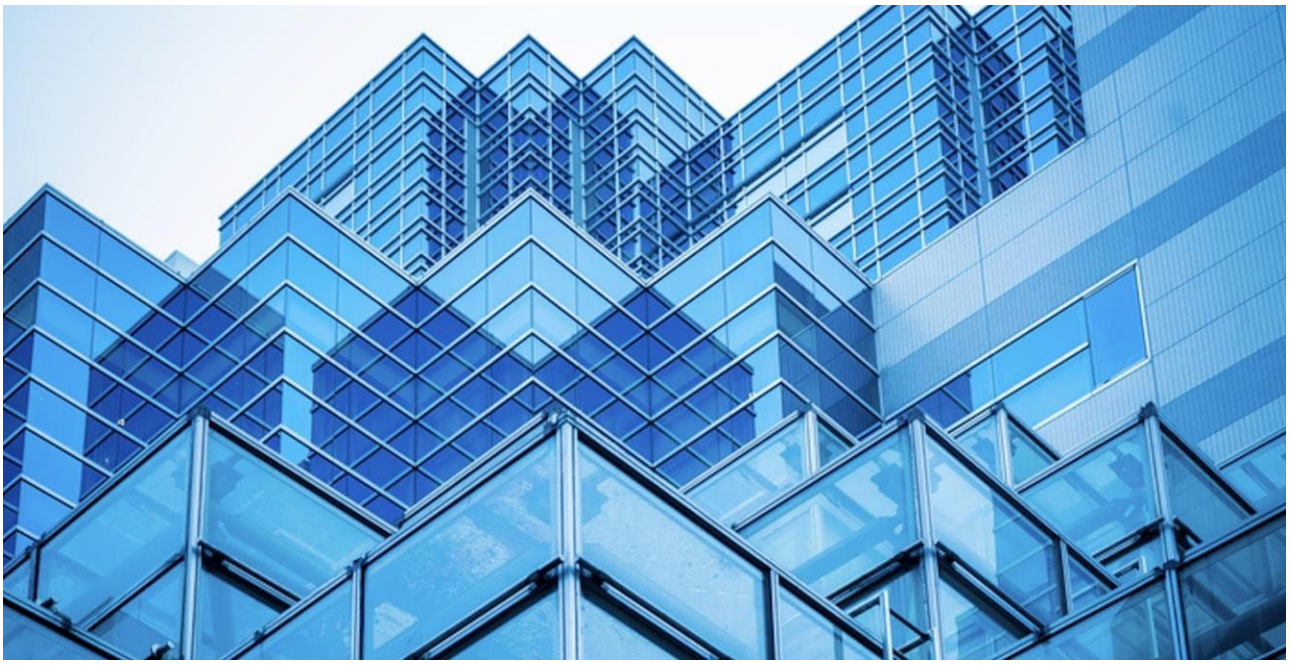


PUBLIC

SAP Build Process Automation

Supply Chain Control Tower – Exception Determination Using AI

Configuration and User Guide

Contents

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

1. **Overview:** In this section, you will get a quick overview of the use case, the high-level components used, and how the template works in a nutshell. The prerequisite section provides information about different services of SAP Business Technology Platform (SAP BTP) that are required to use this template.
2. **Configuration Guide:** This section contains information that will guide you to (a) Setup your SAP Business Technology Platform subscriber subaccount with destination and user roles and (b) Import and configure the template using SAP Build Process Automation.
3. **User Guide:** This section provides details about different artifacts that are used in this template like process definition, decision diagram, and action project details to better understand how different capabilities are used in this template.

Note:

- This documentation is not a detailed guide to setup SAP BTP services. It assumes that the IT admin who is setting the content is familiar with SAP BTP environment. **You must follow the instructions given in the Configuration section.**
- This template content is delivered to accelerate your solution development. You must modify this template according to your requirements to achieve the desired business goal. To use this template content, you must have basic knowledge and understanding of SAP Build Process Automation, SAP Business Accelerator Hub, and its capabilities.

