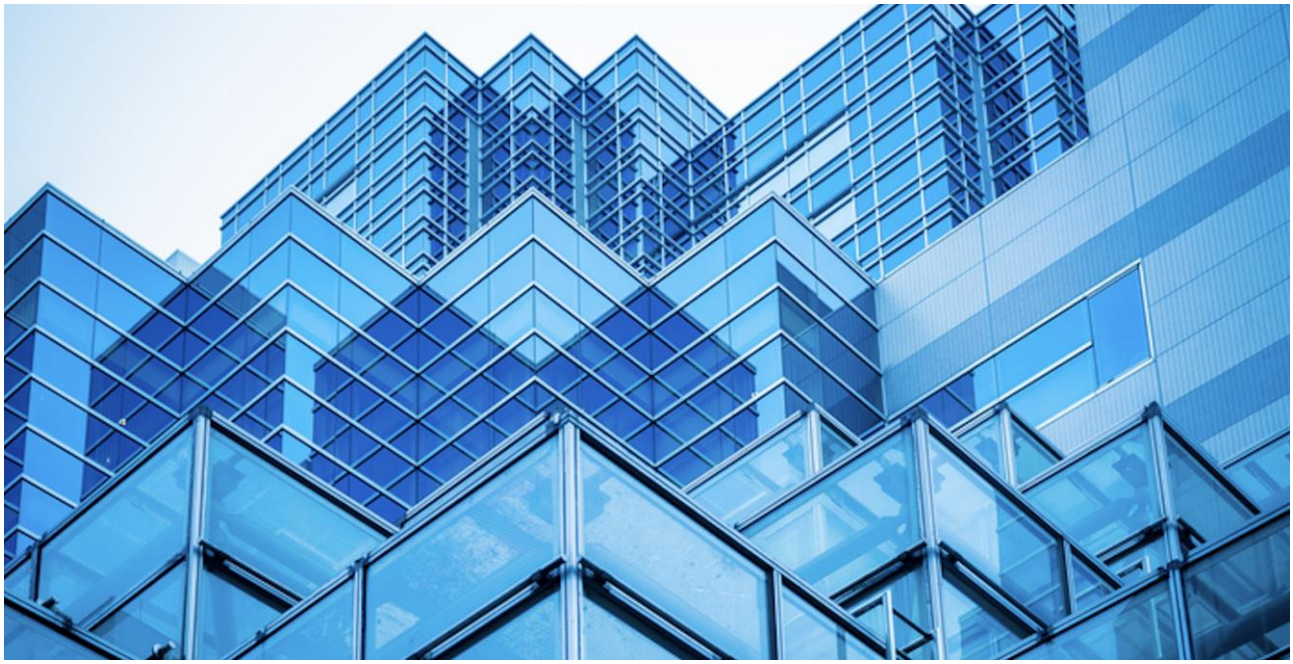


PUBLIC

SAP BAPI Automation

Process Order Confirmation (BAPI)

Contents

Change Log

Version	Date	Description
1.0.0	May 19th, 2023	Document created
1.0.1	March 22nd, 2024	Document Updated

Overview

This document provides the information about the configuration & execution of BAPI (Business Application programming Interface) business project. This project 'Process Order Confirmation (BAPI)' is used for confirmation of Process Orders through BAPI function execution.

SAP BAPI is a standard interface to the business object models in SAP products. BAPIs are the primary method through which customer code and third-party applications interact with SAP products. BAPIs wrap the internal layers of SAP's business object model to ensure that all business logic, validations, and authorization checks are executed properly when accessing or changing business objects (For more information click here).

The actions from BAPI action group also contains following features.

- The BAPI Action group allows us to execute multiple activities like set connection, open connection, execute BAPI, commit transaction & close connection as a single automation activity.
- It provides the data type for BAPI input & BAPI response that contains all the input, output & test parameters for BAPI function BAPI_PROCORDCONF_CREATE_HDR (for Process Order Confirmation).

