

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

Setup Guide

Project Manager Project Creation with SAP Workflow Management or SAP Build Process Automation

Table of Contents

Table of Contents	2
Overview	3
Required SAP BTP Services	4
Setup and Configuration	5
Configure SAP Build Process Automation	5
Configure Process Automation Destination	5
Configure OAuth2ClientCredentials SAP Build Process Automation Destination (Service Instance)	5
Configure SAP Workflow Management	6
Configure Workflow Email Destination	7
Configure Workflow Destination	7
Configure Business Rules Destination	8
Configure Destination Configuration Destination	9
Configure Cloud Integration Destination	9
Set up custom Function Module	11
Configure Custom CDS View in SAP S/4HANA	11
ProjectDataStatus	11
ProjectData	12
WBSElementData	13
AdditionalProjectData	16
Configure Cloud Connector	17
Configure Custom CDS View Destination	17
Import, Configure and deploy Integration Content	17
Configure SAP Central Fiori Launchpad Site	19
Optional: Making Custom changes in SAP Workflow Management	20
Optional: Making Custom changes in SAP Build Process Automation	21

Overview

This document provides information about setting up the SAP Business Technology Platform account to consume the workflow content package **Project Manager Project Creation**. The main audience of this document are technical IT/system administrators.

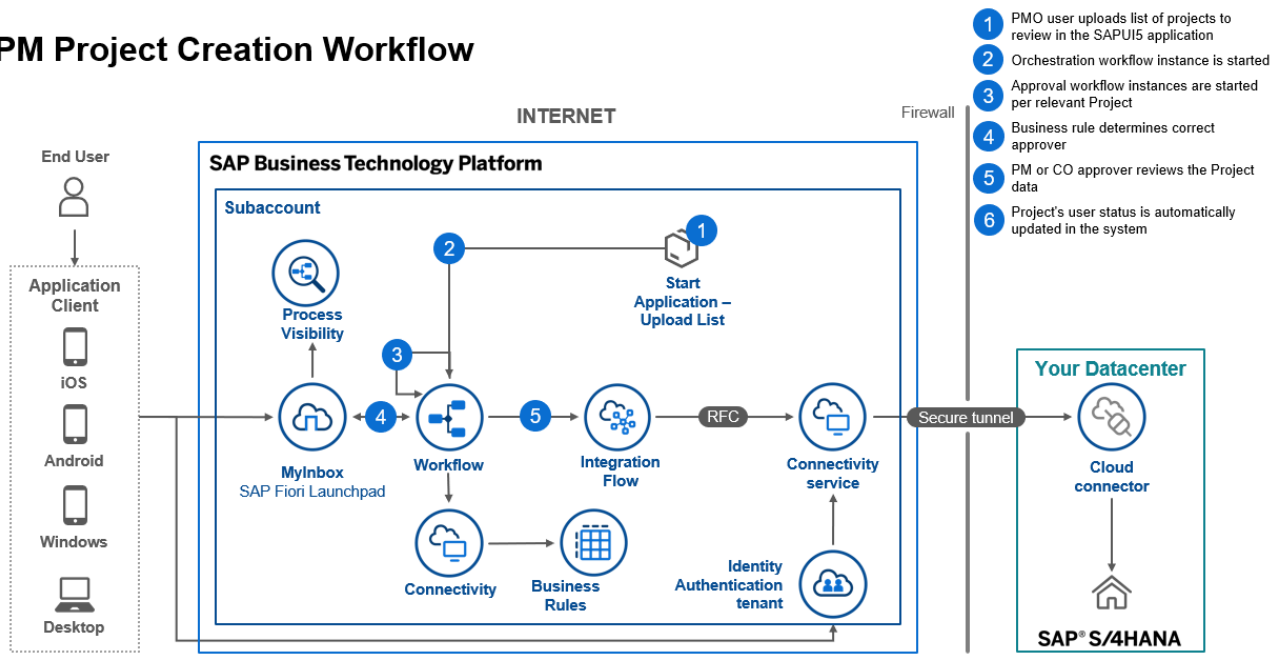
The scenario enables a Project Management Office (PMO) to inform the Project Controller about required reviews to a list of manually created projects in SAP Project System (SAP PS). As soon as the Project Controller is finished, the Project Management Office and Project Manager will be informed about the approved projects or about missing project information.