Overview

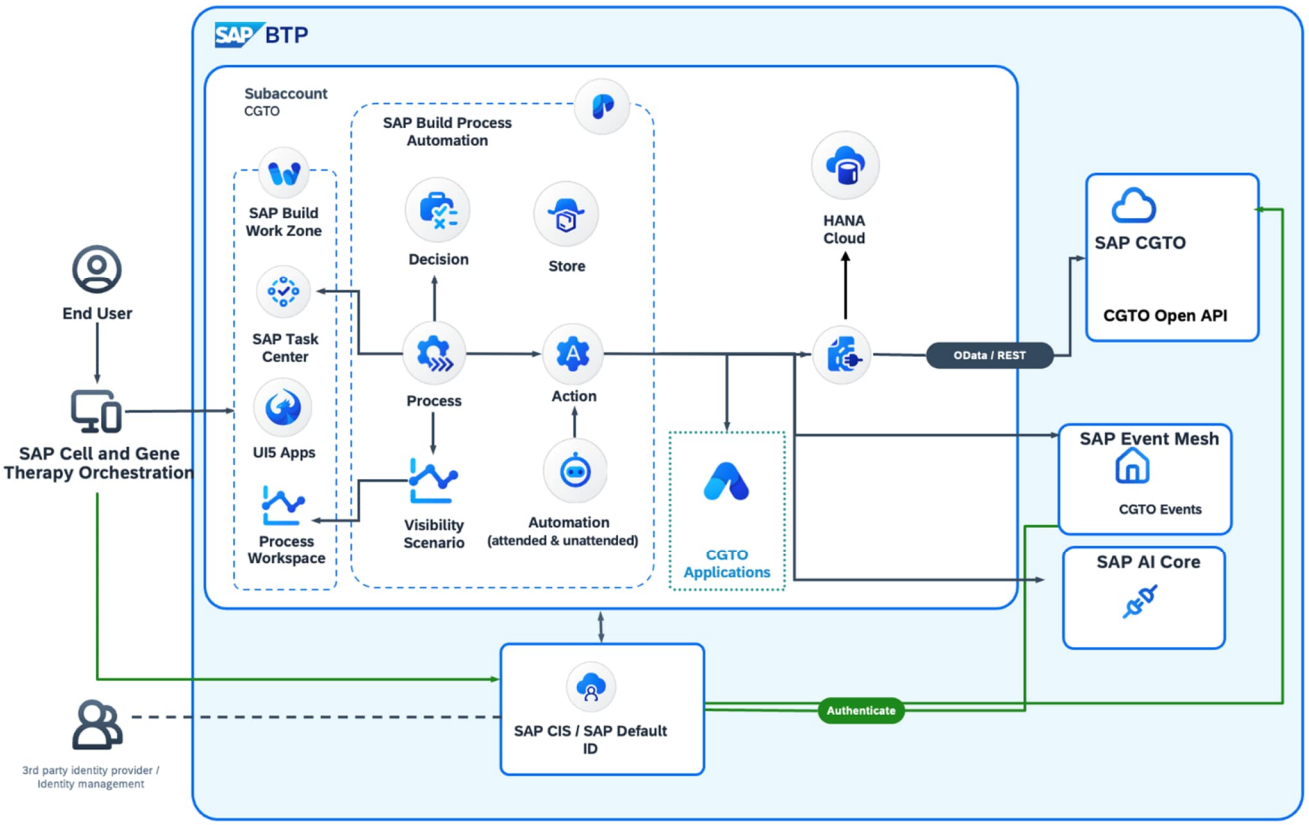
This document provides technical information about the configurations required to run the Supply Chain Control Tower – Exception Determination Using AI package. It primarily covers technical configurations, such as destination configuration. The main audience of this document are technical personas like IT Administrators or Developers.

It also covers the business configurations that can be done by a key user or a business process expert, like how to configure a process, a decision, or an action.

The Supply Chain Control Tower – Exception Determination Using AI package enables customers to set up AI model based on which exceptions can be determined and then created in SAP Cell and Gene Therapy Orchestration (SAP CGTO) system in a transparent way and provides flexibility to meet business requirements.

