

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

Configuration Guide

Manage Asset Creation Requests using SAP Build
Process Automation or SAP Workflow Management

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Overview

This document provides information about configuration steps to consume the live process package Asset Creation Direct Procurement. The main audience of this document are Procurement Experts, Finance experts, Developers and Product owners.

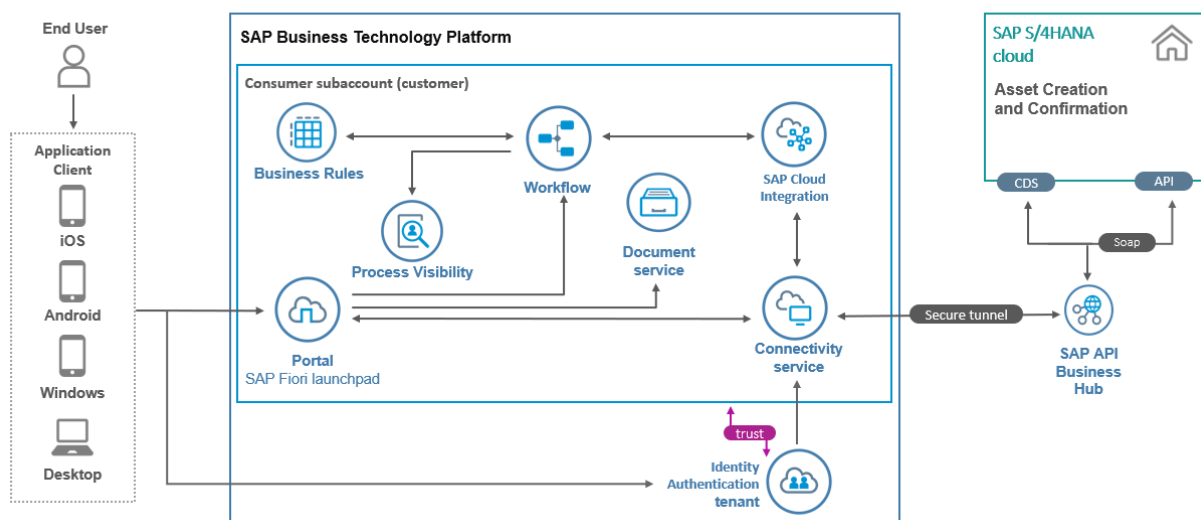
The Manage Asset Creation Requests content package enables SAP S/4HANA customers to automate the approvals required for creation of Asset Master using SAP Build Process Automation or SAP Workflow Management without additional development in SAP S/4HANA.

Salient features of this content package are:

- Plug and Play with SAP S/4HANA without any additional development.
- Process steps delivered to approve an asset.
- Automatic email notification to parties involved.
- Business Rules provides flexibility in determining approver determination strategy and approvers.
- Custom validation on asset attributes using Business Rules.
- New variant of the process can be created using the pre-delivered process steps in a no-code / low-code approach.
- Out-of-the-box visibility into key process performance indicators of the asset.

Disclaimer: Please note that this content package is a template to facilitate custom build extensions. A full-fledged master data management solution, with data quality management and governance capabilities is available on SAP Business Technology Platform, please see [SAP Master Data Governance](#).

Manage Asset Creation Requests



Live Process Artifacts

A package consists of process templates, process steps, 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 approval process. The **Manage Asset Creation Requests** package contains the following process template:

Asset Creation – Create asset in SAP S/4HANA with a multilevel approval process. It includes start and end process steps for easy no-code/low-code configuration.

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 an activity to determine the approvers, an approval task itself, notifications activities, and handle the approval result. Table 1 represents the list of process steps available to be used in Manage Asset Creation Requests.

Table 1. Process Steps

Process Steps	Cardinality	Detailed Description
AssetValidation	1..1	Based on the company code, asset class, cost center and plant it will validate the asset.
AssetApproval	1.. N	This step initiates and completes one level of approval for the Fixed Asset creation. This step can occur multiple times in the process variant. Based on the number of approvals required, this step can be re-used multiple times. It is possible to rename the step to appropriate approval roles, for example, 'Approval by Finance Head'. The approver is determined based on various conditions using a business rule. The requestor and the approver are automatically notified via mail about the decision and approval task, respectively.
AssetCreation	1..1	Create Asset in SAP S/4HANA system after completion of all the configured approval steps. This step can occur only once, and it should be the last step in a process variant. If there is any success or error while creating or updating the Asset Creation, notification mail will be triggered to the Initiator.

