

Coupa Integration with SAP Signavio Process Intelligence Configuration Guide

For SAP Integration Suite

Version 1.0.0

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1 Prepackaged Content Introduction

1.1 Introduction

This document provides an overview of the artifacts delivered as part of the Coupa Integration with SAP Signavio Process Intelligence Configuration Guide. The document discusses the common configuration steps needed before deploying the Integration Flows within the package. Read this guide carefully before configuring the integration content.

1.2 Coding Samples

Any software coding and/or code lines/strings ("Code") included in this documentation are only examples and are not intended to be used in a productive system environment. The Code is only intended to better explain and visualize the syntax and phrasing rules of certain coding. We do not warrant the correctness and completeness of the Code given herein.

1.3 Internet Hyperlinks

The documentation may contain hyperlinks to the Internet. These hyperlinks are intended to serve as a hint about where to find related information. We do not warrant the availability and the correctness of this related information or the ability of this information to serve a particular purpose.

1.4 Overview

This Integration Package is designed to facilitate and streamline the replication of Coupa Resources with SAP Signavio Process Intelligence, ensuring seamless data synchronization between the two platforms. The package offers robust support for replicating key resources from Coupa to SAP Signavio Process Intelligence, enabling businesses to manage and analyze their data efficiently.

You can customize this process as per business requirements by making adjustments for different components, including adjustments to:

- Integration flow externalized parameters,
- SAP Signavio Process Intelligence setup,
- Value Mappings to modify objects, and fields as per requirement.



If you make modifications to the original integration flows in this package, subsequent developer updates to the package might not reflect as intended. Therefore, consider this while altering any content.

2 Preparing the Systems for Integration

2.1 Prerequisites

To configure the integration content using this guide, you need to have access and authorizations to the systems listed below.

2.2 Access Requirements

- Coupa Tenant Details
- SAP Integration Suite Tenant Details.
- SAP Signavio Process Intelligence Tenant Details

2.3 Authorization Requirements

- Coupa Details
- SAP Integration Suite Tenant Details.
 - AuthGroup.IntegrationDeveloper
- SAP Signavio Process Intelligence Tenant
 - Appropriate authorizations to connect to the SAP Signavio Process Intelligence Tenant.

2.4 Adapter Installation

Installing the Coupa adapter for the SAP Integration Suite is a prerequisite to using this Integration Package.

For more information about the Coupa Adapter, refer to this link [Coupa Adapter for SAP Integration Suite](#).

For information about Adapter installation, see [Consuming Integration Adapters from SAP Business Accelerator Hub](#).

3 Coupa to SAP Signavio Process Intelligence Content Configuration

Coupa, SAP Signavio Process Intelligence, and SAP Integration Suite need to be configured and prepared before the integration content package can be configured and deployed.

3.1 Configuration in Coupa

Before using Coupa, several parameters need to be configured for your Coupa Receiver Adapter.

You need to configure the **Connection** and **Processing** tabs.

For more information, see [Coupa Adapter for SAP Integration Suite](#).

3.2 Configuration in SAP Signavio Process Intelligence

You are required to ensure activation of Ingestion API in SAP Signavio Process Intelligence. Activating the Ingestion API by creating a connection to SAP Integration Suite allows data transfer from an integration flow in SAP Integration Suite to SAP Signavio Process Intelligence for potential Process Mining activities.

For more information, see [API activation in SAP Signavio Process Intelligence](#).

3.3 Value Mapping Configurations

As part of the integration content package, you are provided the following pre-configured Value Mappings:

3.3.1 Coupa to SAP Signavio Process Intelligence Resource Input Table

A list of resources to be extracted from Coupa.



You can add new Resource names, however for execution ensure you make the required modifications in the relevant integration flows.

The Resources present in the package include:

Coupa, ResourceName
requisitions
requisition_lines
approvals
purchase_orders
purchase_order_lines
receiving_transactions
receiving_transaction_lines
invoices
Invoice_lines
Users
items

Below are the tables in Coupa corresponding to Signavio target tables.

Coupa	Signavio
requisitions	PurchaseRequisition
requisition_lines	PurchaseRequisitionLineItem
approvals	PurchaseRequisitionApproval
purchase_orders	PurchaseOrder
purchase_order_lines	PurchaseOrderLineItem
receiving_transactions	GoodsReceipt
receiving_transaction_lines	GoodsReceiptLineItem
invoices	Invoice
invoice_lines	InvoiceLineItem
users	User
items	Material

3.3.2 Coupa to SAP Signavio Process Intelligence Tables - Fieldname Datatype Value Mapping

This table contains a resource-wise list of field names and data type mappings for the data to be populated in the SAP Signavio Process Intelligence target table.

Example: Fieldnames and Datatypes for Signavio_User table in SAP Signavio Process Intelligence

Signavio_User, FieldName	Signavio_User, Datatype
UserId	string
Type	string
CreatedDate	long
LastModifiedDate	long



You must configure this list to add additional fields if required. For execution ensure you make the modifications needed in the relevant mappings.

3.3.3 Coupa to SAP Signavio Process Intelligence - Resource Start Date Value Mapping

This mapping table contains the execution StartDate for each resource in the Resource Input Table.