On scheduling the business process, exception generator will automatically trigger a process variant at the scheduled time or at regular intervals based on the scheduler configuration in SAP Build Process Automation. The process variant will do the following:

1. Read the treatment orders from SAP CGTO based on the input parameter (last modified time) specified in the process variant.
2. Read the related shipments and processing activities for each order.
3. Process all the data and use the AI Core action to determine the exception. For more information, see Determine Exception Using AI Core in Configure Actions.
4. Trigger exception creation in SAP CGTO system if an exception is identified.



Required SAP Business Technology Platform Services

The Supply Chain Control Tower – Exception Determination Using AI template is intended to be used for SAP Cell and Gene Therapy Orchestration and requires the following services in SAP BTP:

- SAP Build Process Automation
- SAP AI Core and SAP AI Launchpad
- Object Store Service
- SAP Cell and Gene Therapy Orchestration subscription on SAP Business Technology Platform, Cloud Foundry runtime

For more information about configuring the services, see Administration Guide for SAP Cell and Gene Therapy Orchestration.

Configuration Guide

The Supply Chain Control Tower – Exception Determination Using AI template requires SAP Build Process Automation subscription. For more information, see Initial Setup in SAP Build Process Automation user guide.

Configure Destinations and User Roles in SAP BTP Cockpit

Configure Destination for SAP CGTO Open APIs

You must configure destination in SAP BTP to connect to the open APIs delivered with SAP CGTO. For more information, see Create HTTP Destinations and OAuth2Client Credentials.

Note: Use the service key credentials from the SAP CGTO API access to configure the target destination.

The following table lists the destination properties required to configure the destination:

Destination Property	Value
Name	Name of the destination. For example, <CGTO_OpenAPI_Destination>.
Type	HTTP
URL	URL from the SAP Cell and Gene Therapy Orchestration API Access token
Proxy Type	Internet
Authentication	OAuth2ClientCredentials
Client ID	uaa.clientid from the service key of the Open API instance
Client Secret	uaa.clientsecret from the service key of the Open API instance
Token Service URL Type	Dedicated
Token Service URL	uaa.url from the service key, suffixed with /oauth/token?grant_type=client_credentials.

Configure Destination for SAP Event Mesh

You must configure destination in SAP BTP to connect to SAP Event Mesh. For more information, see Create HTTP Destinations and OAuth2Client Credentials.

The following table lists the destination properties required to configure the destination:

Destination Property	Value
Name	Name of the destination. For example, <CGTO_EventMesh_Destination>.
Type	HTTP
URL	URL from the SAP Cell and Gene Therapy Orchestration SAP Event Mesh Instance
Proxy Type	Internet
Authentication	OAuth2ClientCredentials
Client ID	uaa.clientid from the service key of SAP Event Mesh
Client Secret	uaa.clientsecret from the service key of SAP Event Mesh
Token Service URL Type	Dedicated
Token Service URL	uaa.url from the service key, suffixed with /oauth/token from service key

Configure Destination for SAP AI Core

You must configure destination in SAP BTP to connect to SAP AI Core. For more information, see Create HTTP Destinations and OAuth2Client Credentials.

The following table lists the destination properties required to configure the destination:

Destination Property	Value
Name	Name of the destination. For example, <CGTO_AICore_Destination>.
Type	HTTP
URL	serviceurls. AI_API_URL from the service key of SAP AI Core instance
Proxy Type	Internet
Authentication	OAuth2ClientCredentials
Client ID	clientid from the service key of the SAP AI Core instance
Client Secret	clientsecret from the service key of the SAP AI Core instance
Token Service URL Type	Dedicated
Token Service URL	url from the service key of the SAP AI Core instance, suffixed with /oauth/token

Configure User Roles

To access this template, the business user will need the following roles:

Role Name	Purpose
ProcessAutomationDeveloper	Standard Business User, can model and publish processes
TaskCenterAdmin	Permission to execute calls to the connector status API and monitor configured destinations and running background jobs.

