit of Time	Unit of Time	String

Determine Task Due Date

Determine the due date duration for each step of the Plan Activity Prices Approval.

Rule Service Name: Determine Task Due Date

Input: Refer to [section](#)

Output: Refer section [Output](#)

Determine Position

Determine the position who approves for each step of the Plan Activity Prices Approval

Input Refer to [section](#)

Result

Name	Label	Description	Business Data Type
PositionNumber	Position Number	Position number of person who approves Activity Price Request	String
PositionName	Position Name	Position name of person who approves Activity Price Request.	String

Vocabulary Business Rule

Name	Label	Description	Business Data Type
ControllingArea	Controlling Area	Controlling Area of plan activity.	String
CostCenter	Cost Center	Cost Center of which plan activity belongs to.	String
Version	Version	Version of which plan activity belongs to.	String
FiscalYear	Fiscal Year	Fiscal Year of which plan activity belongs to.	String
PeriodFrom	Period From	Period From of which plan activity belongs to.	String
PeriodTo	Period To	Period To of which plan activity belongs to.	String
CostCenterGroup	Cost Center Group	Cost Center Group of which plan activity 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/getApproverspapawfm
HTTP Method	POST
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" }], }, }</pre>

	<pre> { "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
API Attributes	Values
Path	/http/getApproverspapawfm
HTTP Method	POST
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

API Attributes	Values
Path	/http//getCCOwnerAddpapawfm?CostCenter=0040011000&CompanyCode=4001
HTTP Method	GET
Response Payload from integration flow	<p>RESPONSE STATUS, Ex 200 OK</p> <pre>{ "data": { "userId": "SAMPLE", "emailId": "sample@example.com", "companyCode": "4001", "costCenter": "0040011000", "message": "Data fetched successfully" } }</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.

Plan Activity Prices 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

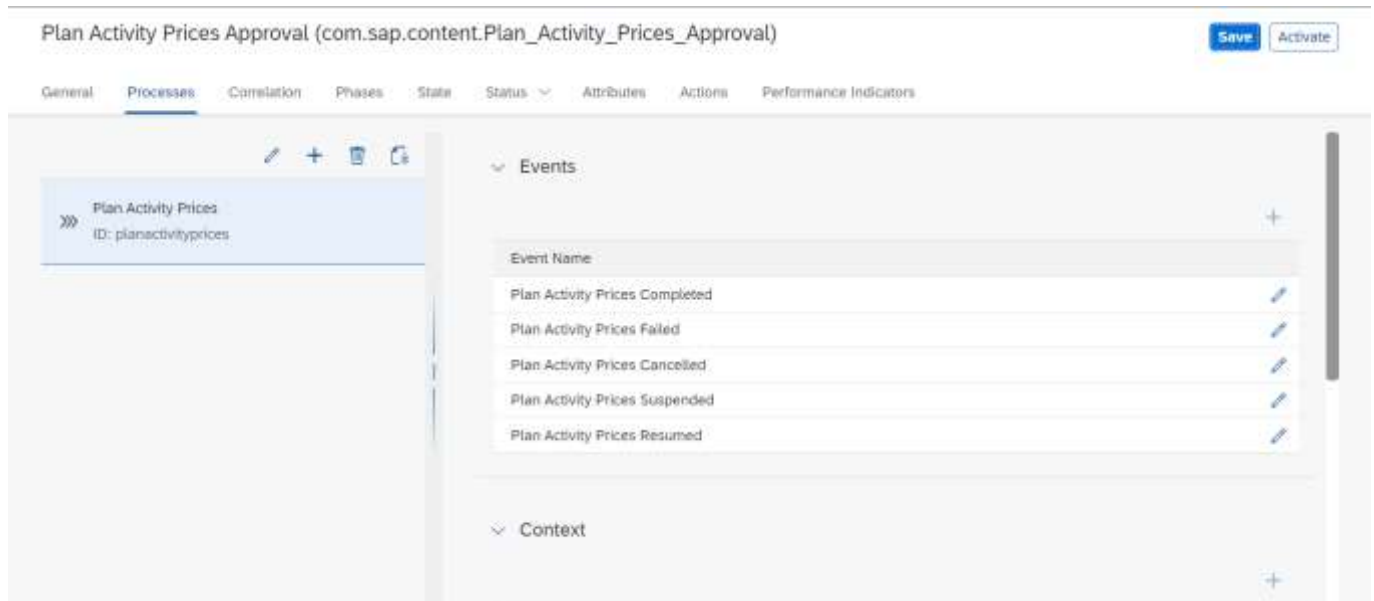
1. Go to the Application Development Lobby.
2. Select Plan Activity Prices Approval Project.
3. Click to open **Plan Activity Prices Approval** scenario.
4. Click Activate button.