Example: StartDate for the approvals resource.

Coupa, ResourceName	Signavio, StartDate
Approvals	2024-08-20T00:00:00Z

3.4 Configuration in SAP Integration Suite

This section discusses Integration flow settings, prerequisites, parameters of the Sender and Receiver systems, and other details specific to each integration flow.

To work with the integration flows of this package, copy the prepackaged integration flow scenario to your workspace. Then configure the integration flows. Finally, to activate the integration flows, deploy them.

3.4.1 Configuration in SAP Business Technology Platform (SAP BTP) Connectivity

You need to configure the inbound communication required to set up the connection between a remote sender system and the SAP Integration Suite.

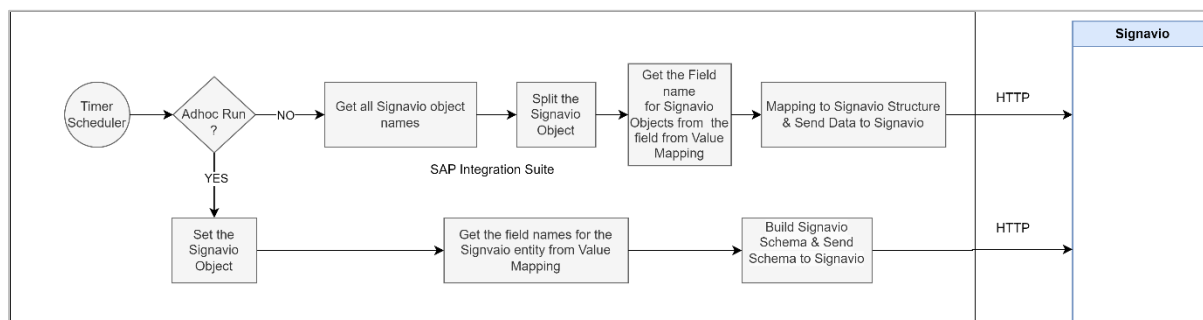
For more information, see [Creating Service Instance and Service Key for Inbound Authentication | SAP Help Portal](#).

3.4.2 Configuring Integration flows: Coupa Integration with SAP Signavio Process Intelligence

This section contains configuration details for integration flows under Coupa Integration with SAP Signavio Package.

3.4.2.1 Coupa to SAP Signavio Process Intelligence - Create Tables

This integration flow is a one-time preparatory step before the actual resource replication. A high-level flow is given below.



This is to create target tables for the resources that are replicated from Coupa to SAP Signavio Process Intelligence.

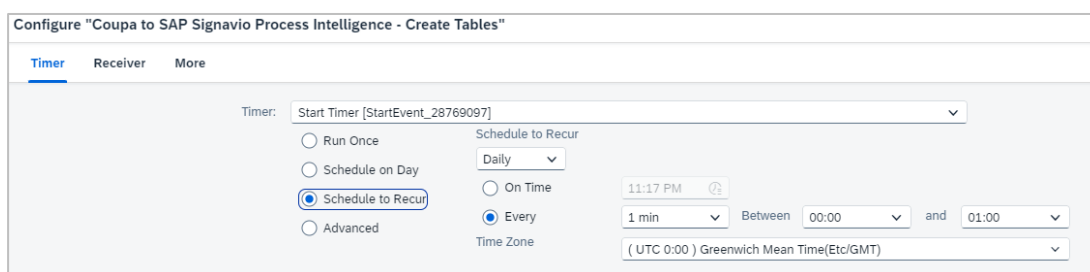
i It is recommended to allow at least 15 minutes for this integration flow to execute before the resource replication integration flow is triggered.

Purpose

To review the configuration parameters of the integration flow - **Coupa to SAP Signavio Process Intelligence - Create Tables**


Procedure

1. Open **Coupa to SAP Signavio Process Intelligence - Create Tables** integration flow and click on configure.
2. Click on the **Timer** tab to review (or modify if needed) scheduling parameters.



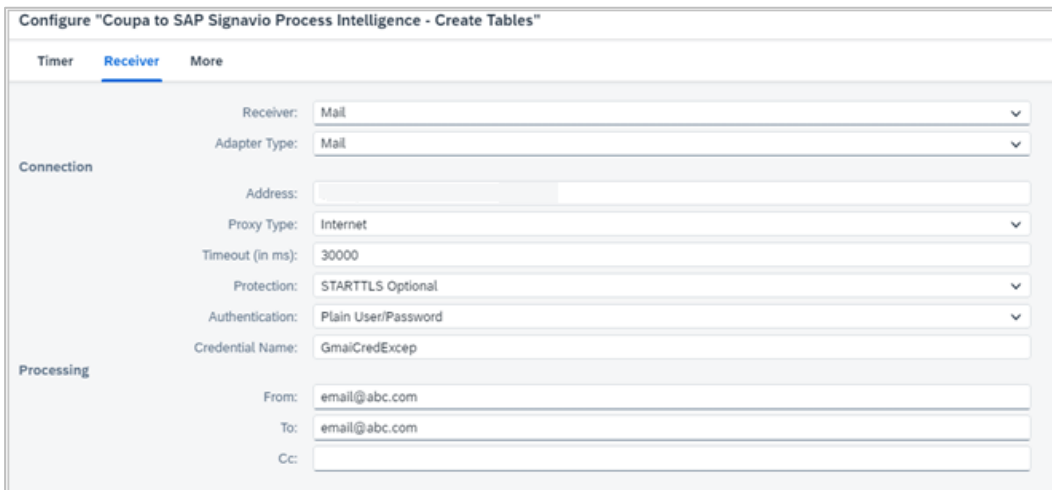
- **Run Once:** The integration flow will be executed only once and can be used for the initial load.
- **Schedule on Day:** integration flow will be executed on a specific date/time.