The scenario immensely supports the communication and active interaction between the Project Management Office and the Project Controlling in the project approval process. Closer cooperation is encouraged.

This package contains the following features:

- Automatically update project status to reflect the current approval status in the Workflow
- Orchestrate communication between project management and project controlling

PM Project Creation Workflow



Required SAP BTP Services

The workflow content package **Project Manager Project Creation** is intended to be used for SAP S/4HANA Project System 1709 and upwards and requires the following services in SAP Business Technology Platform.

- SAP Build Process Automation or SAP Workflow Management to orchestrate the process.
- SAP Integration Suite to update and get Project data.
- SAP Connectivity service (cloud connector) to establish access to SAP S/4HANA on-premise.
- SAP Cloud Portal service or SAP Launchpad service to access the apps that are involved in the process.
- SAP Cloud Identity Services - Identity Authentication (optional).
- SAP Business Application Studio to modify/deploy the SAPUI5 applications.

Setup and Configuration

The **Project Manager Project Creation** content package requires SAP Build Process Automation or SAP Workflow Management subscription or a CPEA contract. Based on which service you plan to use, follow the appropriate section to configure either SAP Build Process Automation or SAP Workflow Management.

Configure SAP Build Process Automation

Follow the setup and configuration section of SAP Build Process Automation:

1. [Subscribe to SAP Build Process Automation \(Standard Plan\)](#)
2. [Configure Destinations for Live Process Projects](#)
 - a. Import Package Destination
 - b. Business Rules Destination to support start and step conditions
3. [Optional] [Configure SAP Launchpad Service for SAP Build Process Automation](#)

Configure Process Automation Destination

A HTTP destination is required in the BTP subaccount where SAP Build Process Automation is subscribed. Create a destination with name "sap_process_automation_service" with the following configuration if it doesn't exist already. Please refer how to [create a HTTP destination](#) OAuth 2.0 Authentication (client credentials).

Name	sap_process_automation_service
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentias
URL	<"endpoints"."api">
Client ID	<"uaa":"clientis">
Client Secret	<"uaa":"clientsecret">
Token Service URL	<"uaa":"url"/>/oauth/token

Note: While creating the service instance for SAP Build Process Automation service, make sure that at least the required scopes are assigned (help documentation to enable technical authentication to [access the SAP Build Process Automation APIs](#)). If the scopes are not assigned, you can also [update the service instance](#) with the required scopes.

Configure OAuth2ClientCredentias SAP Build Process Automation Destination (Service Instance)

Ignore this step if there is already a destination using SAP Build Process Automation service instance created.

Create new destination to call SAP Build Process Automation APIs using a service route from SAP UI5 component. For more details, follow the help document:

<https://help.sap.com/viewer/cca91383641e40ffbe03bdc78f00f681/Cloud/en-US/685f383cebb54c009b2fac633b32c90f.html>.

Additional Properties	
endpoints	{"api":"https://k...
html5-apps...	{"app_host_id":"000...
saasregistry...	true
sap.cloud.s...	com.sap.spa.process...
sap.cloud.s...	spa

Configure SAP Workflow Management

Project Manager Project Creation content package requires SAP Workflow Management subscription or a CPEA contract. Follow the setup and configuration section of SAP Workflow Management.

<https://help.sap.com/viewer/6f55baaf330443bd8132d071581bbae6/Cloud/en-US/d7910e2bf7f64afc9d0eb21b0cc9e84d.html>

Note: While creating the service instance for Workflow service, make sure that at least the following scopes are assigned (help documentation to [enable technical authentication](#) to access the workflow APIs). If the scopes are not assigned, you can also [update the service instance](#) with the following scopes.

- WORKFLOW_INSTANCE_GET
- WORKFLOW_INSTANCE_START
- WORKFLOW_INSTANCE_CANCEL

Configure Workflow Email Destination

Configure workflow email destination to automatically send email notification to the involved parties. For more information on configuring the destination, see [configure workflow email destination](#).

Configure Workflow Destination

A HTTP destination is required in the BTP subaccount where SAP Workflow Management is subscribed. Create a destination with name "Workflow" with the following configuration, if it doesn't exist already. Please refer how to [create a HTTP destination](#) OAuth 2.0 Authentication (client credentials).