A process step can have customizable properties and they could determine the outcome of the process step. For example, the Approval step can be reused multiple time and based on these properties the approver is determined.

Approver can see asset approval history based on asset creation details. In rework task, if asset creation details objects are modified by approver, then approval history will be shown as per the updated asset creation history. If asset creation details are modified again to old asset object, then old history will be visible to the approver based on asset creation details object. Please see Table 2 for more details

Table 2. Process Step Properties

Process Step	Properties	Detailed Description
AssetApproval	Level Name	Based on the name of the approval level, the approver is determined using a business rule. Default value is Procurement Head, and it can be configured to any approval level, provided the same approval level name is configured in the business rule

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
companyCode	Company Code
costCenter	Cost Center
assetClass	Asset Class
Plant	Plant
approvalStatus	Approval Status
Description	Description
inventoryNo	Inventory Number
Supplier	Supplier
Manufacturer	Manufacturer
Requestor	Requestor
initiatorUserId	Initiator User Id
initiatorEmail	Initiator Email Id
AssetNumber	Asset Number

The following (sample) context required to start the Workflow:

```
{
  "assetDetails": {
    "assetClass": "1200",
    "companyCode": "1010",
    "plant": "1010",
    "costCenter": "10101501"
  },
  "AssetCreationDetails": {
    "companyCode": "1010",
    "supplierName": "Inland-Lohnbearbeiter A, DE",
    "lastName": "Doe",
    "leadingWFInstanceId": "70f56ccd-45fc-11ec-bdcf-eeee0a9f4995",
    "companyCodeName": "Company Code 1010",
    "costCenter": "10101501",
    "description": "Asset creation approval request",
    "assetClass": "1200",
    "requestor": "CB99800000013",
    "manufacturer": "DUMMY",
    "firstName": "John",

```

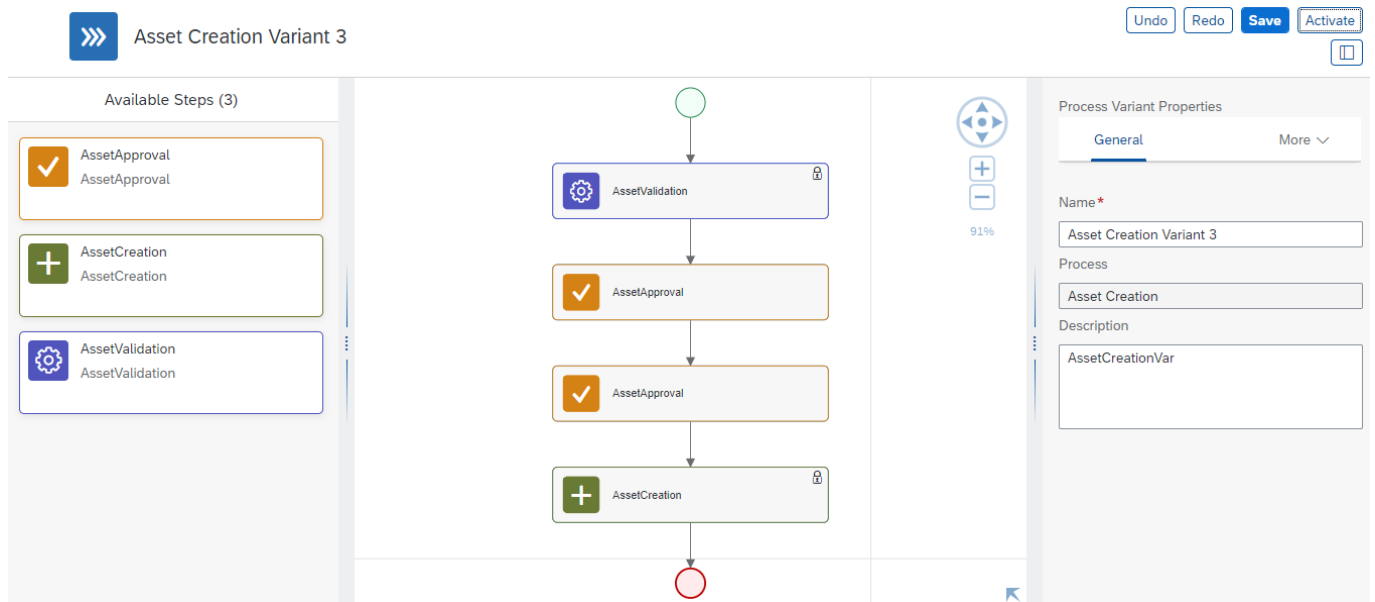
```
"initiatorUserId": "john.doe@example.com",
"inventoryNo": "101",
"plant": "1010",
"supplier": "10300007",
"requestDate": "2021-11-15T10:11:49.115Z",
"costCenterName": "R&D (DE)",
"location": "",
"assetClassName": "Land Improvements",
"plantName": "",
"initiatorEmail": "john.doe@example.com"
}
}
```