- **Schedule on Recur:** The integration flow will be executed at a regular interval and will replicate the changes from the source system to the target system (suggested mode).

 By default, the integration flow has been configured to **Run Once**.

For more information about Scheduling, see [Configuring Timer](#).

3. Click on the **Receiver** tab to review (or modify if needed) connection parameters. For parameter-specific descriptions, see [Parameter Descriptions](#).



Configure "Coupa to SAP Signavio Process Intelligence - Create Tables"

Timer **Receiver** More

Connection

Receiver: Mail

Adapter Type: Mail

Address:

Proxy Type: Internet

Timeout (in ms): 30000

Protection: STARTTLS Optional

Authentication: Plain User/Password

Credential Name: GmailCredExcep

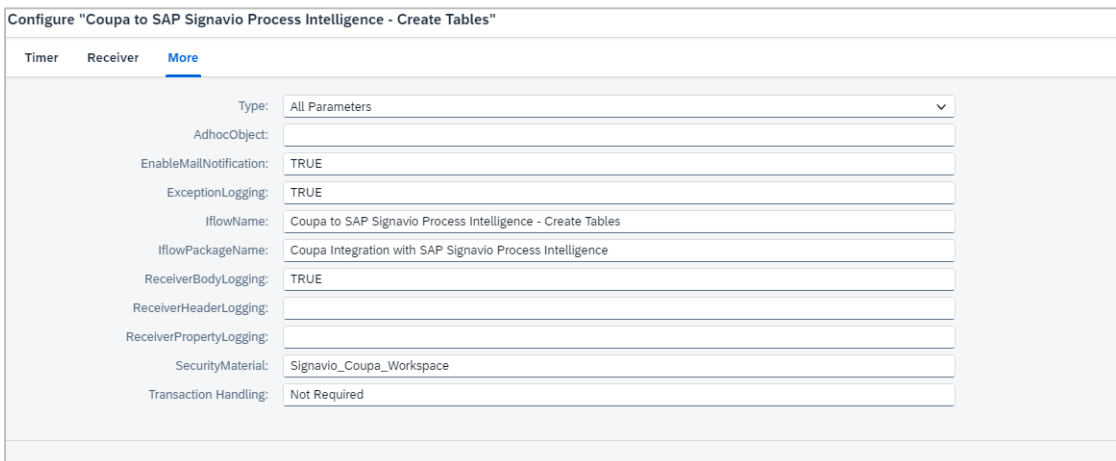
Processing

From: email@abc.com

To: email@abc.com

Cc:

4. Switch to the **More** tab to view execution options for creating objects in SAP Signavio Process Intelligence. For parameter-specific descriptions, see [Parameter Descriptions](#).



Configure "Coupa to SAP Signavio Process Intelligence - Create Tables"

Timer Receiver **More**

Type: All Parameters

AdhocObject:

EnableMailNotification: TRUE

ExceptionLogging: TRUE

IflowName: Coupa to SAP Signavio Process Intelligence - Create Tables

IflowPackageName: Coupa Integration with SAP Signavio Process Intelligence

ReceiverBodyLogging: TRUE

ReceiverHeaderLogging:

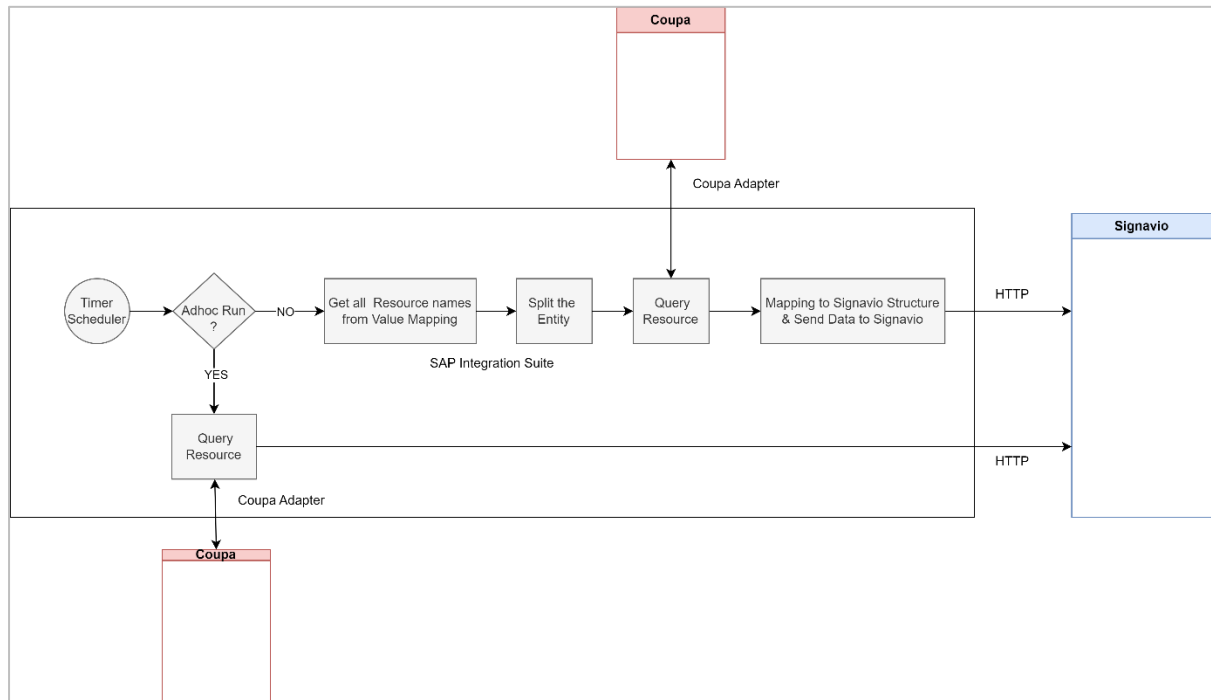
ReceiverPropertyLogging:

SecurityMaterial: Signavio_Coupa_Workspace

Transaction Handling: Not Required

3.4.2.2 Coupa to SAP Signavio Process Intelligence Resource Replication

This integration flow replicates resources from Coupa to SAP Signavio Process Intelligence. A high-level overview is provided below.



Purpose

To review the configuration parameters of the integration flow - **Coupa to SAP Signavio Process Intelligence Resource Replication**.

Procedure

1. Open **Coupa to SAP Signavio Process Intelligence Resource Replication** integration flow and click on **Configure**.
2. Click on the **Timer** tab to review (or modify if needed) scheduling parameters.

The screenshot shows the configuration interface for the integration flow. The title is 'Configure "Coupa to SAP Signavio Process Intelligence Resource Replication"'. There are three tabs: 'Timer', 'Receiver', and 'More'. The 'Timer' tab is selected. The 'Timer' dropdown is set to 'Set Schedule [StartEvent_28769097]'. There are three radio buttons for scheduling: 'Run Once', 'Schedule on Day', and 'Schedule to Recur'. The 'Schedule to Recur' radio button is selected. There are three radio buttons for the recurrence type: 'Daily', 'On Time', and 'Every'. The 'Every' radio button is selected. The 'On Time' option is set to '11:25 PM'. The 'Every' option is set to '1 min' and 'Between 00:00 and 01:00'. The 'Time Zone' is set to '(UTC 0:00) Greenwich Mean Time(Etc/GMT)'. There are also 'Schedule to Recur' and 'On Time' options.

- **Run Once:** The integration flow will be executed only once and can be used for the initial load.
- **Schedule on Day:** integration flow will be executed on a specific date/time.
- **Schedule on Recur:** The integration flow will be executed at a regular interval and will replicate the changes from the source system to the target system (suggested mode).



You can modify the **Timer** configurations based on your scenario and landscape.

For more information about Scheduling, see [Configuring Timer](#).

3. Click on the **Receiver** tab to review (or modify if needed) connection parameters. For parameter-specific descriptions, see [Parameter Descriptions](#).

4. Switch to the **More** tab to view execution options for ingesting entities into SAP Signavio Process Intelligence. For parameter-specific descriptions, see [Parameter Descriptions](#).

Configure "Coupa to SAP Signavio Process Intelligence Resource Replication"

Timer Receiver **More**

Type: All Parameters

AdhocEntity: requisitions

Adhoc_StartDate: 2022-01-01T11:18:09

CC_ErrorAlert:

EnableMailNotification: TRUE

ExceptionLogging: TRUE

ExecuteFullLoad:

IflowName: Coupa to SAP Signavio Process Intelligence Resource Replication

IflowPackageName: Coupa Integration with SAP Signavio Process Intelligence

LogSummaryReport: TRUE

ReceiverBodyLogging: TRUE

ReceiverHeaderLogging:

ReceiverPropertyLogging:

SecurityMaterial: Signavio_Coupa_Workspace

SourceBodyLogging: TRUE

SourceHeaderLogging:

SourcePropertyLogging:

TO_ErrorAlert: email@abc.com

Transaction Handling: Not Required

UpdateLastRunVariable: TRUE

3.4.2.3 Parameter Descriptions

- For parameters related to resource loads, you can configure the following parameters:

Field	Description
ExecuteFullLoad	If the value is set to TRUE, a full load synchronization will be executed. Acceptable values: TRUE, FALSE.
Adhoc_LastModifiedDate	Set a date for an adhoc execution. Syntax: YYYY-DD-MMTHH24:MI:SS Example: 2024-24-07T00:00:00:00Z
UpdateLastRunVariable	If the value is set to TRUE, the last run date is saved at the integration flow level. Acceptable values: TRUE, FALSE.
AdhocEntity	Specify a resource for which integration flow needs to be triggered <ul style="list-style-type: none"> Resource creation on and ad-hoc basis Resource replication on and ad-hoc basis <p>Example: requisitions</p> <div style="background-color: #e6f2ff; padding: 5px; border: 1px solid #0070c0; display: flex; align-items: center;"> <p>Only a single resource can be specified at a time.</p> </div>

- For Logging and Email notifications, you can configure the following parameters:

Field	Description
ReceiverBodyLogging	Specify TRUE to log the payload (Not recommended in a live environment). Possible values: TRUE, FALSE. Use FALSE as a default value.
ExceptionLogging	Specify TRUE to log the exception (Not recommended in a live environment). Possible values: TRUE, FALSE. Use FALSE as a default value.
ReceiverHeaderLogging	Specify TRUE to log the message header (Not recommended in a live environment). Possible values: TRUE, FALSE. Use FALSE as a default value.
ReceiverPropertyLogging	Specify TRUE to log the message property (Not recommended in a live environment). Possible values: TRUE, FALSE. Use FALSE as a default value.
SourceHeaderLogging	Specify TRUE to log the source header. Possible values: TRUE, FALSE. Use FALSE as a default value.
SourcePropertyLogging	Specify TRUE to log source property. Possible values: TRUE, FALSE. Use FALSE as a default value.
SourceBodyLogging	Specify TRUE to log the source body. Possible values: TRUE, FALSE. Use FALSE as a default value.
LogSummaryReport	It generates a summary regarding processed entities and execution queries.
EnableMailNotification	In case the value is set to TRUE, the integration flows will send a notification to the email address specified in the To field configured in the mail adapter. The notification is sent in case an exception occurs. Possible values: TRUE, FALSE

- For fields related to integration flow descriptions, you can configure the following parameters:

Field	Description
Iflowname	Specify a description for the integration flow name.
Iflowpackagename	Specify a description of the related integration flow packages.
Security Material	Specify the security artifact representing the user credentials.

- For other important parameters related to SAP Integration Suite configuration, refer to the below fields:

Field	Description
CI Tenant Address	Specify the hostname of your Cloud Integration tenant. Example: <a href="https://<yourhost>.hana.ondemand.com">https://<yourhost>.hana.ondemand.com
Credential Name	Specify the credential created to connect to the Cloud Integration Tenant. You must create this artifact as a security credential.

4 Deploying the Integration Content

After ensuring the integration flows are configured to your requirements, you must deploy all the objects contained in the package. However, the correct order of deployment must be followed to avoid errors.

Purpose

To deploy the contents of **Coupa Integration with SAP Signavio Process Intelligence** integration package.

Procedure

1. Deploy Coupa and SAP Signavio Process Intelligence credentials from **Security Material**.

For more information, see [Appendix](#).

2. Deploy the value mappings listed under [Value Mapping Configurations](#).
3. Deploy integration flow listed under [Coupa to SAP Signavio Process Intelligence - Create Tables](#).
4. Deploy all Integration Flows under the package Coupa Integration with SAP Signavio Process Intelligence.

After the deployment of the above assets, you can now run the integration flows.

5 Running the Content

Purpose

To execute the integration flows in the **Coupa Integration with SAP Signavio Process Intelligence** integration package.

Procedure

1. Run **Coupa to SAP Signavio Process Intelligence - Create Tables** as a one-time step to create tables in SAP Signavio Process Intelligence.
2. Run delta or full loads for specific or all resources by executing **Coupa to SAP Signavio Process Intelligence Resource Replication**. You can execute Delta and Full load by configuring the parameters mentioned below:
 - a. **ExecuteFullLoad** has the highest priority; If set to TRUE, a full load for all resources will be performed. **StartDate** in value mapping and **Adhoc_LastModifiedDate** in the **More** tab will be ignored.



It is recommended to utilize AdhocEntity in conjunction with ExecuteFullLoad for resource-wise loads.

- b. Secondly, **StartDate** in **Coupa to SAP Signavio Process Intelligence - Resource Start Date Value Mapping** determines the execution timings if **ExecuteFullLoad** is empty. This is similar to a delta load.
- c. Finally, **Adhoc_LastModifiedDate** is used for execution, if **StartDate** and **ExecuteFullLoad** parameters are not populated. This is similar to a delta load for an ad-hoc date.