Name	Workflow
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentials
URL	<rest_api_url>
Client ID	<client ID>
Client Secret	<client secret>
Token Service URL	<uaa.url>/oauth/token

Configure Business Rules Destination

A HTTP destination is required in the Cloud Foundry account where SAP Workflow Management is subscribed. Create a destination with name "BUSINESS_RULES" with the following configuration, if it doesn't exist already. Please refer how to [create a HTTP destination](#) and [how to access business rules APIs](#) using OAuth 2.0 Authentication (client credentials)

Name	BUSINESS_RULES
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentials
URL	<rule_runtime_url>/rules-service
Client ID	<client ID>
Client Secret	<client secret>
Token Service URL	<uaa.url>/oauth/token

Configure Destination Configuration Destination

A HTTP destination is required in the Cloud Foundry account where SAP Workflow Management is subscribed. Create a destination with name “destination-read” with the following configuration, if it doesn’t exist already. Please refer how to [create a HTTP destination](#).

Take the OAuth details from a destination service instance in your subaccount

This destination is used to read the configuration of the destination pointing to SAP S/4HANA, returning the sap-client parameter to the workflow instance so that it can added to the request URLs.

Name	destination-read
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentials
URL	<a href="https://destination-configuration.cfapps.<YOURDATACENTER>.hana.ondemand.com/destination-configuration/v1/destinations/">https://destination-configuration.cfapps.<YOURDATACENTER>.hana.ondemand.com/destination-configuration/v1/destinations/
Client ID	<client ID>
Client Secret	<client secret>
Token Service URL	<uaa.url>/oauth/token

Configure Cloud Integration Destination

To call an integration flow, a HTTP destination is required in the SAP BTP tenant where the SAP Workflow Management is subscribed. Create a destination called CPI with either Basic Authentication or OAuth2ClientCredentials.

Destination with Basic Authentication

Name	CPI
Type	HTTP
Proxy Type	Internet
Authentication	Basic Authentication
URL	<runtime.url>
Username	<user>
Password	<password>

Destination with OAuth2ClientCredentials Authentication

Name	CPI
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentials
URL	<runtime.url>
Client Id	<client ID>
Client Secret	<client secret>
Token Service URL	<oauth.url.for.clientCredentials>

Additional Properties to Destination

Additionally, add the following properties in the destination for cloud integration.

WebIDEEEnabled	true
WebIDESystem	CPI
WebIDEUsage	odata_gen

Set up custom Function Module

This function module is to set the status of the project to approved and then release it. Download the codes from [SAP Note 3129117](#) and name the custom function module as ZZBAPI_BUS2001_SET_STATUS. This function module will be consumed by the integration flow using RFC adapter. If the function module is created with a different name, please change the configuration of the integration flow "Release Project" to the appropriate name.

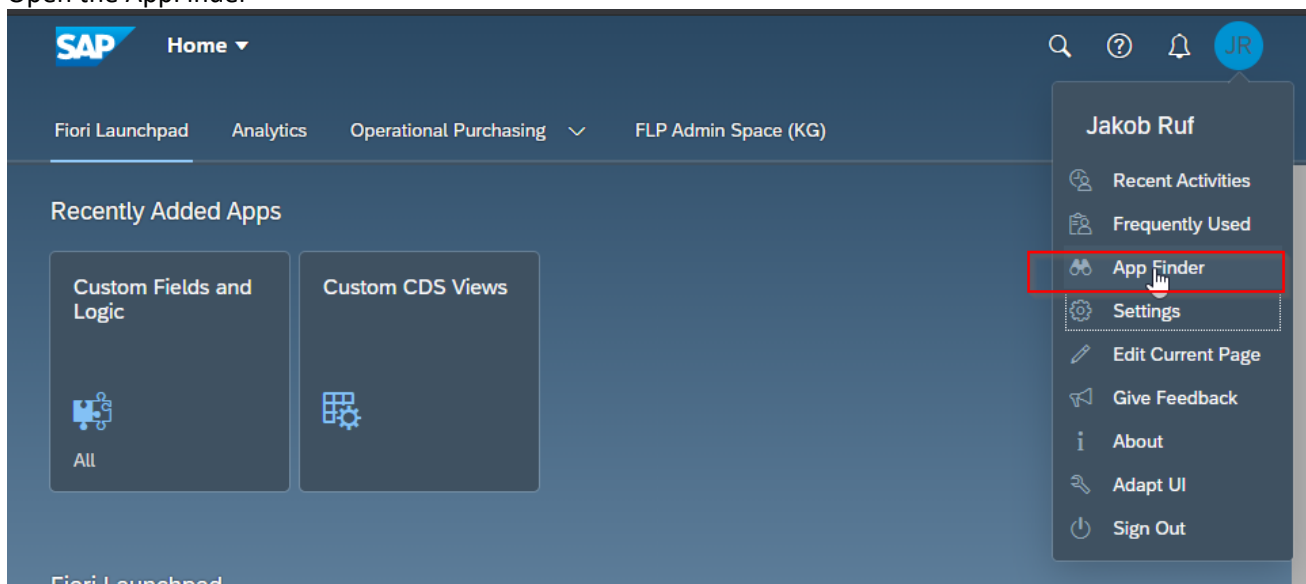
Configure "Release Project"

