



PUBLIC

# Custom Joule Skill & Agent in SAP Build Mass PO Closure Agent

Configuration & User Guide

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This document contains 2 sections. Each section covers different information about this template content package.

1. **Overview:** In this section, you will get quick overview of the use case, what are high-level components used and how the template works in nutshell. Prerequisite section provides information of different services of SAP Business Technology Platform that are required to use this template.
2. **Configuration Guide** It contain sections which will guide you to setup your (a) SAP Business Technology Platform Account with destination, user roles etc., (b) Links and steps to set up Joule studio and Joule (c) Import and configure the template using SAP Build Process Automation - Joule studio

**Note:**

1. This agent and documentation are intended for Business use. The content is designed to support real business scenarios and enterprise integrations.
2. This documentation does not provide a full end-to-end setup guide for all SAP Business Technology Platform services. It assumes that the IT administrator responsible for setting up has prior experience with SAP Business Technology Platform and related services. The configuration steps outlined in this document must be followed as described.
3. This content is provided to accelerate enterprise solution implementation. Customers are expected to adapt and extend the agent, skills, and configurations based on their specific business requirements. Users should have a basic understanding of SAP Build Process Automation and its capabilities to effectively customize and operate the solution.

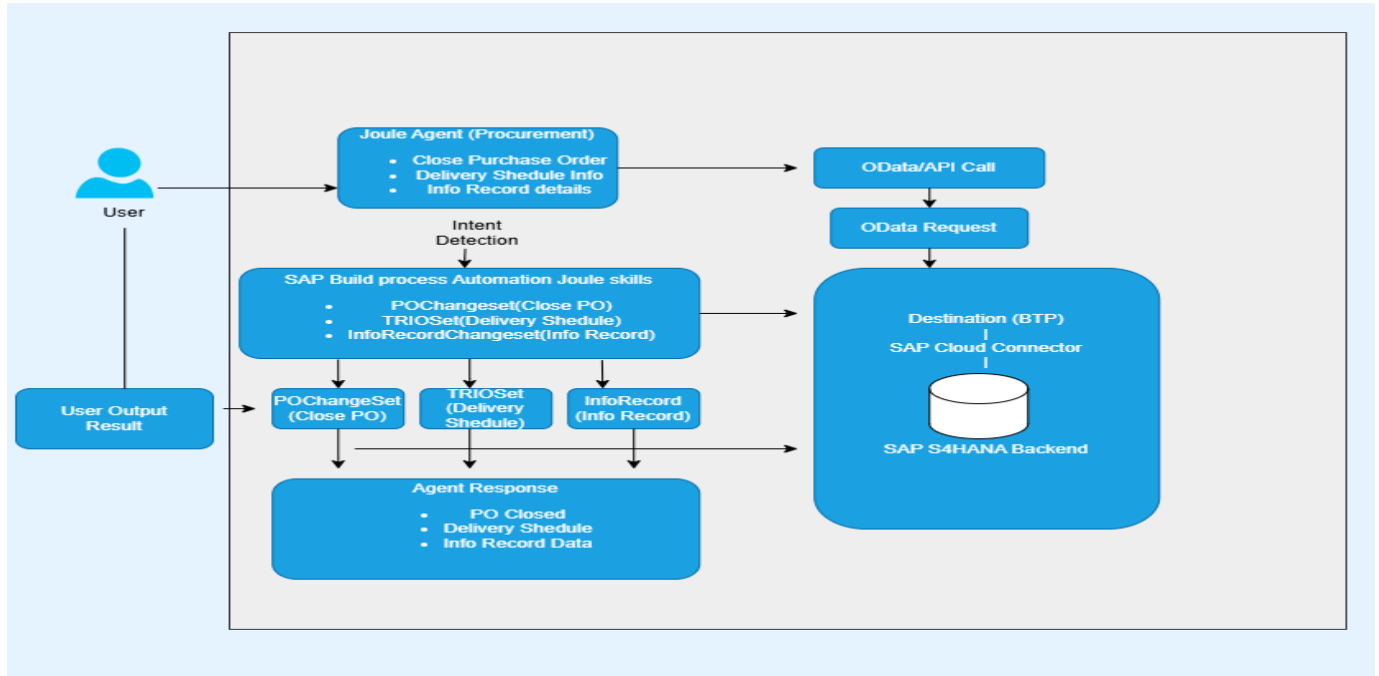
## Overview

The **Mass Purchase Order Closure Agent** is a conversational AI-powered Joule Agent built using SAP Build Joule Studio to assist procurement and operations teams in efficiently managing and closing Purchase Orders (POs) at scale in SAP S/4HANA.

Organizations often face challenges in closing large volumes of open or partially processed purchase orders that are no longer required due to business changes, contract expirations, or completed deliveries. Traditionally, mass PO closure requires manual analysis, transaction-based processing, and repetitive steps across SAP applications, making the process time-consuming, error-prone, and dependent on deep SAP functional knowledge.

The Mass Purchase Order Closure Agent addresses these challenges by providing a single conversational interface through which users can identify, validate, and close purchase orders using natural language. Users can query open purchase orders based on status, supplier, company code, or date range, review closure eligibility, and perform mass PO closure actions in a controlled and auditable manner.