Role Name	Purpose
ProcessAutomationParticipant	To execute (like accessing My Inbox, running the automations, etc.) this content package, you need to have this role assigned to the respective user.
ProcessAutomationAdmin	To perform process admin activities like accessing applications, monitoring applications, etc., you need to have this role assigned to the respective user.
Business_Application_Studio _Developer	Allows developers to load and develop applications using SAP Business Application Studio.
Business_Application_Studio _Administrator	Allows administrators to manage (export and delete) user data.

For more information about SAP Build Process Automation roles, see Authorizations.

Setup Content Package

Import SAP Build Process Automation content

Standard automation packages released by SAP will be available at the SAP Build Process Automation Store.

This template can be downloaded from the Store:

1. Navigate to the *Store* in your SAP Build Process Automation account.
2. Select *Business Process* in the *Project Type* filter.
3. In the *Search* bar type *Supply Chain Control Tower – Exception Determination Using AI*.
4. Choose the *Create from Template* button to add the template to your lobby.
5. After successfully adding the template, navigate back to the lobby to find *Supply Chain Control Tower – Exception Determination Using AI* template available for use.

Caution: Ensure that you select the *Project Type* as *Business Process* in the filters.

Configuration and Modification

Once you have added the content to your lobby, you will find the project in your project list.

Adapt the content template based on your requirements and then release and deploy the template from the lobby.

In case any extension needs to be made, then follow the reference links below.

Create Process

Create a Business Process | SAP Help Portal

Configure Actions

After configuring the package, you can configure actions. For more information, see Adding Actions.

- Processing Activity Data for AI Exception Determination
- Treatment Order Data for AI Exception Determination
- Shipment Data for AI Exception Determination

- Determine Exception Using AI Core
- Exception Creation for AI Exception Determination

Name	Method	API Path	Purpose
Processing Activity Data for AI Exception Determination	GET	*Path:* https://api.sap.com/api/API_PROCESSING_ACTIVITY_V2/overview *URL Prefix:* /openapi/v2/processing-node	To read processing activity details
Shipment Data for AI Exception Determination	GET	*Path:* https://api.sap.com/api/API_SHIPMENT_V2 *URL Prefix:* /openapi/v2/shipment	To read shipment details
Treatment Order Data for AI Exception Determination	GET	*Path:* https://api.sap.com/api/API_TREATMENT_ORDER_V2/overview *URL Prefix:* /openapi/v2/treatmentorder	To read treatment orders
Determine Exception Using AI Core	POST	*Path:* *<AICORE_Destination_path>* *URL Prefix:* /v2/inference/deployments/{deploymentId}/v2/predict	To predict exception
Exception Creation for AI Exception Determination	POST	*Path:* https://api.sap.com/event/Tasks_and_Exceptions/overview *URL Prefix:* */messagingrest/v1/topics/{namespace-exceptionCreation}%2Finbound%2Fevents%2Freceiver/messages*	To create exception

Release and Deploy the Process

After configuring your process, you can publish, test, and run it. To run a process, you must first release and deploy it.

Release

This locks the version of your process, meaning that no further edits can be made to that version. At this stage, the process can't be run and isn't available to participants yet.

To release a version of your process:

1. First, ensure that the status is listed as *Editable*.
2. Then, click *Release*.

For more information, see Release a Project in SAP Build Process Automation user guide.

Note: If this is the first time you've released the process, a version labelled 1.0.0 is released. For subsequent releases, you're prompted to select a version type before the process is released.

Import Destination

Actual destinations that are created in SAP BTP cockpit will be required when you deploy the process. This destination will be mapped to the destination environment variables during deployment.