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.

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

An example of an Manage Asset Creation Requests variant is given below. It is possible to configure multiple variants of this process.



Import Manage Asset Creation Requests and Configure Process Variants with SAP Build Process Automation

1. In the [SAP Build Process Automation Store](#), search for live process package Manage Asset Creation Requests 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 Asset Creation Requests. 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 Asset Creation Requests" 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 Asset Creation Requests and Configure Process Variants with SAP

Workflow Management

1. In Process Flexibility Cockpit app, search for content package Manage Asset Creation Requests 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 Asset Creation Requests” 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 Asset Creation Requests” 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.

Manage Asset Creation Requests process will enable the customers to flexibly configure decisions to gain the flexibility.

1. Asset Creation Request Validation
2. Determine Approver
3. Approver Determination Strategy
4. Determine Process Administrator

Asset Creation Request Validation

With this decision, it is possible to add any business-specific validation on Asset Creation. For Example, enable/disable the cloud application for a specific company code, asset class, cost center, plant etc.

Rule Service: Asset Creation Request Validation

Input Data Object: Asset Creation Record Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Company Code	String	Company Code of requested Asset Creation.
Asset Class	String	Asset Class of requested Asset Creation
Cost Center	String	Cost Center of requested Asset Creation
Plant	String	Plant of requested Asset Creation
Level Name	String	Approval Level Name for which specific approver will approve the request

Output: Validation Result (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Validation Message	String	Validation Message
Is Validated	Boolean	'True' if validation is successful and 'False' if validation failed.

Determine Approvers

Rule service used to identify the potential approvers based on different company policy. Approver will be determined depending on company code, cost center, asset class and plant. In this business rules Due date will be this business rules determined by a text rule based on asset details. Every approver will have their respective due date in their approval task.

Rule Service: Determine Approver

Input Data Object: Asset Creation Record Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Company Code	String	Company Code of requested Asset Creation
Asset Class	String	Asset Class of requested Asset Creation
Cost Center	String	Cost Center of requested Asset Creation
Plant	String	Plant of requested Asset Creation.
Level Name	String	Approval Level Name for which specific approver will approve the request

Along with the above attributes the other attributes can also be added as input parameters in this business rule.

Output: Approver Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
-----------	------	-------------

User Id	String	User ID of the individual approver. .
Group ID	String	A user group who can approve the step-in workflow. .
Mail ID	String	Email address of the approver or approvers.
Is Approval Required	Boolean	Check if approval is required. True for required and false not required.
Unit of Time	String	Unit of time of due duration .
Task Due Duration	Number	The task due duration target by which the user task needs to be completed.
Due Duration Reference Event	String	Reference to an event in the workflow to determine the target of the user task

Due Date Determination Policy

Determine the due date duration for each approval step of the asset creation approval process. Based on the reference to determine the due date and the due duration, the approval task's deadline is calculated automatically.