Sender	Receiver	More
Type: All Parameters		
Custom BAPI: ZZBAPI_BUS2001_SET_STATUS		
minute: 30		
TransactionHandling: Required		

Configure Custom CDS View in SAP S/4HANA

ProjectDataStatus

Open the Fiori Launchpad of your SAP S/4HANA system
Open the AppFinder



Search in category "All" for the App "Custom CDS Views"

Open "Custom CDS Views"

Create a new CDS View

Enter "ProjectDataStatus" as the label and select "Standard" as the Scenario

Create the View

Go into the view and in section "Data Sources", add a new Primary Data Source

Select I_StatusObjectStatusChange as the Data Source

Go to section "Elements"

Add the elements as listed below:

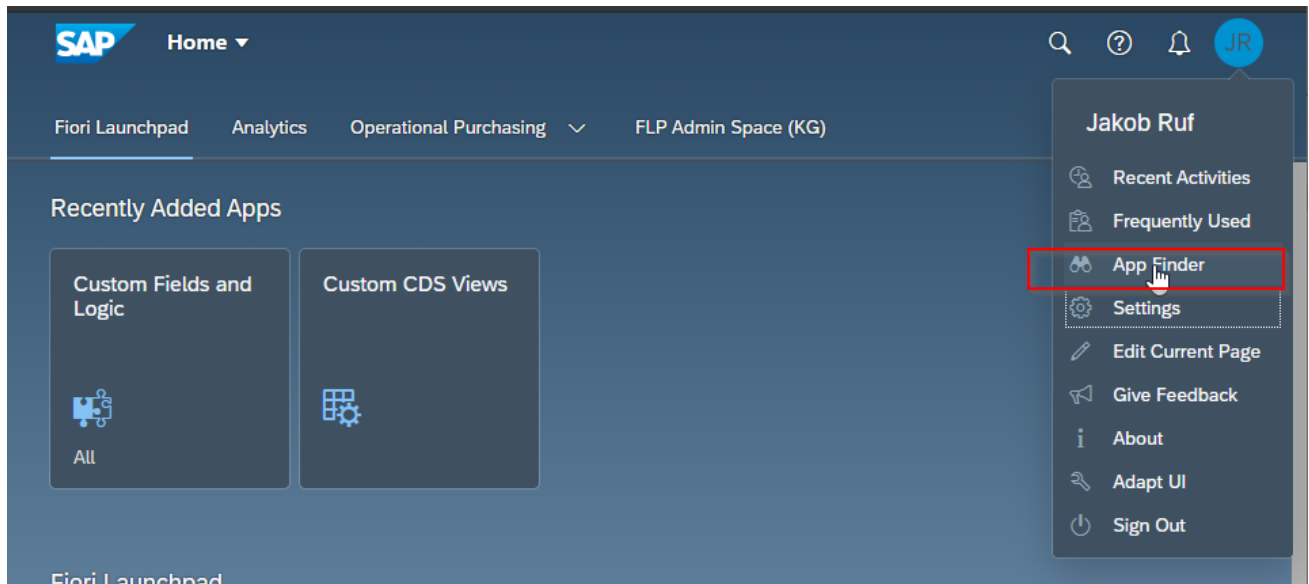
Key	Alias	Path
X	StatusObject	I_StatusObjectStatusChange.StatusObject
X	StatusCode	I_StatusObjectStatusChange.StatusCode
X	StatusObjectStatusChangeNumber	I_StatusObjectStatusChange.StatusObjectStatusChangeNumber
	StatusIsInactive	I_StatusObjectStatusChange.StatusIsInactive