To configure destination:

1. Click *Control Tower*.
2. Select *Destinations* from the right panel.

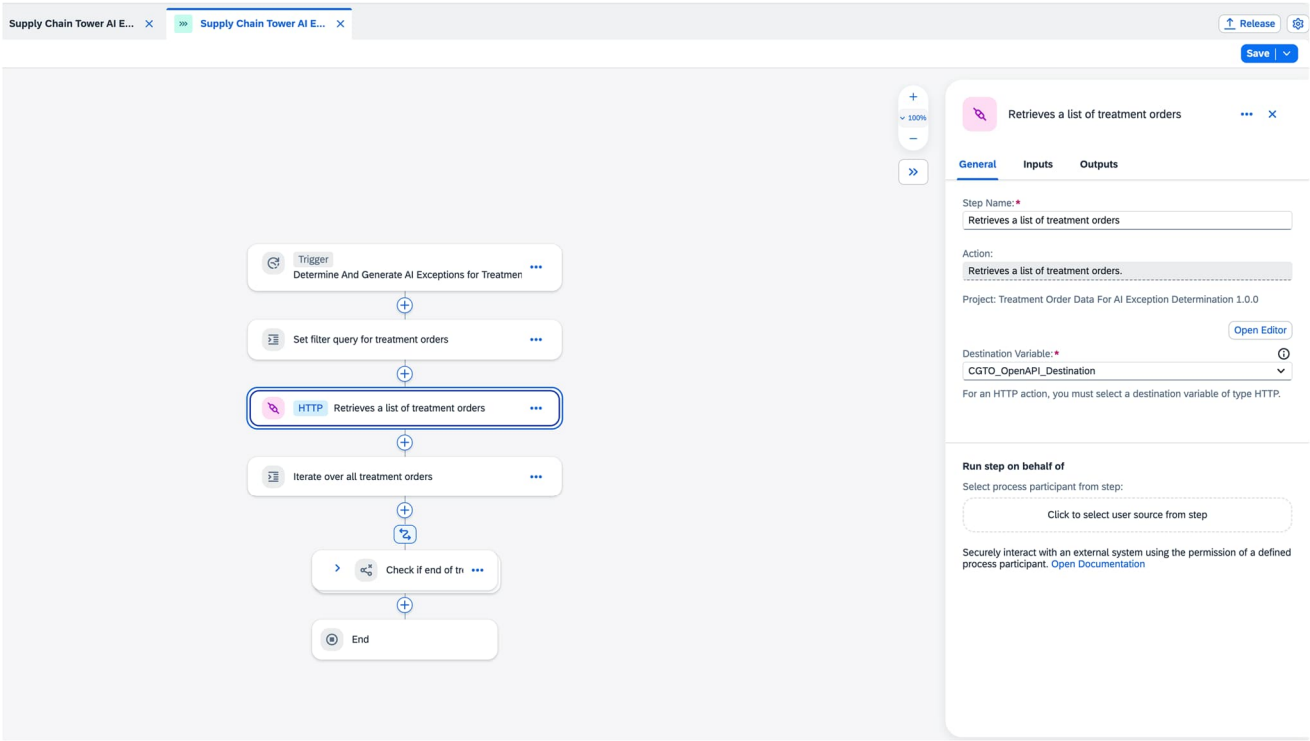
   Select the destinations (created in the Configure Destinations and User Roles in SAP BTP Cockpit section) to be added.
3. Click *Add*.

For more information, see Mange Destinations.