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 Plan Activity Prices Approval tile.
3. Click Visibility Scenarios tile.
4. The following process is configured

Plan Activity Prices Approval: 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 Plan Activity Prices 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.Plan_Activity_Prices_Approval
Required	Toggle to Yes

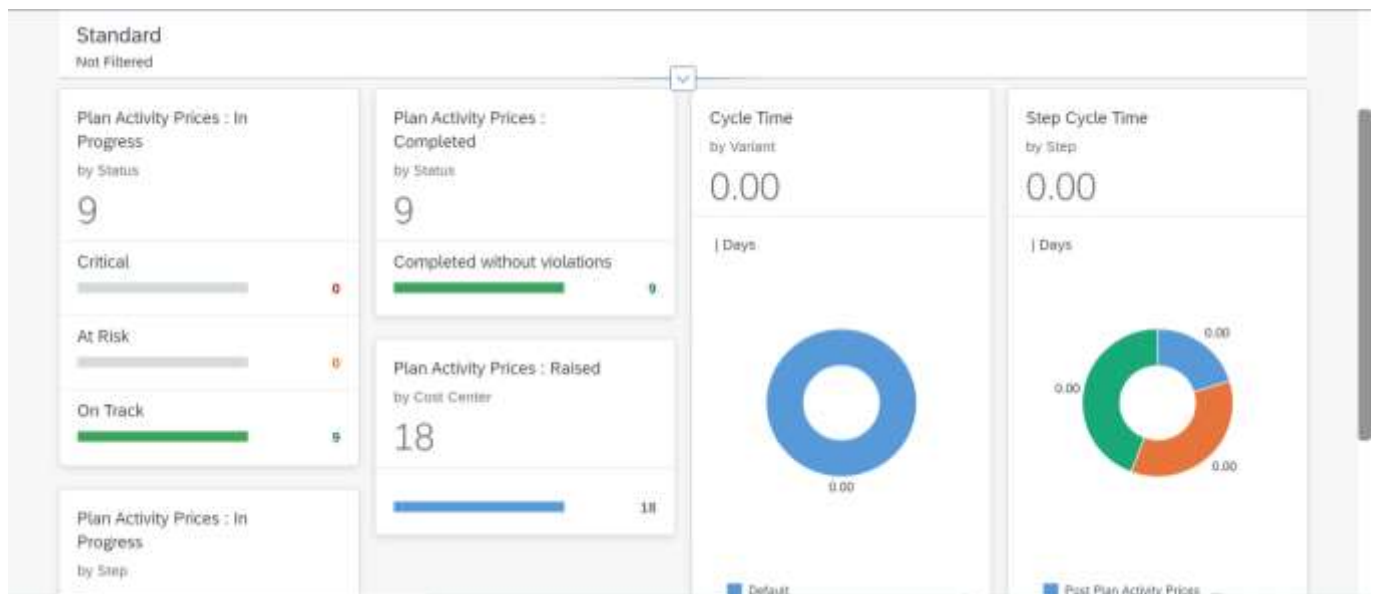
- h. Choose Save.
- i. Assign the local copy to a group and make sure that they're visible to users. For more information, see [Assign Apps to a Group and to a Catalog](#) and [Assign Content to a Role](#).

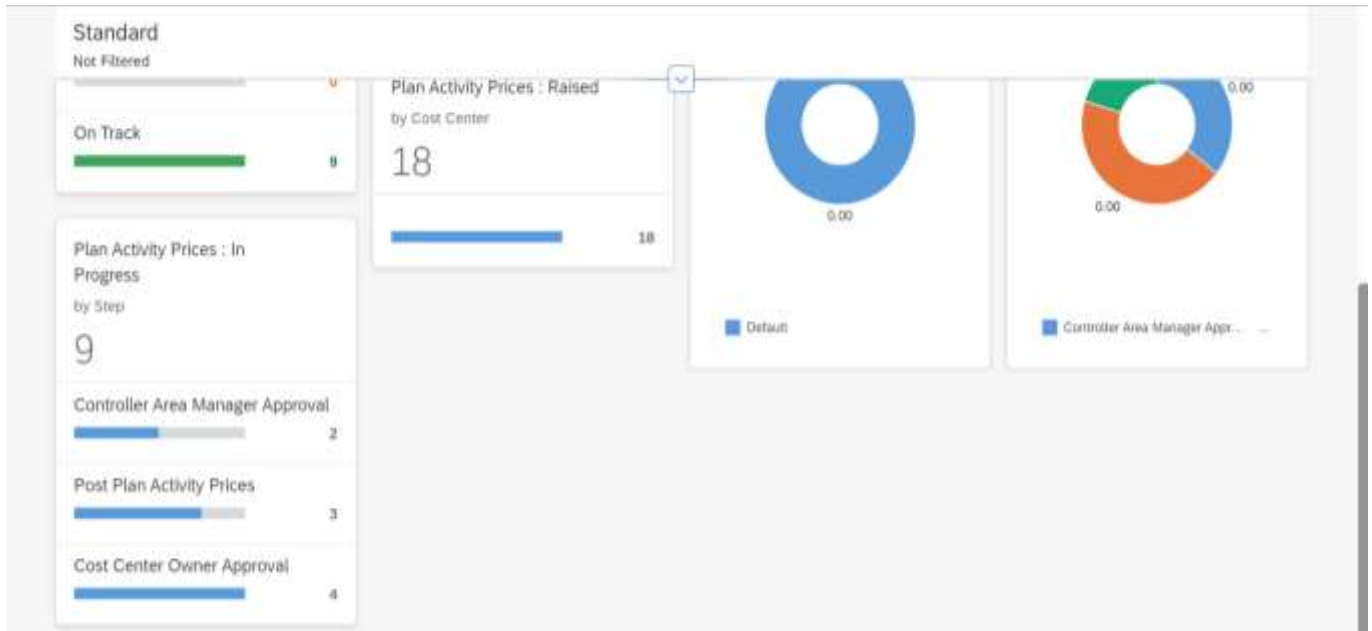
3. Once created, select app that corresponds to "Plan Activity Prices Approval".

4. User will see the process visibility dashboard below.

Access Process Workspace in SAP Workflow Management

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





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