Publish your view

ProjectData

Open the Fiori Launchpad of your SAP S/4HANA system

Open the AppFinder



Search in category "All" for the App "Custom CDS Views"

Open "Custom CDS Views"

Create a new CDS View

Enter "ProjectData" as the label and select "External API" as the Scenario

Create the View

Go into the view and in section "Data Sources", add a new Primary Data Source

Select I_ProjectData as the Data Source

Add a secondary Data Source from the CDS View your created before (ZZ1_ProjectDataStatus)

Define the Join Condition as follows:

StatusObject Equal I_ProjectData.ProjectObject

Go to section "Elements"

Add the elements as listed below:

Key	Alias	Path
X	ProjectInternalID	I_ProjectData.ProjectInternalID
	Project	I_ProjectData.Project
	ProjectDescription	I_ProjectData.ProjectDescription
	ProjectExternalID	I_ProjectData.ProjectExternalID
	CreationDate	I_ProjectData.CreationDate
	ProjectObject	I_ProjectData.ProjectObject
	_ProjectDataStatus	_ZZ1_ProjectDataStatus

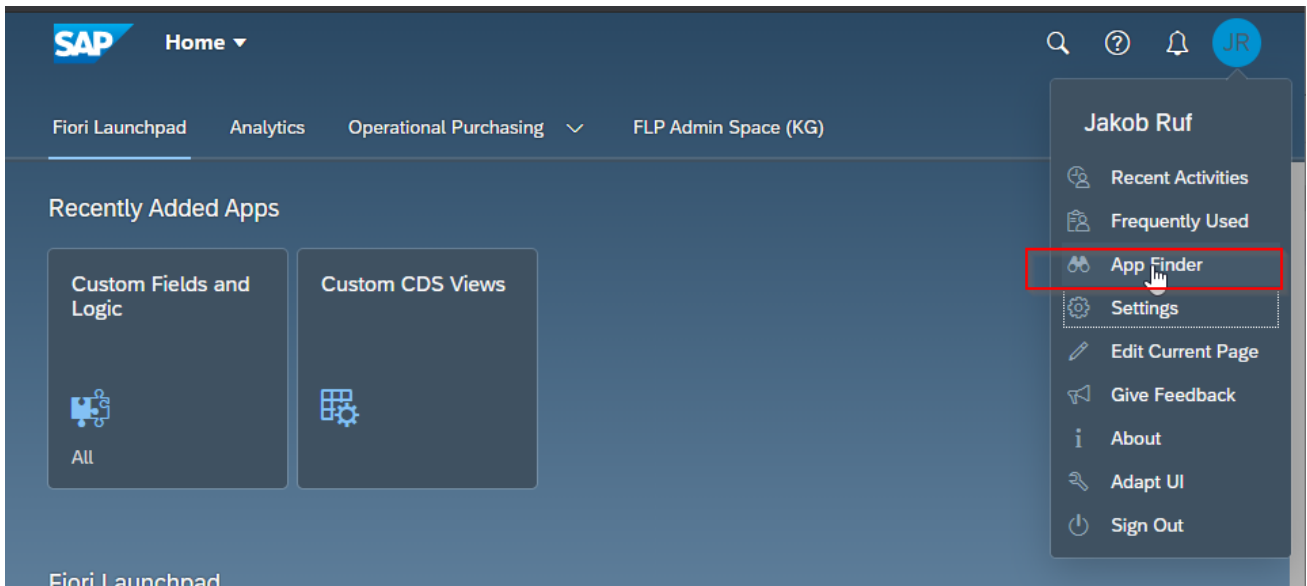
Publish your view

In section "Next steps", follow the instructions to create a Communication Scenario + Communication Arrangement and assign it to the user you are using in your destination in SAP BTP Cockpit

WBSElementData

Open the Fiori Launchpad of your SAP S/4HANA system

Open the AppFinder



Search in category "All" for the App "Custom CDS Views"

Open "Custom CDS Views"

Create a new CDS View

Enter "WBSElementData" as the label and select "Standard" as the Scenario

Create the View

Go into the view and in section "Data Sources", add a new Primary Data Source

Select I_WBSElementData as the Data Source

Go to section "Elements"

Add the elements as listed below:

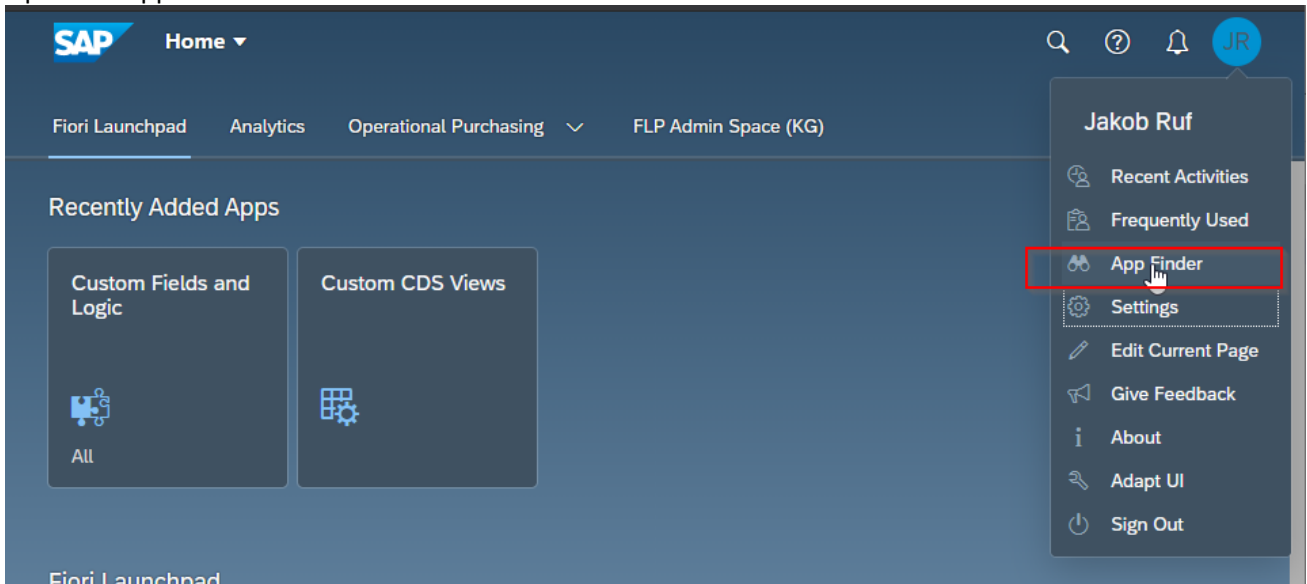
Key	Alias	Path
X	WBSElementInternalID	I_WBSElementData.WBSElementInternalID
	WBSElementExternalID	I_WBSElementData.WBSElementExternalID
	WBSElement	I_WBSElementData.WBSElement
	WBSElementShortID	I_WBSElementData.WBSElementShortID
	WBSDescription	I_WBSElementData.WBSDescription
	ResponsiblePerson	I_WBSElementData.ResponsiblePerson
	ResponsiblePersonName	I_WBSElementData.ResponsiblePersonName
	ProjectType	I_WBSElementData.ProjectType
	ProjectInternalID	I_WBSElementData.ProjectInternalID
	CreatedByUser	I_WBSElementData.CreatedByUser
	CreationDate	I_WBSElementData.CreationDate
	LastChangedByUser	I_WBSElementData.LastChangedByUser
	LastChangeDate	I_WBSElementData.LastChangeDate

	ForecastedStartDate	I_WBSElementData.ForecastedStartDate
	ActualStartDate	I_WBSElementData.ActualStartDate
	ForecastedEndDate	I_WBSElementData.ForecastedEndDate
	BasicStartDate	I_WBSElementData.BasicStartDate
	ActualEndDate	I_WBSElementData.ActualEndDate
	BasicEndDate	I_WBSElementData.BasicEndDate
	ForecastedDuration	I_WBSElementData.ForecastedDuration
	ForecastedDurationUnit	I_WBSElementData.ForecastedDurationUnit
	ActualDuration	I_WBSElementData.ActualDuration
	ActualDurationUnit	I_WBSElementData.ActualDurationUnit

Publish your view

AdditionalProjectData

Open the Fiori Launchpad of your SAP S/4HANA system
Open the AppFinder



Search in category "All" for the App "Custom CDS Views"

Open "Custom CDS Views"

Create a new CDS View

Enter "AdditionalProjectData" as the label and select "External API" as the Scenario

