



**UiPath Reusable Component - SRC
Master Data Package
for SAP ERP
User Manual**

Explanatory Material : UiPath Reusable Component - SRC Master Data Package for SAP ERP

1. Overview

In this Package, the Workflow Templates are provided to automate the operation of SAP ERP with UiPath. This Workflow Templates are possible to use SAP with "Common Reusable Components" for better work efficiency.

Depending on the setting for each environment (Version, Component, Business Add In, Setting of Parameter, etc), it might be necessary to adjust the Workflow Templates. Check each Workflow Templates and use it as a reference when creating individual workflows.

2. About the usage

Please check the items below before using this Workflow Template.

- This component is tested in the following environment.
 - UiPath Studio 18.4.4
 - SAP ERP(6.0)
 - SAP GUI for Windows Release 750
- The Workflow Template provided in the "Common Reusable Components" of UiPath Go! Must be saved together when using the UiPath Reusable Component for SAP ERP.
 - (Please also refer to the explanatory material "UiPath Reusable Component-SRC for SAP ERP About usage")
- If you want to execute a Workflow whose workflow name includes v2.2 or BAPIv2.2, you need to install UiPath.SAP.BAPI.Activities.2.2 or later. Before executing each workflow, please make sure that the above activities are installed.
- Do not start Excel when executing.
- Please refer to "Common Reusable Components" of UiPath Go! in how to create data files for STEP1.
 - In this Component, based on the Input File created using "SRC_GUI_SelectorDataBuilder" provided by "Common Reusable Components" of UiPath Go!, input file is created with the necessary added functions.
 - Code display are required for items in the drop-down list. Select "Show keys within dropdown list" in GUI Interactive Design settings.

3. Features of the components

Component: [UiPath Reusable Component Master Data Package for SAP ERP]
Version: 1.1.0

No.	Workflow Name	Feature
1	SRC_BAPI_MATERIAL_SAVEDATA_v2.2_E	Register Material Master using "BAPI_MATERIAL_SAVEDATA".
2	SRC_BAPI_BANK_CREATE_v2.2_E	Register Bank Master using "BAPI_BANK_CREATE".
3	SRC_BAPI_PROFITCENTER_CREATE_v2.2_E	Register Profit Center Master using "BAPI_PROFITCENTER_CREATE".
4	SRC_BAPI_COSTCENTER_CREATEMULTIPLE_v2.2_E	Register Cost Center Master using "BAPI_COSTCENTER_CREATEMULTIPLE".
5	SRC_BAPI_FIXEDASSET_CREATE1_v2.2_E	Register Fixed Asset Center using "BAPI_FIXEDASSET_CREATE1".
6	SRC_BAPI_COSTCENTERGROUP_CREATE_v2.2_E	Register Cost Center Group using "BAPI_COSTCENTERGROUP_CREATE".
7	SRC_BAPI_PROFITCENTERGRP_CREATE_v2.2_E	Register Profit Center Group using "BAPI_PROFITCENTERGRP_CREATE".
8	SRC_BAPI_BOM_UPLOAD_SAVE_v2.2_E	Register Material BOM using "BAPI_BOM_UPLOAD_SAVE".
9	SRC_MAT_MSTR_CRT_E	Register Material Master from the screen of Transaction Code:MM01.
10	SRC_VND_MSTR_CRT_E	Register Vendor Master from the screen of Transaction Code: XK01.
11	SRC_CST_MSTR_CRT_E	Register Customer Master from the screen of Transaction Code:XD01.
12	SRC_CRE_MSTR_UPDT_E	Change Customer Credit Management from the screen of Transaction Code:FD32.
13	SRC_INFO_REC_CRT_E	Register Purchasing Info Master from the screen of Transaction Code:ME11.
14	SRC_ACC_MSTR_CRT_E	Register Accounting Code Master from the screen of Transaction Code:FS00.
15	SRC_LST_UPDT_E	Register Maintain Source List from the screen Transaction Code:ME01.
16	SRC_QOT_ARRGMT_UPDT_E	Register Maintain Quota Argument from the screen Transaction Code:MEQ1.
17	SRC_BAPI_PROJECTDEF_CREATE_v2.2_E	Register Project using "BAPI_PROJECTDEF_CREATE". *December 2019 additional function
18	SRC_BAPI_WBS_CREATE_v2.2_E	The following BAPI is executed continuously to register WBS and change the status. "BAPI_PS_INITIALIZATION" (Initialization) "BAPI_BUS2054_CREATE_MULT" (WBS registration) "BAPI_BUS2054_SET_STATUS" (WBS status change) "BAPI_PS_PRECOMMIT" (PS precommit process) *December 2019 additional function (Using UiPath.SAP.BAPI.Activities.2.2.1 or later)
19	SRC_BAPI_NETWORK_MAINTAIN_v2.2_E	The following BAPI is executed continuously to register the network and change the status. "BAPI_PS_INITIALIZATION" (Initialization) "BAPI_BUS2002_CREATE" (Network registration) "BAPI_BUS2002_ACT_CREATE_MULT" (Change Network) "BAPI_PS_PRECOMMIT" (PS precommit process) *December 2019 additional function (Using UiPath.SAP.BAPI.Activities.2.2.1 or later)
20	SRC_BAPI_PROJECT_MAINTAIN_v2.2_E	Register and change the project WBS / Network using "BAPI_PROJECT_MAINTAIN". *December 2019 additional function (Using UiPath.SAP.BAPI.Activities.2.2.1 or later)