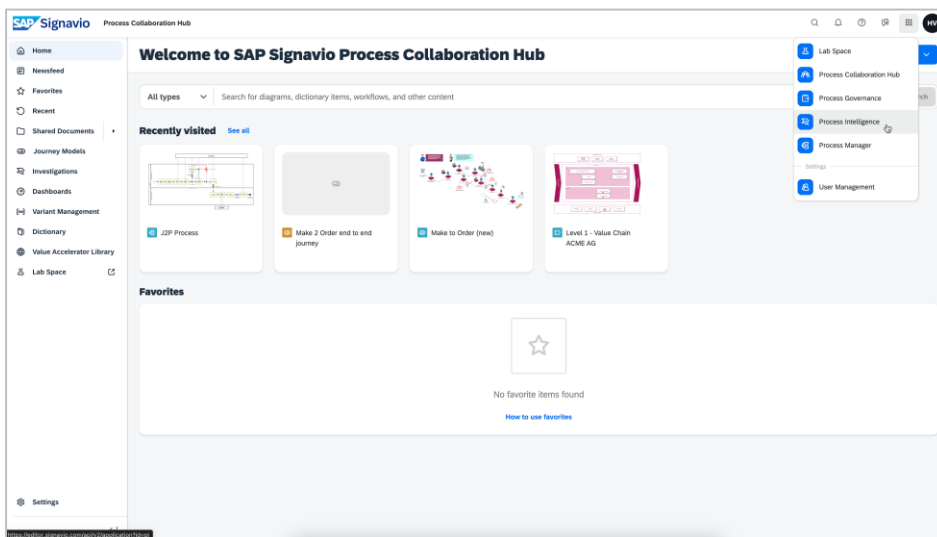
Ensure that you have set **UpdateLastRunVariable** to **FALSE** for your ad-hoc loads to avoid conflict with your scheduled runs.

6 Appendix

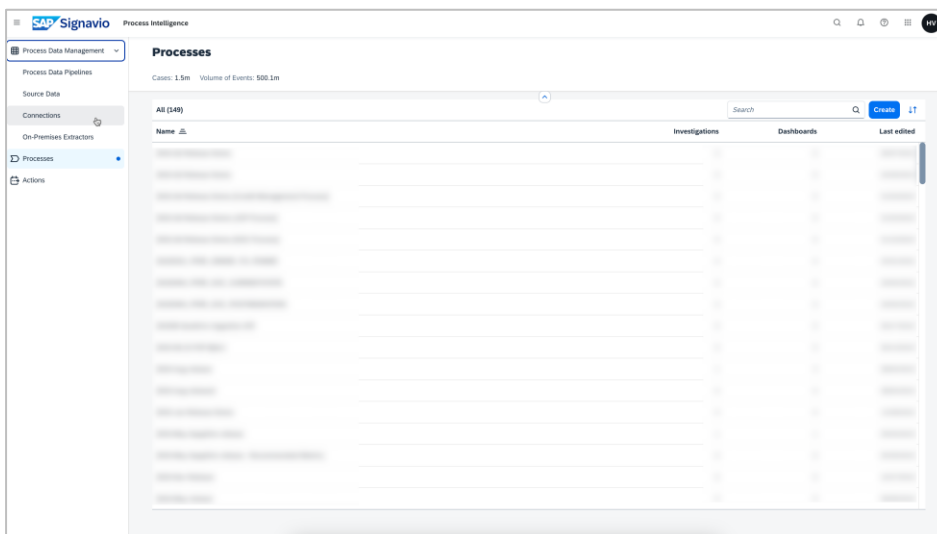
6.1 API activation in SAP Signavio Process Intelligence

Procedure

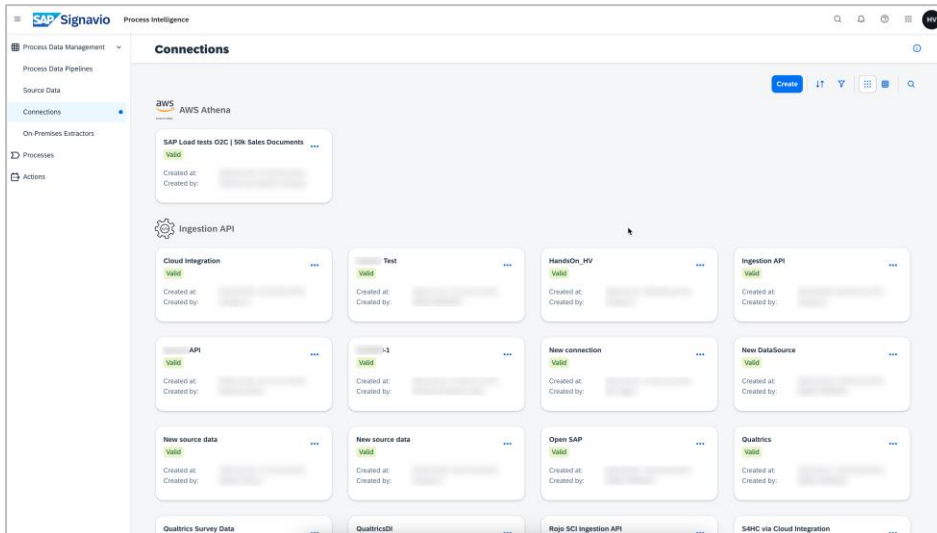
1. On the SAP Signavio Process Intelligence workspace, Click  on the top right and select **Process Intelligence** from the dropdown.