Prerequisites

- The project template requires SAP Build Process Automation subscription or CPEA contract. Follow the setup and configuration section.
- The setup of desktop agent can be checked under "Configure Automation Capabilities" section from the above link.
- Desktop agent version greater than 3.15.23.
- For usage of BAPI methods in an automation please check the prerequisites here.
- Configure SAP connection (SSO or Basic based on your requirement). For more information you can check following links:
    - BAPI Connection System
    - Best Practices for SAP BAPI Activities

Capabilities

This business project consists of the following capabilities.

- This project has the capability to execute all Process Orders present in the input config file.
- This project can establish connection to the SAP system, executes the BAPI function with the use of BAPI action group.
- It can read the BAPI response & update the required response data to the output excel file.

Name	Description
BAPI function name: BAPI_PROCORDCONF_CREATE_HDR	This BAPI function on execution confirms the process orders
Business project name: Process Order Confirmation (BAPI)	This is used to confirm process orders based on the input data provided in input config file.

Procedure

Followings provides the project setup & configuration details along with project features & execution details:

Project Configuration

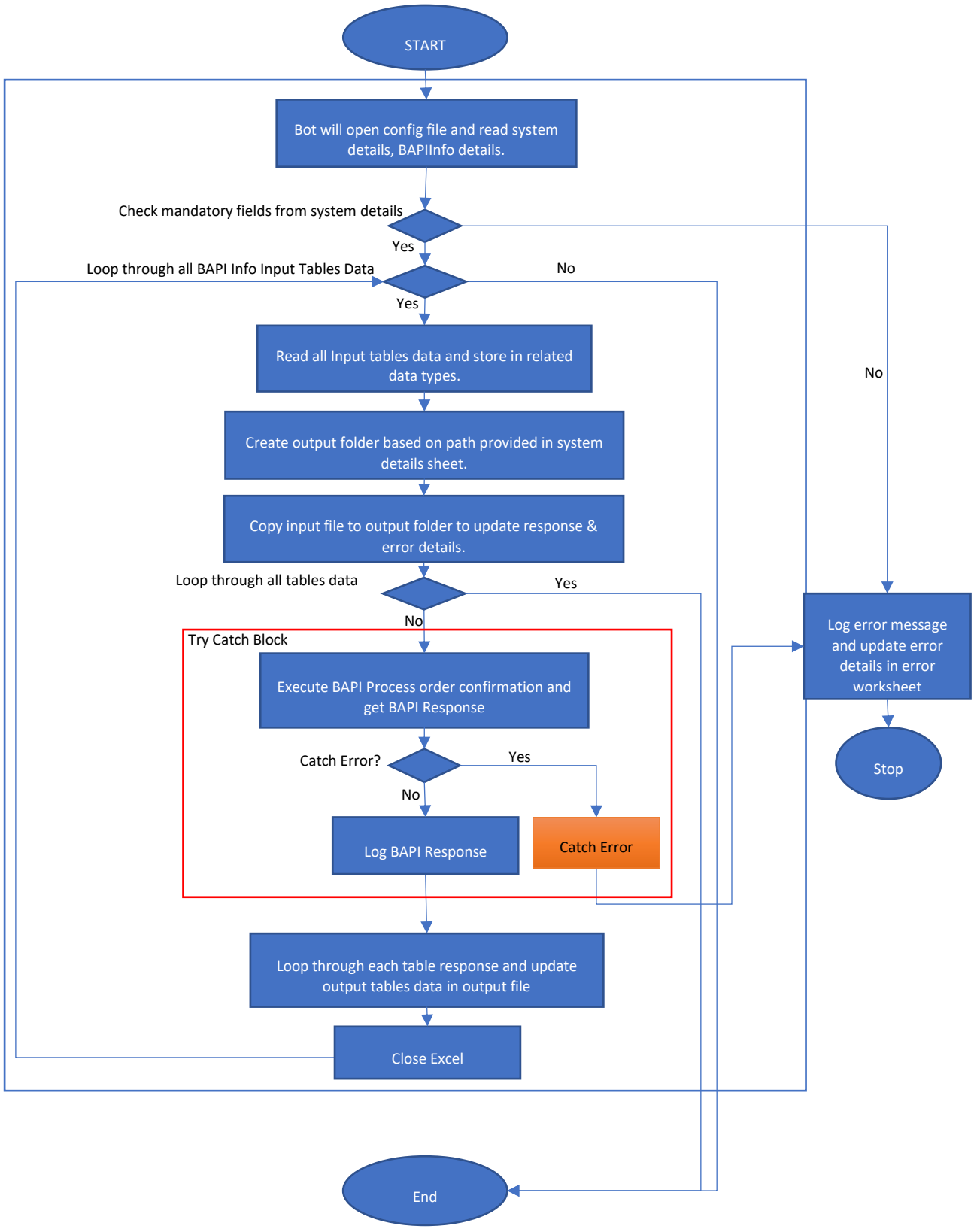
Following steps can be followed for the setup of business project:

- Navigate to the Store in your SAP build process automation application.
- In the Search bar, type "**Process Order Confirmation (BAPI)**".
- Click "**Create from Template**" button to create the new project that will be available in the lobby.
- After successful project creation, project will be opened.
- Download the input configuration file configBAPI_ProcessOrderConfirmation.xlsx from the business project.
- Input configuration file contains information like system details, BAPI info, input tables and output tables details:
    - System details sheet will have the information such as system id, app server, instance number and client.
    - BAPI Info sheet will have information like function module, input tables and output tables names.
    - Input tables and output tables will have related information of the table parameters.

Notes:

- Provided input excel file contains test data & must be updated with new data as per the requirement.
- 'Error' sheet needs to be provided in the input excel file (as provided in sample input file) to capture any error.
- Input parameters needs to be provided in the same format as in sample input excel file (With first row as property name for which you can refer to the action group **Process Order Confirmation** in the project, second row must be the description (or NA) & data values need to be provided in subsequent rows)
- Make sure to add input excel path in the input Parameter while creating automation trigger for deployed package (For more info check section: 'Modes of Execution').

Project Execution Flow



Project Overview

- The project execution starts with reading of the input config file data and creates related data types to store the values.
- Automation will check mandatory fields are available to execute the automation. If fields are missing, then it will throw an exception and stop the automation.
- Automation will loop through BAPI info array to read all input tables data and store in related data type.
- Automation will create output folder based on path provided in system details sheet and copy input file to output folder for updating BAPI response data.
- Automation creates a BAPI input variable with empty values.
- It loops through all he tables data by matching sequence number.
- Reads values from each input table based on sequence number and store them in BAPI Input variable.
- Calls the BAPI action group by passing BAPI input data and executes it.
- If action group executed successfully,

    - Then it will give BAPI response as output.
    - Update response values to the output excel file by match tables.

- If action group is not executed successfully,

    - Then it will throw an exception.
    - Bot will read the exception details and update them in the output excel file.

- Repeats the above steps for all sequence numbers in input tables and update the output file.

Release & Deploy Project

The project must be released and deployed for the usage.

- For information on project release click here.
- For information on project deployment click here.

Note: During project deployment you can select the default environment “public” or might create your environment (For more information check here).

Modes of Execution

Once you have your project deployed successfully, you will have following two options to trigger the automation bot:

- **Standard/Unattended execution:**

  Unattended execution of the project can be created by selecting scheduled option during the automation trigger & providing required scheduling information.

- **Attended execution:**

  The package has a project pane with a menu item for triggering attended execution. Attended execution can be created by selecting attended option during automation trigger & your automation will be available as menu item within the agent menu in the system.

- Automation “Process Order Confirmation – Start” starts the execution of project which requires path of the input excel file that must be provided by clicking “Input parameter” while creating the automation trigger.
- Please click here to create the automation trigger.

Debugging Automation

Automations can be tested in the automation editor & its debugging feature can be utilized to test your automation flow & data values.

For detailed information please check here).

Dependencies

The table below details the versions used to generate the mentioned automation bot.

Component	Version
Desktop Agent	3.15.23
Factory/Tenant	2304.04
SDK Core	1.36.29
SDK Excel	1.36.29
SDK BAPI	1.36.29
Application	Version
Saplogon.exe	Release 800
Microsoft Excel	Version 2102