4. Concept of the reusable components

UiPath Reusable Component for SAP ERP includes various features to improve efficiency in data registration and modification.

In this Package is included [2. Data registration in SAP ERP using BAPI] and [3. Data registration in SAP ERP using GUI]. Please use it as a reference when creating workflows each development environment.

1. Data registration file creation support feature for Batch Input

Provided as a standard feature of SAP ERP, use the Batch Input to convert the data file exported from Batch Input Session to Excel format.

There is also a feature to change Excel format to a text file format that can be imported into Batch Input Session.

-> Already published on UiPath GO. Search for [UiPathTeam.SRC.SAP_ERP.1.0.1]

Explanatory Material : UiPath Reusable Component - SRC Master Data Package for SAP ERP

2. Data registration in SAP using BAPI

By using the released "UiPath.SAP.BAPI.Activities.2.2" or later, it is possible with some modifications, enable the registration of multiple header data. In this Package, the Workflow Templates to create in STEP1 and the Data Files are provided. It is possible to register multiple header data executing "SRC_BAPIv2.2_REGISTER" provided by "Common Reusable Components" of UiPath Go! Please refer to "SRC_BAPIv2.2_REGISTER" of "Common Reusable Components" for usage.

STEP1

- Use "UiPath.SAP.BAPI.Activities.2.2." or later to create a workflow for registration.
 - "UiPath.SAP.BAPI.Activities" outputs an Excel Template for registration.
 - From the Workflow and Excel Template above, if necessary change the Workflow to be able to register multiple headers / multiple items.
- > **This Component can simply be used with the Workflow and Input File for each BAPI without the above development.**

STEP2

Execute "SRC_BAPIv2.2_REGISTER" and register the inputted data of Input File.

Also check the setting method of AUTHORITY_CHECK included in the "SRC_BAPIv2.2_REGISTER" explanation material of "Common Reusable Components".

Ex : BAPI_MATERIAL_SAVEDATA

Workflow and Input File included in this Component

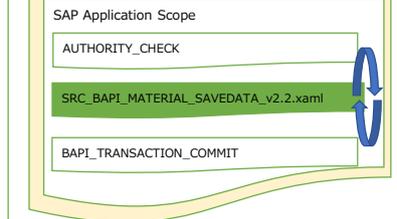


Material	Plant	Storage Location	Material Group	Material Type	Material Status	Material Category	Material Description	Material Unit of Measure	Material Base Unit of Measure	Material Conversion Factor	Material Conversion Factor 2	Material Conversion Factor 3	Material Conversion Factor 4	Material Conversion Factor 5	Material Conversion Factor 6	Material Conversion Factor 7	Material Conversion Factor 8	Material Conversion Factor 9	Material Conversion Factor 10	
000001	0001	0001	0001	0001	0001	0001	0001	0001	0001	0001	0001	0001	0001	0001	0001	0001	0001	0001	0001	0001



Enter the data to be registered in the Input File processed for multiple data registration.

The registration Workflow and Commit Work are executed, and various data can be registered.