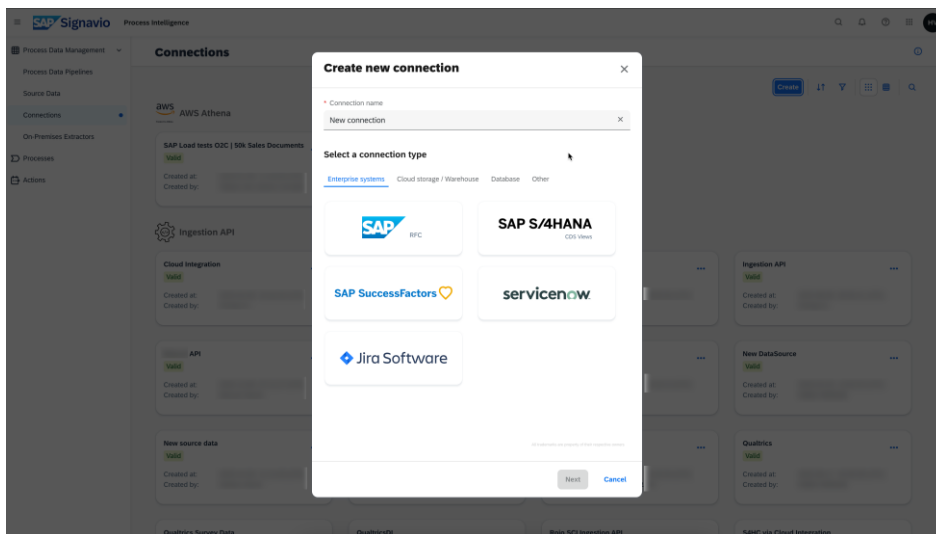
2. Select **Connections** under **Process Data Management** from the left side menu bar.



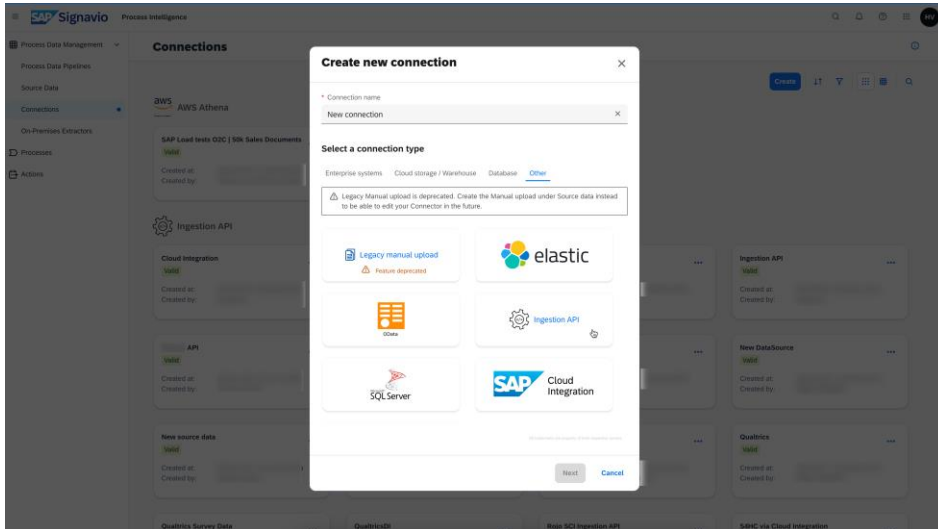
3. Under **Connections**, Click **Create**.



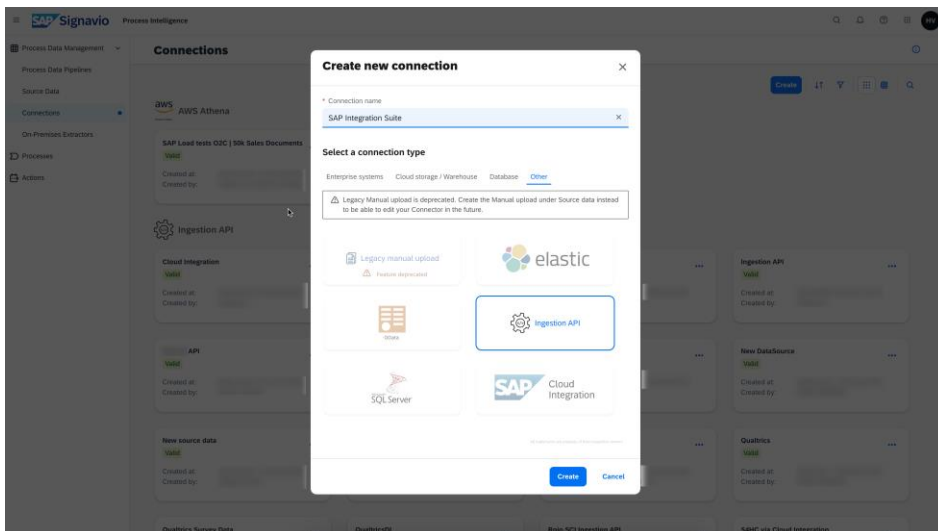
4. A **Create new Connection** window pops up.



