

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

## Setup Guide

# Joint Venture Cash Call Approval using SAP Build Process Automation

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## Required SAP Business Technology Platform Services

The workflow content package **Joint Venture Cash Call Approval** is intended to be used for SAP S/4HANA and requires the following services in SAP Business Technology Platform:

- SAP Build Process Automation
- SAP Integration Suite
- SAP Connectivity service
- SAP Business Application Studio
- SAP Application Runtime Service
- SAP Work Zone, standard or advanced
- SAP Cloud Identity Services - Identity Authentication (optional)

## Setup and Configuration

**Joint Venture Cash Call Approval** content package requires SAP Build Process Automation. Based on which service you plan to use, follow the appropriate section to configure either SAP Build Process Automation.

### SAP S/4HANA

#### Configure APIs in SAP S/4HANA

Following APIs are needed to be configured in SAP S/4HANA to use the content package.

##### RFC Required

1. ZWF\_FM\_JVCASHCALL

**Note:** Steps to implement the custom RFC are mentioned in the section “Deploy Custom ABAP Objects” in this document.

#### 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](#). Services/Resources that need to be exposed from SAP S/4HANA on-premise using Cloud Connector.

Resources	Protocol	Backend-Type
ZWF_FM_JVCASHCALL	RFC	ABAP System

# SAP Business Technology Platform Cockpit

## Configure SAP Build Process Automation

Follow the setup and configuration section of SAP Process Automation:

1. [Subscribe to SAP Process Automation \(Standard Plan\)](#)
2. [Configure Destinations for Live Process Projects](#)
  - Import Package Destination
  - Decisions Destination to support start and step conditions
3. [Configure SAP Work Zone Service for SAP Process Automation](#)

## Configure Process Automation Destination

A destination is required in the Business Technology Platform subaccount where SAP Build Process Automation is subscribed.

- Create a destination with the name “sap\_process\_automation\_service” with the following configuration if it doesn’t exist already.

Please refer to [create a HTTP destination](#) OAuth 2.0 Authentication (client credentials).

<b>Name</b>	sap_process_automation_service
<b>Type</b>	HTTP
<b>Proxy Type</b>	Internet
<b>Authentication</b>	OAuth2ClientCredentials
<b>URL</b>	<"endpoints"."api">
<b>Client ID</b>	<"uaa":"clientis">
<b>Client Secret</b>	<"uaa":"clientsecret">
<b>Token Service URL</b>	<"uaa":"url"/>/oauth/token

## Configure OAuth2ClientCredentials 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](#):

Destination Configuration Blank Template Service Instance

Service Instance: \*

Name: \*

Description:

Additional Properties New Property

Destination Configuration

Name: \*

Type:

Description:

URL: \*

Proxy Type:

Authentication:

Use mTLS for token retrieval

Client ID: \*

Client Secret:

Token Service URL Type: \*

Token Service URL: \*

Token Service User:

Token Service Password:

Additional Properties

endpoints	{ "api": "https://..." }	<input type="button" value="Delete"/>
html5-apps-...	{ "app_host_id": "..." }	<input type="button" value="Delete"/>
saasregistry...	true	<input type="button" value="Delete"/>
sap.cloud.s...	com.sap.spa.process...	<input type="button" value="Delete"/>
sap.cloud.s...	spa	<input type="button" value="Delete"/>

Use default JDK truststore

## Configure Email Destination

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

## Configure SAP Integration Suite Destination

- To call an integration flow, a HTTP destination is required in the SAP Business Technology Platform Create a destination called CPI with either Basic Authentication or OAuth2ClientCredentials.

### 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 integration suite.

WebIDEnabled	true
WebIDESystem	CPI
WebIDEUsage	odata_gen

## Configure SAP S/4HANA Destination

Configure a S/4 HANA destination to connect with SAP S/4HANA on-premise .

Name	S4HANA
Type	HTTP
Proxy Type	On-Premise
User	<ONPREMISE_USER>
Password	<ONPREMISE_PASSWORD>
Authentication	BasicAuthentication
URL	<OData base URL of SAP S/4HANA>
Additional Properties	sap-client: <client number>

## Configure RFC Destination

Configure the RFC destination to connect with SAP S/4HANA on-premise. Below is a destination configuration for SAP S/4HANA on-premise.

**Note:** This destination is required by Cloud Platform Integration.

Name	<RFC_DESTINATION_NAME>
Type	RFC
Proxy Type	OnPremise
User	<ONPREMISE_USER>
Password	<ONPREMISE_PASSWORD>
Repository User	<ONPREMISE_USER>
Repository Password	<ONPREMISE_PASSWORD>
Additional Properties	jco.client.ashost: <host>
Additional Properties	jco.client.client:<client number>
Additional Properties	jco.client.lang: <language>
Additional Properties	jco.client.sysnr:<system number >

## Setup Content Package

### Import and deploy Integration Suite content

This workflow content requires the Integration Suite to process the – Joint Venture Cash Call Approval Process in SAP S/4HANA. The integration content package SAP Build Process Automation Integration with SAP S/4HANA for Joint Venture Cash Call Approval Process is available in SAP API Business hub to integrate SAP Build Process Automation with SAP S/4HANA. Integration models use RFC and OData to integrate with SAP S/4HANA. The following integration model are available in this package.