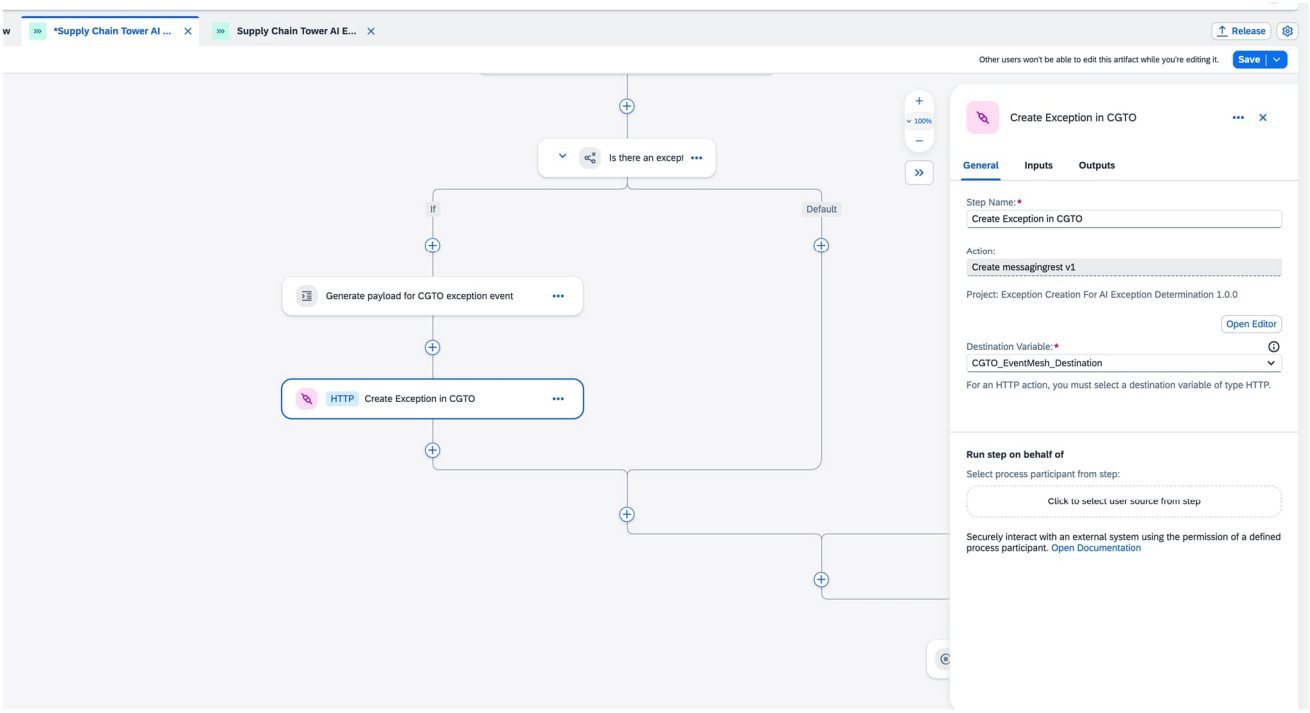
After importing destinations, go to the process and add destinations to the process as described in the below screenshot:

Note: This is applicable for the below actions:

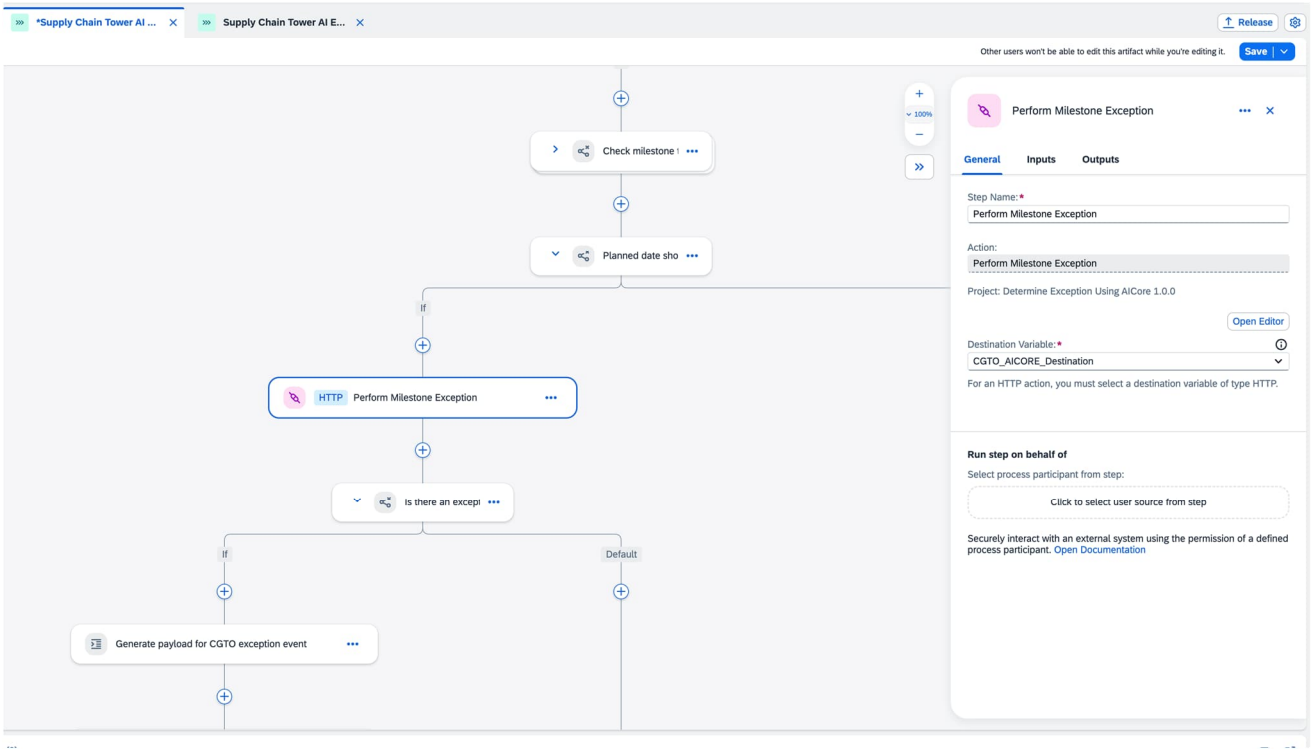
- Processing Activity Data for AI Exception Determination
- Treatment Order Data for AI Exception Determination
- Shipment Data for AI Exception Determination