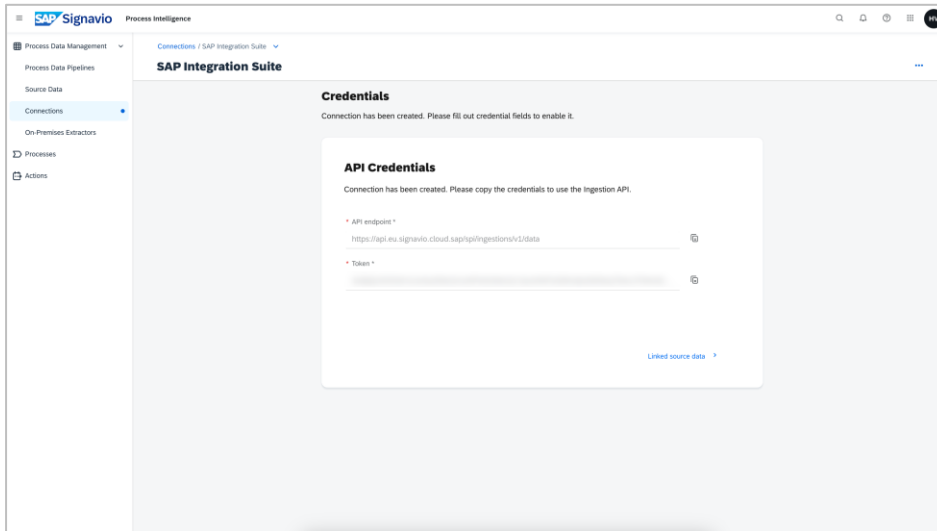
5. Switch to the **Other** and select the **connection** type as **Ingestion API**.



6. Finally, provide a **Connection name** and Click **Create** to finish the process.



7. A confirmation message reads "A new connection has been created".



You can note the following details to be used later:

- The API endpoint for your specific tenant. The URL of the endpoint can vary based on the region your SAP Signavio Process Intelligence workspace is hosted in.
- Ingestion API Token that is required during configuration for SAP Integration Suite. You must add the above token as a **Secure Parameter** in **Security Material**.

For further information on the ingestion API, check out the official SAP Signavio Process Intelligence Ingestion API documentation.

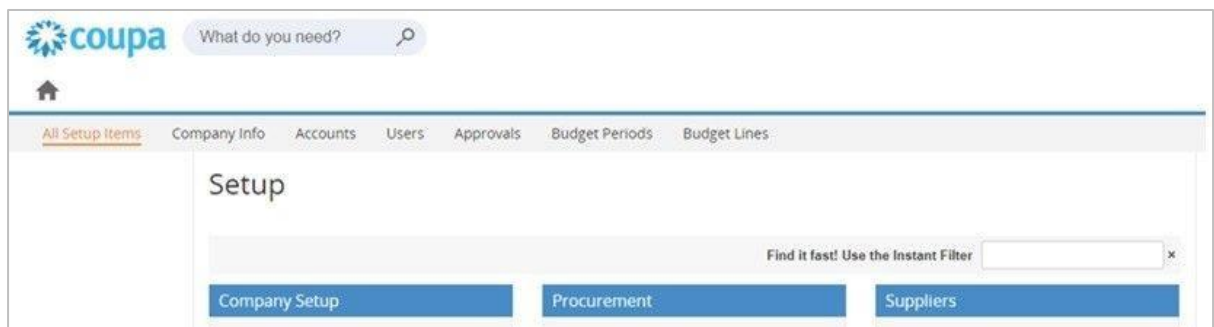
6.2 Initializing OAuth Setup in Coupa and SAP Integration Suite

Purpose

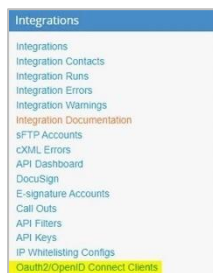
To initialize OAuth setup in Coupa and SAP integration Suite.

Procedure

1. Login to the Coupa Tenant using the Coupa URL for the organization.
2. Click **All Setup Items**.



3. Go to **Integrations > OAuth2/OpenID Connect Clients**.



4. Click **Create**, enter the details as required, select appropriate permissions, and click **Save**.

Create Client

* Grant type

* Name

JWKS URI

List redirect_uris as comma separated (unquoted): http://a.com,

* Login

* Contact First Name

* Contact Last Name

* Contact Email

* Scopes

- core.accounting.read
- core.accounting.write
- core.approval.read
- core.approval.write

- On saving, you can view the below details. Save this information to connect to Coupa externally.

Name Coupa_OauthKey_Doc

Identifier

Grant Type Client credentials

Login Coupa_OauthKey_Doc

Contact Firstname

Contact Lastname

Contact Email

Secret

[Show/Hide](#)

Oidc Scopes core.accounting.read, core.accounting.write, core.budget.read, core.budget.write

Active Yes

The **Oidc Scopes** are the permissions configured in Coupa. You can use these values (separated by a space) in the **Scopes** field of the Coupa adapter while configuring the **Connection** tab.

Furthermore, **Identifier** and **Secret** are required in an upcoming section. For more information, see *Configure OAuth in Eclipse Coupa Plugin* in [Coupa Adapter for SAP Integration Suite](#).

7 References

For more information on connecting and authenticating against the adapters used in this integration content, refer to the following links:

- [Mail Receiver Adapter](#)
- [Coupa Receiver Adapter](#)
- [HTTP Receiver Adapter](#)