Rule Name: Determine Task Due Date

Input Data Object: Asset Creation Record Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Company Code	String	Company code of requested Asset Creation
Asset Class	String	Asset Class of requested Asset Creation
Cost Center	String	Cost Center of requested Asset Creation
Plant	String	Plant of requested Asset Creation
Level Name	String	Approval Level Name for which specific approver will approve the request

Output: Duration Due (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Duration Reference	String	Reference event in workflow that is used to determine the due date of user task
Unit of Time	String	Unit of Time
Duration	Number	Duration

Approver Determination Strategy

The application will have two way to identify approver. To identify the approver determination strategy below rule service will be used.

Rule Service: Approver Determination Strategy

Input Data Object: Asset Creation Record Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
-----------	------	-------------

Company Code	String	Company code of requested Asset Creation .
Asset Class	String	Asset Class of requested Asset Creation
Cost Center	String	Cost center of requested Asset Creation
Plant	String	Plant of requested Asset Creation .
Level Name	String	Approval Level Name for which specific approver will approve the request

Output: Approver Determination Strategy (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Determination Strategy	String	Determination strategy can either "Business Rule" or "External Service" depending on Invoice details.

Determine Process Administrator

If approvers are not determined, then call a configuration rule where the customer has maintained the details about Process Administrator.

Once the process administrator is determined, then send a notification to the admin and create a user task. In the user task, the admin could either directly enter the user id/group and email address of the task owner or the administrator could fix the rule.

Rule Service: Determine Process Administrator

Input: Asset Creation Record Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Company Code	String	Company code of requested Asset Creation
Asset Class	String	Asset Class of requested Asset Creation
Cost Center	String	Cost Center of requested Asset Creation
Plant	String	Plant of requested Asset Creation
Level Name	String	Approval Level Name for which specific approver will approve the request

Output Process Administrator Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Administrator User IDs	String	User ID List (comma separated)
Administrator Group IDs	String	Group ID List (comma separated)
Administrator Email IDs	String	Email ID List (comma separated)

Asset Details Vocabulary

For Manage Asset Creation Requests Workflow start condition or step condition a separate business rules project will be used, named as **Asset Details Vocabulary**. Depending on Asset Details Vocabulary process variant will be determined.

Input: Asset Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Company Code	String	Company code to which the asset will belong to
Asset Class	String	Asset Class of the asset to be created
Cost Center	String	Cost Center of the asset
Plant	String	Plant associated with the asset creation

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 Asset Creation Requests process content package provides 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 Asset Creation Requests Project.
3. Click to open **Manage Asset Creation Requests** 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 Visibility Cockpit.
2. Select Manage Asset Creation Requests tile.
3. Click Visibility Scenarios tile.
4. Select **Manage Asset Creation Requests** scenario