Material	Plant	Storage Location	Material Group	Material Type	Material Status	Material Category	Material Description	Material Unit of Measure	Material Base Unit of Measure	Material Conversion Factor	Material Conversion Factor 2	Material Conversion Factor 3	Material Conversion Factor 4	Material Conversion Factor 5	Material Conversion Factor 6	Material Conversion Factor 7	Material Conversion Factor 8	Material Conversion Factor 9	Material Conversion Factor 10
000001	0001	0001	0001	0001	0001	0001	0001	0001	0001	0001	0001	0001	0001	0001	0001	0001	0001	0001	0001

3. Data registration to SAP using GUI

The workflow within this Component, enable the process automation of registration data through multiple screens. It is necessary to have a logged SAP GUI instance before execute.

Confirm the following configuration.

- Regarding the GUI operation, only the items in the attached sample sheets are tested for reference.
- Error Message is not supported with all messages. If Error / Warning / Information are occurred, the message is displayed as below.
 - Error : Stop registration to the data and take screenshot of the error screen after get the message details.
 - Warning / Information : Check if the message is displayed repeatedly. If it is displayed, exit the process.

* The following procedure is assumed.

STEP1

Move to the screen where data will be registered and execute "SRC_GUI_SelectorDataBuilder_E"

Click on the SAP fields where data will be registered. After click all necessary fields, finish the process and the Input File and Selector File for data registration will be created.

Input File																																	
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STEP2

According to each environment, get the correspondent Resource information as selectors used for screen transition and data registration, used together with the Input File and Selector File prepared in the STEP1 and create a workflow that can register data.

BASIS Components includes a Workflow Template for JOB registration that can be used as reference.

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[Data registration using BAPI]

1. Overview

No.	Workflow Name	Feature
1	SRC_BAPI_MATERIAL_SAVEDATA_v2.2_E	Register Material Master using "BAPI_MATERIAL_SAVEDATA".
2	SRC_BAPI_BANK_CREATE_v2.2_E	Register Bank Master using "BAPI_BANK_CREATE".
3	SRC_BAPI_PROFITCENTER_CREATE_v2.2_E	Register Profit Center Master using "BAPI_PROFITCENTER_CREATE".
4	SRC_BAPI_COSTCENTER_CREATEMULTIPLE_v2.2_E	Register Cost Center Master using "BAPI_COSTCENTER_CREATEMULTIPLE".
5	SRC_BAPI_FIXEDASSET_CREATE1_v2.2_E	Register Fixed Asset Center using "BAPI_FIXEDASSET_CREATE1".
6	SRC_BAPI_COSTCENTERGROUP_CREATE_v2.2_E	Register Cost Center Group using "BAPI_COSTCENTERGROUP_CREATE".
7	SRC_BAPI_PROFITCENTERGRP_CREATE_v2.2_E	Register Profit Center Group using "BAPI_PROFITCENTERGRP_CREATE".
8	SRC_BAPI_BOM_UPLOAD_SAVE_v2.2_E	Register Material BOM using "BAPI_BOM_UPLOAD_SAVE".
20	SRC_BAPI_PROJECTDEF_CREATE_v2.2_E	Register Project using "BAPI_PROJECTDEF_CREATE".
21	SRC_BAPI_WBS_CREATE_v2.2_E	The following BAPI is executed continuously to register WBS and change the status. "BAPI_PS_INITIALIZATION" (Initialization) "BAPI_BUS2054_CREATE_MULT" (WBS registration) "BAPI_BUS2054_SET_STATUS" (WBS status change) "BAPI_PS_PRECOMMIT" (PS precommit process)
22	SRC_BAPI_NETWORK_MAINTAIN_v2.2_E	The following BAPI is executed continuously to register the network and change the status. "BAPI_PS_INITIALIZATION" (Initialization) "BAPI_BUS2002_CREATE" (Network registration) "BAPI_BUS2002_ACT_CREATE_MULT" (Change Network) "BAPI_PS_PRECOMMIT" (PS precommit process)
23	SRC_BAPI_PROJECT_MAINTAIN_v2.2_E	Register and change the project WBS / Network using "BAPI_PROJECT_MAINTAIN".

2. Concept of the reusable components

The Workflow Templates are provided that require preparation before registration in STEP1 and describe the process definition for each BAPI.