## Solution flow :



1. The user submits a natural language request (e.g., “Show delivery schedule for PO 4500000350” or “Close PO item”).
2. The **Mass PO Closure Joule Agent** interprets the intent.
3. The agent triggers the appropriate **Joule Skill**.
4. The skill invokes SAP S/4HANA OData or API services using the configured **E4H destination**.
5. SAP returns the response, which is displayed to the user in a structured format.

The list is then consolidated by Agent, and all the suppliers are displayed.

## Business Value & Benefits

- Eliminates manual PO closure activities
- Reduce errors in procurement operations
- Improve procurement KPIs and reporting accuracy
- Accelerate mass PO maintenance through natural language interaction
- Enhances user productivity by removing dependency on SAP transaction knowledge

## Prerequisites



For this template to run successfully the following prerequisites are needed.

- Joule Studio in SAP Build

Follow the setup guide [here](#) based on your tenant configuration.

NOTE: If you need additional help with these prerequisites (such as setting up SAP Build Process Automation and SAP Build Work Zone), you can run the Discovery Center mission: [Setup Joule Studio for a BTP Enterprise Account](#).

- SAP S/4HANA system (On-Premise) accessible from SAP BTP
- SAP S/4HANA Purchasing & related OData/API services active and reachable
- SAP Build with Joule Studio Enabled
- SAP Business Technology Platform (BTP) account with destination configuration permissions
- SAP Cloud Connector configured for on-premise connectivity
- Required user roles/authorizations for Purchase Orders and Info Records in SAP S/4HANA

## Configuration Guide

### Setup Business Technology Platform Cockpit

#### Configure SAP S/4HANA Destination

The Mass PO Closure Agent connects to the backend SAP S/4HANA system using the following destination.

| Destination Property | Value  |
|----------------------|--|
| Name                 | <Destination Name>   |
| Type                 | HTTP   |
| URL                  | http://{host}:{port}/sap/opu/odata/SAP/ZVP_PCK_ABAP_DUMP_SRV |
| Proxy Type           | OnPremise  |
| Authentication       | BasicAuthentication  |
| Username             | <Username>   |
| password             | <Password>   |

NOTE: All destination values shown above are placeholders. Actual system-specific values must be maintained in the SAP BTP cockpit.

### Additional properties Table:

| Additional propertie                       | Value     |
|--|-----------|
| sap-client                                 | 100       |
| HTML5.Timeout                              | 6000      |
| WebIDESystem                               | E4H       |
| sap.applicationdevelopment.actions.enabled | true      |
| sap.build.usage                            | odata_gen |
| sap.processautomation.enabled              | true      |
| abap_enabled                               | true      |
| HTML5.DynamicDestination                   | true      |

NOTE: Make sure the API used in this template (see the below sections to get the API name) is exposed with the correct communication scenario to the communication user.

Communication scenario: Business Partner, Customer and Supplier Integration (SAP\_COM\_0008)

### SAP Cloud Connector Details

Cloud Connector Required: Yes

Reason: The backend is on-premise, and the destination uses Proxy Type "on Premise".

Therefore, SAP Cloud Connector with the specified Location ID is required

### User Roles Configuration

To access and use the Mass Po closure Agent, the users need to have the roles as describe [here](#).

### Services used:

There are One Action projects used in this Agent. They use different APIs/Services.

| Action Project Name        | Service Used | Purpose                                |
|----------------------------|--------------|--|
| PO Delivery Schedule Skill | /TRIOSet     | Retrieve delivery schedule information |

|                               |                      |                                  |
|-------------------------------|----------------------|----------------------------------|
| PO Close & Finalization Skill | /POChangeSet         | Update PO items for mass closure |
| Purchasing Info Record Skill  | /InfoRecordChangeSet | Retrieve info record data        |

## Artifacts in the Agent:

| Type        | Name                          | Description                              |
|-------------|-------------------------------|--|
| Joule Skill | PO Delivery Schedule Skill    | Retrieves PO delivery schedule details   |
| Joule Skill | PO Close & Finalization Skill | Performs mass PO closure updates         |
| Joule Skill | Purchasing Info Record Skill  | Retrieves purchasing info record details |
| Joule Agent | Mass PO Closure Agent         | Operations using natural language        |

## Setup Content Package

### Import Custom Joule Agent

All imported custom agents are available in SAP Build Store. To know more about the SAP Build Store visit [SAP Build Process Automation Store](#).

This template can be downloaded from the SAP Build Store:

1. Navigate to the **Store** option in your SAP Build Lobby.
2. Select the **Project Type** filter as “Joule Agent and Skill”
3. In the Search bar type **“Mass Po closure Agent”**
4. Select the “Create from Template” button to add the template into your lobby.
5. Once the creation is complete, navigate to the Lobby to find the **“Mass po closure Agent”** project is available for use.

## Configuration & Modification

Once the Joule Skill & Agent project is added into the lobby, it can be run directly without any modification.