Then, add the destination for the *Exception Creation for AI Exception Determination* action (Step name in the below screenshot: *Create Exception in CGTO*).



Then, add the destination for the *Determine Exception Using AI Core* action (Step name in the below screenshot: *Perform Milestone Exception*).



Deploy

This takes a released version of a process and enables it to be actively run and monitored. A deployed version of this approval process unlocks the request form, allowing participants to submit requests and the approvers to view items in their inbox.

To deploy a released version of your process,

1. First, ensure that the status is listed as *Released*.
2. Then, click *Deploy*.

For more information, see Deploy Project.

To deploy your project, you will be prompted to provide a destination as an environment variable. Select the destination from the drop-down and fill other environment variables as well.

- **<CGTO_OpenAPI_Destination>:** SAP BTP destination to connect with SAP CGTO openapi.
- **<CGTO_EventMesh_Destination>:** SAP BTP destination to connect with SAP CGTO Event Mesh instance.
- **<CGTO_ AICore_Destination>:** SAP BTP destination to connect with SAP AICore instance.

Note: If you do not map your destination environment variable with the actual SAP Business Technology Platform destination during deployment, the process will enter erroneous state when it tries to connect to the external system.

Trigger List

With a scheduled trigger, the execution will be triggered based on the trigger configuration. For more information, see Scheduled Trigger.

Name	Process Executed	Input Parameter
Determine and Generate AI Exceptions for Treatment Orders	Supply Chain Control Tower – Exception Determination Using AI	Specify the value in *lastmodifiedtime* parameter. For example, you can specify 2 if you want to read the orders modified within the last two minutes before the process execution time.

User Guide

Capabilities

This template consists of the following capabilities.

Please refer help documentation about these different artifacts.

Type	Name	Description
SubProcess	Supply Chain Control Tower – Exception Determination Using AI Subprocess	Subprocess to perform exception prediction via SAP AI Core and send the exception event to SAP CGTO
Process	Supply Chain Control Tower – Exception Determination Using AI	Main process for supply chain control tower exception generation using SAP AI Core

Support

There is no support available for template content. If you experience general issues with SAP Build Process Automation, please follow the links below:

- Troubleshoot Support Guided Answer
- Test an Automation Help portal Article
- Test an Application Help portal Article
- Get traces Support Guided Answer

If the issue persists, please raise an incident via SAP Support Portal on IS-LS-CGT component.

This template can be modified using SAP Build Process Automation. Refer help portal for more details.

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