* Feature Overview

Ex : BAPI_MATERIAL_SAVEDATA

Workflow and Input File included in this Component

SAP Application Scope

Invoke SAP BAPI BAPI_MATERIAL_SAVEDATA

Input File

The registration Workflow and Commit Work are executed, and various data can be registered.

SAP Application Scope

AUTHORITY_CHECK

SRC_BAPI_MATERIAL_SAVEDATA_v2.2.xml

BAPI_TRANSACTION_COMMIT

Input file after data registration

Enter the data to be registered in the Input File processed for multiple data registration.

* About Folder Structure

The following folder structure is assumed.

Sample_SRC_BAPIV2_2_REGISTER This xml file is a sample execution file.

Data

Argument file is for registering SAP login information, etc.

SRC_BAPIV2_2_REGISTER Invoke the required Workflow for each BAPI and perform registration processing.

SRC Common

Error Folder for saving the screen shot to be acquired if an error occurs during process execution.

Log Folder for saving execution logs.

Common Components

SRC_BAPI_MATERIAL_SAVEDATA_v2.2

Input Data Input Data file to be registered in SAP.

SRC_BAPI_MATERIAL_SAVEDATA_v2.2 This xml file is for registration processing by BAPI.

Master Data Components

Sample Files are saved in the above folder structure including Sample_SRC_BAPIV2.2_REGISTER, Data folder, and Argument file.

* About the configuration of Input Data (Data file created with SRC_BAPI name to register multiple headers and multiple items)

1. SRC_Contents -> List of "Import" and "Tables" displayed in Transaction Code SM37

	A	B	C	D	E	F	G	H	I
1	Import								
2	HEADDATA	LIKE	SAPMATHEAD						Header segment with control information
3	CLIENTDATA	LIKE	SAPIMARA						Client-specific material data
4	CLIENTDATAK	LIKE	SAPIMARAX						Information on update for CLIENTDATA
5	PLANTDATA	LIKE	SAPIMARC						Plant-specific material data
6	PLANTDATAK	LIKE	SAPIMARCK						Information on update for PLANTDATA
7	FORECASTPARAMETERS	LIKE	SAPIMPOP						Forecast Parameters
8	FORECASTPARAMETERSK	LIKE	SAPIMPOPK						Information on update for FORECASTDATA
9	PLANNINGDATA	LIKE	SAPIMPGD						Planning data
10	PLANNINGDATAK	LIKE	SAPIMPGDK						Information on update for PLANNINGDATA
11	STORAGELOCATIONDATA	LIKE	SAPIMARD						Storage-location-specific material data

[Data registration using BAPI]

2. BAPI_MATERIAL_SAVEDATA -> Worksheet of BAPI name for registering information that holds only one item per header when using that BAPI.

	A	B	V	W	X	Y
1	No	Name	FLAG_ONLINE	FLAG_CAD_CALL	NO_DEQUEUE	NO_ROLLBACK_WORK
2	Description	No ALE Field Selection	Call From CAD System	Screens, display user entry	Override rollback if error occurs	
3	DataType	String	String	String	String	
4	Length	1	1	1	1	
5	Mandatory	False	False	False	False	
6	Direction	In	In	In	In	
7						

3. HEADDATA etc.

-> 1. SRC_Contents, 2. BAPI_XXX_XXX (BAPI name worksheet), 4. About worksheets other than SRC_Log
In Transaction Code SM37, worksheet is created for each parameter name displayed in the list of "Import" and "Tables".

	A	B	C	D	E	F	G	H	I
1	No	Name	MATERIAL	IND_SECTOR	MATL_TYPE	BASIC_VIEW	SALES_VIEW	PURCHASE_VIEW	MRP_VIEW
2	Description	Material Number (18 Characters)	Industry Sector	Material type	Basic Data View	Sales View	Purchasing View	Material Requirements	
3	DataType	String	String	String	String	String	String	String	
4	Length	18	1	1	1	1	1	1	
5									
6									

In "No", enter a number to identify the header data.

When registering multiple information for one header, enter the same value for header in "No" as shown below to determine which header information to be registered for multiple items.

	A	B	C	D	E	F
1	No	Name	PLANT	DEL_FLAG	ABC_ID	CRIT_I
2	Description	Plant	Flag Material for Deletion at Plant Level	ABC Indicator	Indica	
3	DataType	String	String	String	String	String
4	Length	4	1	1	1	1
5			2001		A	
6			2002		A	
7			2001		B	

"No" does not need to be a sequential number, so you can register it using the slip number or item code.