However, if you need to modify Joule skills that are used within the project or you want to modify the agent, with its instructions/additional context or other fields, you can do so.

In order to understand the various capabilities of Joule Studio and work with them please refer to the link: [Create AI Capabilities | SAP Help Portal](#)

## Release and Deploy the Project

Once the agent is verified by the user / modified based on user need, it has to be released and deployed into a shared environment.

- Refer to the link below to create/Share an Environment:  
[Environments | SAP Help Portal](#)
- Refer to the link below to release a project:  
[Release a Project | SAP Help Portal](#)
- Refer to the link below to deploy a project:  
[Deploy a Project | SAP Help Portal](#)

## Test the Joule Skills And Agent in SAP Build

1. To access your projects, navigate to **Control Tower ->Tenant Configuration->Environments**.
2. Select your environment.
3. After deploying the project, the project should be seen in the Shared Environment.
4. Click on the Tab, '**Joule**'
5. Click on the button '**Launch**'

This will open the Joule launchpad where you can key in the below prompts in order to test the agent.

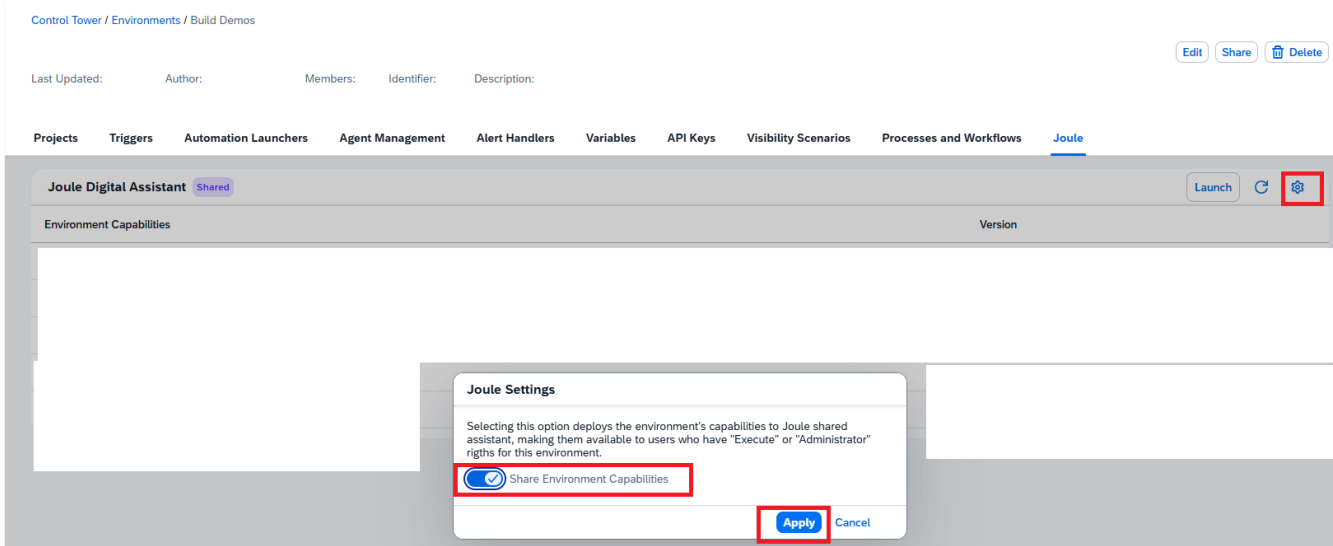
| Prompt  | Expected Result                     |
|---|-------------------------------------|
| Show delivery schedule for purchase order<br><Purchase order number><br><br>Ex: Show delivery schedule for purchase order<br>4500000350 | Delivery schedule details displayed |

|   |                                      |
|---|--------------------------------------|
| <p>Close PO &lt;Purchase order number&gt; item &lt;Item number&gt; delivery completion &lt;X or Blank&gt; final invoice &lt;X or Blank&gt;</p> <p>Ex: Close PO 4500000350 item 00010 material 000000000000000006 delivery completion X final invoice X delivery date 20250610</p>   | <p>PO item updated successfully</p>  |
| <p>Get info record &lt;Record Number&gt; purchase org &lt;Organization Number&gt; material &lt;Material Number&gt; vendor &lt;Vendor Number&gt;plant &lt;Plant Number&gt; max quantity&lt;Quantity&gt;</p> <p>Ex: Get info record 5300000013 purchase org 0001 material 0000000000000000033 vendor 0000100002 plant P001 max quantity 200</p> | <p>Info record details displayed</p> |

**NOTE:**

1: Currently the Agent will be only deployed in the SAP Build environment and hence testing can also be done only in the Build Lobby. If you want to **activate the Joule in other systems** Eg: SAP S/4HANA or SAP Workzone, then click on the **settings** in ‘Control Tower->Environments->< Your Shared Environment that was created>->Joule’

Here you have to switch the toggle on for ‘**Share Environment Capabilities**’.



**Support**

If you experience any issues or support related to Mass PO Closure Agent, Please contact:

**SAP\_BTP\_AI\_AUTO@infosys.coms**