#### 1. Update Cash Call

Import the integration package to your SAP Integration Suite tenant. To be able to import and deploy integration flows, you need the role AuthGroup. IntegrationDeveloper (in Neo environment) or PI\_Integration\_Developer (in cloud foundry environment) assigned in your tenant.

Further details can be found in the dedicated integration guide of the integration package “[SAP Process Automation Integration with SAP S/4HANA for Joint Venture Cash Call](#)”.

Import pre-packaged Integration content in SAP Integration Suite:

- Access your SAP Integration Suite tenant management node (<https://<integrationtenant>/it spaces>).
- View all pre-packaged integration flow under Discover->Integration. (<https://<integrationtenant>/itspaces/shell/discover>)
- Search content package “[SAP Build Process Automation Integration with SAP S/4HANA for Joint Venture Cash Call Approval Process](#)”.
- Click on the package “**SAP Build Process Automation Integration with SAP S/4HANA for Joint**

### Venture Cash Call Approval Process”.

- Click Copy to import the Integration content package to your workspace.
- Navigate to the *Monitor* view (<https://<integrationtenant>/its/spaces/shell/monitoring>) to setup the security materials required for the package.
- Deploy the following credentials using the Security Material app. Detailed information on the credentials is available on the integration guide.

In Integration Suite, open Operations view, then click on Security Material to create and deploy security materials.

- **S4HANA** – (User Credentials) To call the OData APIs.
- **WF\_CREDENTIAL** – (OAuth2 Client Credentials) To start the approval workflows in SAP Build Process Automation ([help documentation to determine the service configuration parameters](#))

**Note:** The credential names can be different from what is mentioned above. Make sure that you configure the appropriate credential names in the integration flow’s OData/HTTP adapter configuration.

## Import SAP Build Process Automation content

In the [SAP Build Process Automation Store](#), search for live process package Joint Venture Cash Call Approval Process and import the same. Please go to Configuration Guide for further process.

## Import and deploy SAP UI5 Application content

Following steps can be followed to utilize the SAP UI5 application provided with this process package:

- Download the SAPUI5 application file from the imported store project, it will available under the file section in the package.
- Open Business Application Studio and import the previously downloaded SAPUI5 project.
- Ensure that you have already created the SAP Build Process Automation instance and the same instance details need to be updated in the mta.yaml file available in the SAP UI5 application project.



```
83 package-lock.json
84 package.json
85 StartUI-content.zip
86 ui5.yaml
87 xs-app.json
88 mta.yaml
89 xs-security.json
90 README.md
```

```
service-plan: application
service: xsuaa
type: org.cloudfoundry.managed-service
- name: Destination
type: org.cloudfoundry.existing-service
- name: SBPA-instance
type: org.cloudfoundry.existing-service
```

- Update your process definition id (Package needs to be deployed) in the i18n.properties file (property: DEFINITION\_ID) as shown in the following snippets (definition id only needs to be updated in start UI application).
- Build SAPUI5 project using mta.yaml file & the generated project (generated mtar file will be available in the mta\_archives folder) file can be deployed.
- In case of Start UI, after successful deployment of the project, it can be accessed using through SAP standard work zone & user can provide the required journal entry details & submit the form for the journal entry approval & posting. Please refer to the configuration guide for more details.

### Note:

Destination names need to be updated in xs-app.json that was previous configured in “Configure SAP S/4HANA Destination” section.

# Deploy Custom ABAP Objects

## Creating Function Group

### Steps:

1. Go to t-code "SE37"
2. In Menu, select Goto -> Function Groups -> Create Group
3. Enter Function Group name as "ZWF\_FG\_JVCASHCALL" and enter a meaningful Short Text (Select the required package name to save this object)
4. Go to t-code "SE80"
5. Select "Function Group" from dropdown
6. Enter "ZWF\_FG\_JVCASHCALL" as the name of function group and click on Display button
7. Right click on "Includes" folder and select "Create" option
8. Enter "ZWF\_FG\_JVCASHCALL\_FORMS" as the name of Include. (Select the required package and click on ok in the successive dialog boxes)
9. Copy pastes the attached code for "ZWF\_FG\_JVCASHCALL\_FORMS" inside the code editor from SAP note 3119868.
10. Click on "Save"
11. On the left side panel, expand "Includes" folder and double click on "LZWF\_FG\_JVCASHCALL TOP"
12. Go to edit mode and paste the attached code for "LZWF\_FG\_JVCASHCALL TOP" inside the code editor from SAP note 3119868
13. Click on Save
14. Right click on the Function Group "ZWF\_FG\_JVCASHCALL" on the left side panel and "Click on "Activate" (Click OK button on the pop-up which shows list of inactive objects)