Create the View

Go into the view and in section "Data Sources", add a new Primary Data Source

Select I_WBSElementBasicData as the Data Source

Add a secondary Data Source from the CDS View your created before (ZZ1_WBSElementData)

Define the Join Condition as follows:

WBSElementInternalID Equal I_WBSElementBasicData.WBSElementInternalID with cardinality 0..1

Go to section "Elements"

Add the elements as listed below:

Key	Alias	Path
X	WBSElementInternalID	I_WBSElementBasicData.WBSElementInternalID
	WBSElement	I_WBSElementBasicData.WBSElement
	WBSDescription	I_WBSElementBasicData.WBSDescription
	ProjectInternalID	I_WBSElementBasicData._Project.ProjectInternalID

ProjectExternalID	I_WBSElementBasicData._Project.ProjectExternalID
Project	I_WBSElementBasicData._Project.Project
ProjectDescription	I_WBSElementBasicData._Project.ProjectDescription
_ZZ1_WBSElementData	_ZZ1_WBSElementData

Publish your view. If you get a warning SDDL_PARSER_MSG:248, you can ignore it.

In section "Next steps", follow the instructions to create a Communication Scenario + Communication Arrangement and assign it to the user you are using in your destination in SAP BTP Cockpit.

Configure Cloud Connector

For SAP S/4HANA on-premise landscape, configure cloud connector to enable secure tunnel to SAP BTP tenant. Please refer the help documentation to [configure Cloud Connector](#).

Configure Cloud Connector so that the following paths and all their subpaths are exposed:

/sap/opu/odata/sap/

Configure Custom CDS View Destination

A HTTP destination is required in the Cloud Foundry account where SAP Workflow Management is subscribed. Create a destination with name "S4HANA_PmProjectCreation_ProjectData" with the following configuration, if it doesn't exist already. Please refer how to [create a HTTP destination](#).

Name	S4HANA_PmProjectCreation_AdditionalProjectData
Type	HTTP
Proxy Type	OnPremise
Authentication	BasicAuthentication
URL	<OData base URL of SAP S/4HANA> /sap/opu/odata/sap/ZZ1_ADDITIONALPROJECTDATA_CDS/ZZ1_AdditionalProjectData
User	<COMMUNICATION_USER>
Password	<COMMUNICATION_PASSWORD>
Additional Properties	sap-client: <client number>

Import, Configure and deploy Integration Content

This package utilizes Cloud Integration capability within SAP Integration Suite to provide integration between SAP ERP (or SAP S/4HANA) and SAP Build Process Automation or SAP Workflow

Management. Further details can be found in dedicated integration guide of the integration package **“SAP Build Process Automation Integration with SAP S/4HANA for Project Manager Project Creation”**.

Configure SAP Central Fiori Launchpad Site

If you plan to use SAP Launchpad service, then configure [SAP Central Fiori Launchpad Site with Workflow Applications](#) using help documentation.

Access your Business Technology Platform Cockpit

Go to Security → Users and make sure that your user is assigned the role collection Launchpad_Admin or a role collection that contains this role collection.

Go to Instances and Subscriptions and open Launchpad Service

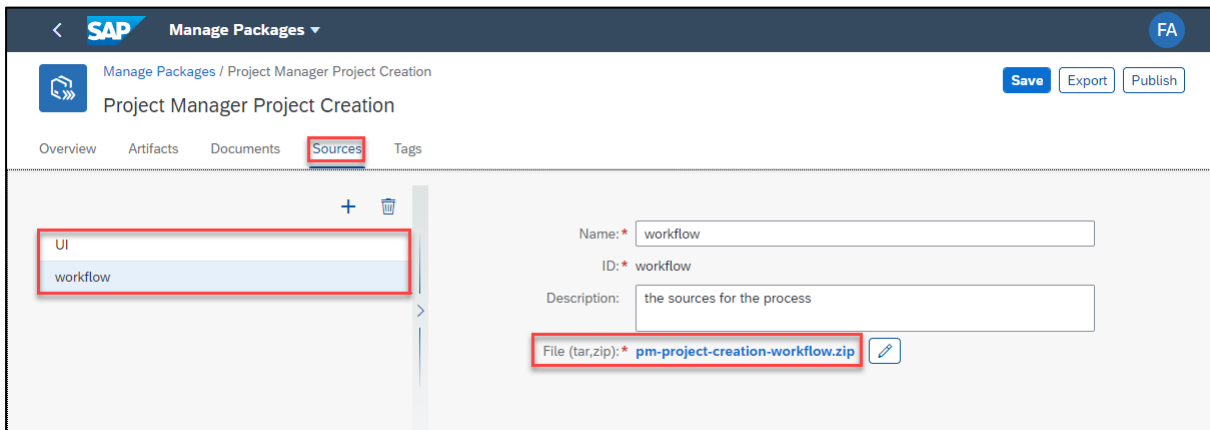
Go into Content Manager, click "Explore", open HTML5 Apps, look for "StartUI" with ID "com.sap.content.workflowuiStartUI" and add it to your content.