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

Access Process Workspace in SAP Build Process Automation

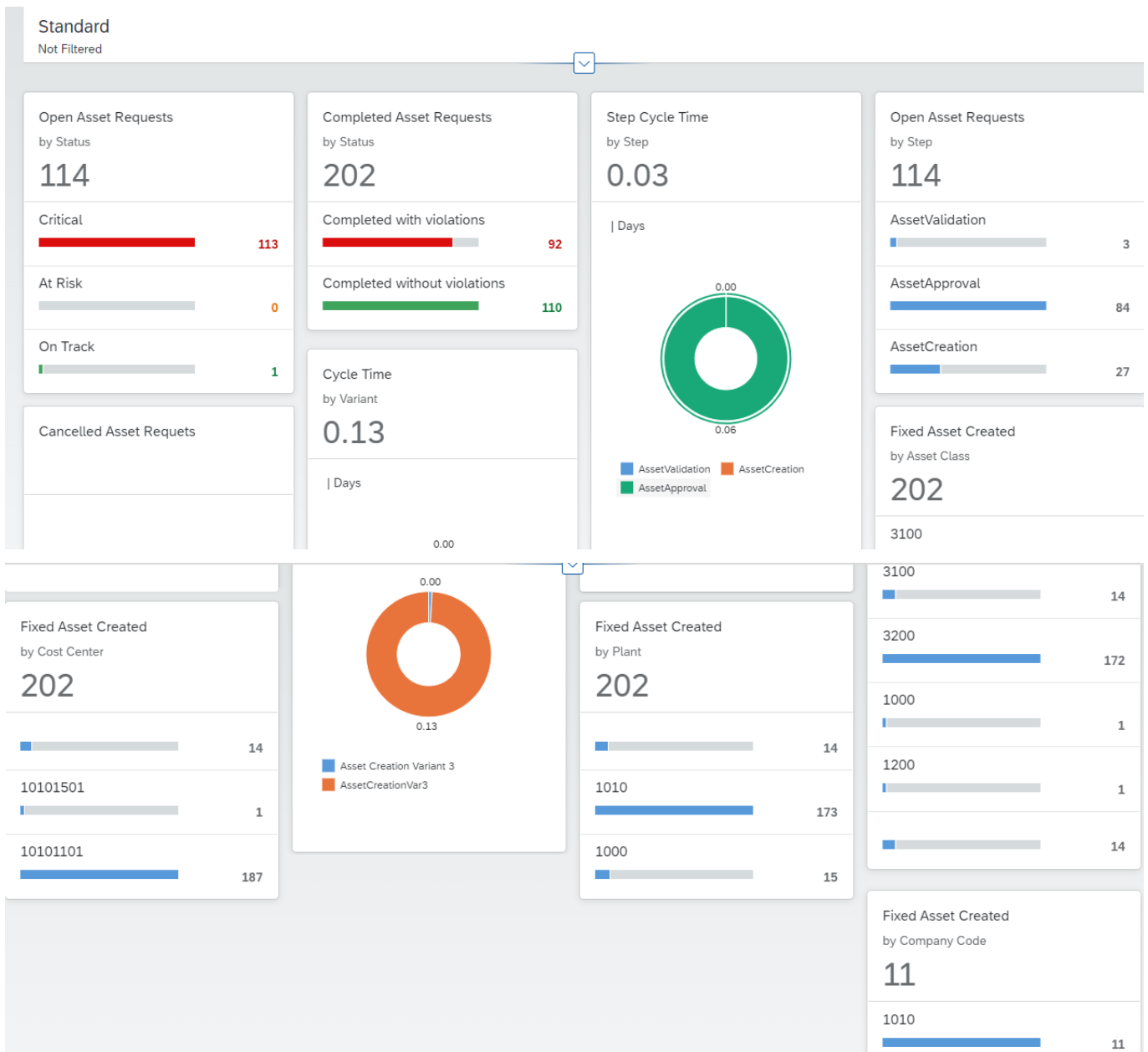
1. The process visibility scenario can be accessed using SAP Launchpad Service. Refer to the help document for [creating UI applications on central SAP Fiori Launchpad](#) for SAP Build Process Automation.
2. Once you have added the applications process Visibility Scenario Instances (with app ID com.sap.spa.pv.instances) and Visibility Scenario Dashboard (with app ID com.sap.spa.pv.ovp), follow the below steps to add a tile to access the Manage Asset Creation Requests 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	scenarioid
Default Value	com.sap.content.assetcreation.Asset_Creation
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 Asset Creation Requests”.
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 Asset Creation Requests
3. Click Live Process Insights Manage Asset Creation Requests
4. User will see the below detailed process visibility dashboard.

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



Appendix

Approver Determination Strategy – External Service

The process content provides an option to determine approvers using an alternative strategy, i.e., External Service instead of Business Rule.

To leverage this strategy, the Approve Process step has a provision to call an iFlow with the following configuration. This iFlow needs to be implemented as per your business requirement.

Destination	CPI [Refer to Setup Guide]
CPI Adapter	HTTP

Endpoint	/http/AssetApproverDetermination
HTTP Method	POST
Request Payload Type	JSON(application/json)
Request Payload Structure	<pre>{ "AssetApproverPayload": { "Plant": "1010", "CostCenter": "10101101", "LevelName": "Procurement Head", "AssetClass": "3200", "CompanyCode": "1010" } }</pre>
Response Payload Structure	<pre>{ "Result": [{ "ApproverDetails": { "DueDurationReference": "Task", "UnitOfTime": "h", "UserID": "xyz@example.com", "DueDuration": 2, "IsApprovalRequired": true, "GroupID": "Approver_GroupId", "MailID": "xyz@example.com" } }] }</pre>