## Creating Function Modules

### Steps:

15. Go to t-code "SE37"
16. Click on "Create" button
17. Enter "ZWF\_FM\_JVCASHCALL" as name of Function Module
18. Enter "ZWF\_FG\_JVCASHCALL" as Function Group
19. Enter a meaningful short text
20. Click on "Save" (Click on OK in successive pop-ups)
21. Go to "Import" tab and enter the below mentioned entries

Parameter Name	Typing	Associated Type	Default value	Opti...	Pass...	Short text
COMPANY	TYPE	T8J_F-BUKRS		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Company Code
EFF_DATE	TYPE	BSID-BLDAT		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Document Date in Document
POSTDATE	TYPE	BKPF-BUDAT		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Posting Date in the Document
PERIOD	TYPE	BKPF-MONAT		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Fiscal period
BAT_NUM	TYPE	T8J4B-BATCH		<input type="checkbox"/>	<input checked="" type="checkbox"/>	JV Cash Call Batch Number
GR_FLG	TYPE	CHAR1	'X'	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Post Gross Documents
DEL_FLG	TYPE	CHAR1	'X'	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Delete Batch after posting
				<input type="checkbox"/>	<input type="checkbox"/>	

22. Go to "Export" tab and create the below entries

Parameter Name	Typing	Associated Type	Pass by Val...	Short text
ET_MESSAGE	TYPE	BAPI_MSG	<input checked="" type="checkbox"/>	Message Text
			<input type="checkbox"/>	
			<input type="checkbox"/>	

23. Go to “Tables” tab and create the below entrie

Parameter Name	Typing	Associated Type	Optional	Short text
ET_TRAN	LIKE	SAPUGJC1_TRAN_ALV	<input type="checkbox"/>	Transaction Details
IT_T8J4B	TYPE	ZTTY_T8J4B	<input type="checkbox"/>	T8J4B along with Approval Status
			<input type="checkbox"/>	
			<input type="checkbox"/>	

24. Go to “Source Code” tab and paste the attached code for “ZWF\_FM\_JVCASHCALL” from [SAP note 3119868](#)

25. Go to “Attributes” tab and select radio button for “Remote-Enabled”

26. Click on “Save”

27. Click on “Activate” (Click OK button on the pop-up which shows list of inactive objects)

**Note:** The details of required “Associated Type” (Table Type) used in the Tables tab are mentioned below:

Create the Line type ZLTY\_T8J4B

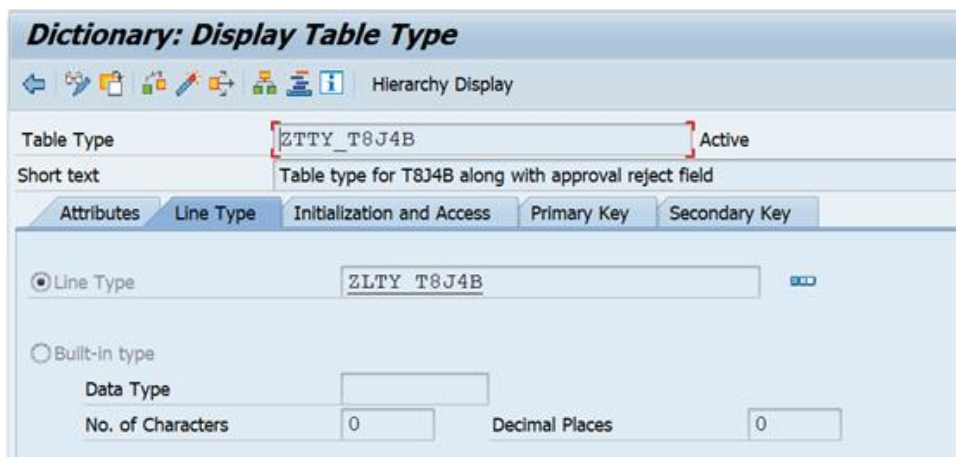
**Dictionary: Display Structure**

Structure: ZLTY\_T8J4B Active

Short Description: Structure for T8J4B along with approve or reject check box

Component	Typing Method	Component Type	Data Type	Length	Decimal...	Coordinate	Short Description
BUKRS	Typea	BUKRS	CHAR	4	0		Company Code
BATCH	Typea	JV_BATCHN	CHAR	10	0		JV Cash Call Batch Number
JVFUNC	Typea	JV_FUNC	CHAR	4	0		JV Function
PARTH	Typea	JV_PART	CHAR	10	0		Partner account number
VNAME	Typea	JV_NAME	CHAR	6	0		Joint venture
EGRUP	Typea	JV_EGROUP	CHAR	3	0		Equity group
FCURB	Typea	JV_FUNDCUR	CUKY	5	0		Funding currency
POS_POM	Typea	JV_CCPOM	CHAR	6	0		Proc. operational month for Cash Call Transaction(online)
STATUS	Typea	/ACCGO/E_CS_SEQ	CHAR	1	0		Status

Create the Tabc type ZTTY\_T8J4B referring to the above line type.