4. SRC_Log

-> Worksheet created after registration processing. Contains the processing result log.

	A	B	C	D
1	DateTime	Info	SAP Message	
2	2019-09-20 09:22:41	I	Field=ID-DE LogMessage	
3	2019-09-20 09:22:41	W	Field=ID-DE LogMessage	
4	2019-09-20 09:22:41	I	Field=ID-DE LogMessage	
5	2019-09-20 09:22:41	W	Field=ID-DE LogMessage	
6	2019-09-20 09:22:41	I	Field=ID-DE LogMessage	
7	2019-09-20 09:22:41	W	Field=ID-DE LogMessage	
8	2019-09-20 09:22:41	W	Field=ID-DE LogMessage	
	SRC_Log	SRC_Contents	BAPI_FD_CR	

3. Notes

- Do not start Excel when executing.
- The Workflow Template saved in the "SRC_Common" folder in "Common Reusable Components" of UiPath Go! Must be saved together when using UiPath Reusable Component for SAP ERP.

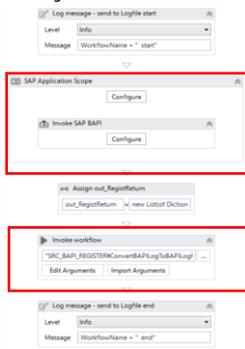
	A	B	C	D
1	DateTime	Info	SAP Message	
2	2019-09-20 09:22:41	I	Field=ID-DE LogMessage	
3	2019-09-20 09:22:41	W	Field=ID-DE LogMessage	
4	2019-09-20 09:22:41	I	Field=ID-DE LogMessage	
5	2019-09-20 09:22:41	W	Field=ID-DE LogMessage	
6	2019-09-20 09:22:41	I	Field=ID-DE LogMessage	
7	2019-09-20 09:22:41	W	Field=ID-DE LogMessage	
8	2019-09-20 09:22:41	W	Field=ID-DE LogMessage	
	SRC_Log	SRC_Contents	BAPI_FD_CR	

[Data registration using BAPI Workflow configuration]

1. Overview

The workflow when registering data using BAPI is configured with the following pattern.

2. Basic configuration



"Invoke SAP BAPI" is placed in "SAP Application Scope".
 Access SAP with "SAP Application Scope".
 Execute BAPI with "Invoke SAP BAPI".
 In Workflow provided by this Component, all items in the BAPI are set in our SAP environment.
 Depending on the SAP environment, the items may differ even for the same BAPI.
 Please modify the "Invoke SAP BAPI" Configure and the Input File.

Since the format of the result varies depending on each BAPI,
 "ConvertBAPILogToBAPILogFormat.xml" incorporates processing to support the expected pattern.