Add it to a catalog, group and role that is assigned to the Launchpad you plan on using for the workflow start.

Optional: Making Custom changes in SAP Workflow Management

Prerequisite: an account with access to SAP Business Application Studio as well as space developer permissions in BTP.

The source code for both the process and the SAPUI5-based user interfaces are available as part of the content package. With this, custom modifications can be implemented to adapt the content for specific needs.



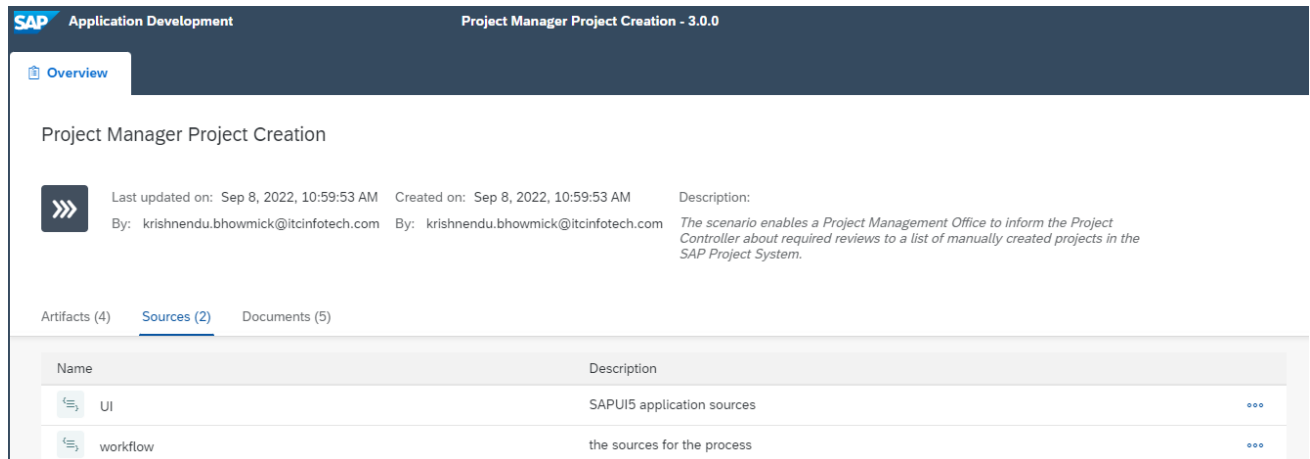
- in **Manage Package** app, select **Sources** tab
- select the archive you want to download in the list on the left side
- click on the blue filename behind **File (tar, zip)** to download the attached source archive
- Import the archive into SAP Business Application Studio
- make any necessary modifications
- Build and deploy the MTA archive, using the space developer credentials

Please refer to the documentation for [SAP Business Application Studio](#), the documentation for [Modeling a Workflow](#) and the documentation for [Creating User Interfaces](#) for details.

Optional: Making Custom changes in SAP Build Process Automation

Prerequisite: an account with access to SAP Business Application Studio as well as space developer permissions in BTP.

The source code for both the process and the SAPUI5-based user interfaces are available as part of the content package. With this, custom modifications can be implemented to adapt the content for specific needs.



- in **Application Lobby**, search the package name and select **Sources** tab
- select the archive you want to download in the list on the left side
- click on the blue filename behind **File (tar, zip)** to download the attached source archive
- Import the archive into SAP Business Application Studio
- make any necessary modifications
- Build and deploy the MTA archive, using the space developer credentials

Please refer to the documentation for [SAP Business Application Studio](#), the documentation for [Modeling a Workflow](#) and the documentation for [Creating User Interfaces](#) for details.