### Implicit Enhancements

The details of implicit enhancements that need to be implemented in SAP S/4HANA are mentioned below:

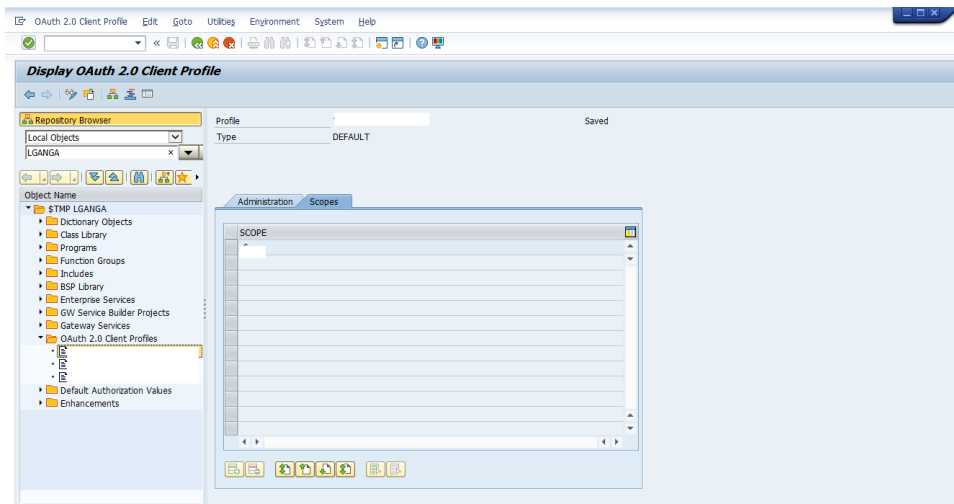
Program Name	Position	Type	Code
MGJC1F10	To be added at the end of FORM "UPDATE_BATCH_TABLE"	Code	Copy-Paste the code Enhancement1.txt from <a href="#">SAP note 3119868</a>
MGJC1F10	To be added at the beginning of FORM "UPDATE_BATCH_TABLE"	Code	Copy-Paste the code Enhancement2.txt from <a href="#">SAP note 3119868</a>

### Note:

1. The exporting parameter "url" of method "cl\_http\_client=>create\_by\_url" in "Enhancement 1" needs to be changed as per the Workflow Management API URL applicable for your SAP Business Technology Platform Tenant.
2. The above-mentioned enhancement code requires OAuth2.0 client and profile to be created in SAP S/4 HANA. The steps for this configuration are mentioned below:

### Creating OAuth2.0 client profile:

1. Start the object navigator (transaction SE80). Choose Development Object in the dropdown list.
2. To create a development object in the SAP namespace, choose Create OAuth 2.0 Client Profile in the context menu of the object name.
3. Enter the object name in the Client Profile field of the popup as 'ZOAUTH\_CLIENT\_PROFILE'.
4. choose the type of service provider as 'DEFAULT'
5. Also provide the scope as configured in the service provider configuration and activate the client profile.



## Configure the OAuth2.0 Client

1. Go to transaction OA2C\_CONFIG to configure the OAuth2.0
2. Click on 'Create'.
3. Select the OAuth2.0 Client Profile as 'ZOAUTH\_CLIENT\_PROFILE' and provide the Client ID.
4. Maintain the Client Secret
5. Also provide the Token Endpoint.
6. Enter the Client Authentication as 'Basic', Resource Access Authentication as 'Header Field' and select grant type as 'Client Credentials'.
7. Click on save. The OAuth2.0 configuration name is 'ZOAUTH\_CLIENT\_PROFILE'

Administration   Scopes   Enhancement Settings

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Created By   Created On 12/14/2020   Created At 11:52:27 AM   Changed By   Changed On 12/14/2020   Changed At 11:52:27 AM

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**General Settings**

Service Provider Type: DEFAULT

Profile: .

Configuration Name:

OAuth 2.0 Client ID:

OAuth 2.0 Client ID (Internal):

Client Secret: ●●●●●●●●

**Authorization Server Settings**

Authorization Endpoint: https://

Token Endpoint: https://

Revocation Endpoint: https://

**Access Settings**

Now the OAuth2.0 configuration is completed.