3. Additional processing

NO	Workflow Name	Feature	Additional processing			
1	SRC_BAPI_MATERIAL_SAVEDATA_v2.2_E	Register Material Master using "BAPI_MATERIAL_SAVEDATA".				
2	SRC_BAPI_BUPA_CREATE_FROM_DATA_v2.2_E	Register Business Partner Number(BP role is "000000") and common data using "BAPI_BUPA_CREATE_FROM_DATA".		3		
3	SRC_BAPI_BUPA_BANKDETAIL_ADD_v2.2_E	Add to bank info (BP role is "000000") using "BAPI_BUPA_BANKDETAIL_ADD".		3		
4	SRC_BAPI_BANK_CREATE_v2.2_E	Register Bank Master using "BAPI_BANK_CREATE".				5
5	SRC_BAPI_PROFITCENTER_CREATE_v2.2_E	Register Profit Center Master using "BAPI_PROFITCENTER_CREATE".				
6	SRC_BAPI_COSTCENTER_CREATEMULTIPLE_v2.2_E	Register Cost Center Master using "BAPI_COSTCENTER_CREATEMULTIPLE".		3		
7	SRC_BAPI_FIXEDASSET_CREATE1_v2.2_E	Register Fixed Asset Center using "BAPI_FIXEDASSET_CREATE1".				
8	SRC_BAPI_COSTCENTERGROUP_CREATE_v2.2_E	Register Cost Center Group using "BAPI_COSTCENTERGROUP_CREATE".				5
9	SRC_BAPI_PROFITCENTERGRP_CREATE_v2.2_E	Register Profit Center Group using "BAPI_PROFITCENTERGRP_CREATE".				5
10	SRC_BAPI_BOM_UPLOAD_SAVE_v2.2_E	Register Material BOM using "BAPI_BOM_UPLOAD_SAVE".				5
20	SRC_BAPI_PROJECTDEF_CREATE_v2.2_E	Register Project using "BAPI_PROJECTDEF_CREATE".				5
21	SRC_BAPI_WBS_CREATE_v2.2_E	<p>This function is registered WBS by executing the following 4 BAPIs. After the 4 BAPIs are registered successfully, the processing is completed using "BAPI_TRANSACTION_COMMIT". ("BAPI_TRANSACTION_COMMIT" is provided in "SRC_BAPIv2.2_REGISTER") If the error occurs in the following any 4 BAPIs, it is possible to occur in the short dump.</p> <p>"BAPI_PS_INITIALIZATION" (Initialization) "BAPI_BUS2054_CREATE_MULT" (WBS registration) "BAPI_BUS2054_SET_STATUS" (WBS status change) "BAPI_PS_PRECOMMIT" (PS precommit process)</p>				
22	SRC_BAPI_NETWORK_MAINTAIN_v2.2_E	<p>This function is registered Network by executing the following 4 BAPIs. After the 4 BAPIs are registered successfully, the processing is completed using "BAPI_TRANSACTION_COMMIT". ("BAPI_TRANSACTION_COMMIT" is provided in "SRC_BAPIv2.2_REGISTER") If the error occurs in the following any 4 BAPIs, it is possible to occur in the short dump.</p> <p>"BAPI_PS_INITIALIZATION" (Initialization) "BAPI_BUS2002_CREATE" (Network registration) "BAPI_BUS2002_ACT_CREATE_MULT" (Change Network) "BAPI_PS_PRECOMMIT" (PS precommit process)</p>				
23	SRC_BAPI_PROJECT_MAINTAIN_v2.2_E	Register and change the project WBS / Network using "BAPI_PROJECT_MAINTAIN".				4 5

Additional processing : Pattern [1]

If the document is registered with reference to other documents/details, there is a possibility to lock BAPI according to processing speed.
 Therefore, about BAPI which is [1] in "Additional processing" of the above list,
 In addition to the basic configuration, it is configured to execute the process repeatedly (up to 5 times) until the lock is released.
 (It is possible to set "Delay Time" in CheckRetryCase.xml in SRC_BAPIv2.2_REGISTER included in SRC Common Components.
 If it the error occurred, wait for several seconds and retry BAPI.)

Additional processing : Pattern [2]

To register using the function module that possible to updated externally, it is necessary to set pre-processing and post-processing according to the environment.

Example : LE_DELIVERY_UPDATE

In the same function module, picking and goods issue confirmation processing is completed.
 Get the exception message when an error occurs SAP. (If the message does not occurred, the processing is set Successful completion.)

- In our environment, Additional processing: pattern [2] is set because of the data inconsistency.
 When using this BAPI, please add appropriate logic according to each environment so that data inconsistency does not occur.
- Picking quantity can exceed shipping quantity to process
 -> This cause is the method of the reorganization of the decimal point when creating Excel worksheet, and setting decimal system of the user who executes BAPI.
 Even if data is entered correctly, the error might occur. Be sure to add settings that are appropriate for your environment.
 (It is created so that the error will occur if you do not add and use it.)
 - Multiple shipment confirmation documents are generated for one shipment and one picking
 -> When executing the commit process after the test, multiple shipment confirmation documents could be registered.
 Therefore, BAPI_TRANSACTION_COMMIT is always executed as a countermeasure.
 - VBELN_VL (shipment document) of the same worksheet as VBELN (continuation document for sales management) of VBPOK_TAB is completed process even if the other Number and missing N
 -> Since no message is output from SAP, this function ends normally.
 However, it has been confirmed that the goods issue confirmation cannot be completed for the goods issue document and status such as archived is entered.
 When using this BAPI, please use it after adding the necessary check logic when importing input data.

Additional processing : Pattern [3]

When the process ends normally, the processing result is a blank BAPI.
 A configuration is added to display the required processing results for each type of RETURN.

Additional processing : Pattern [4]

RETURN is a BAPI that does not output the required results such as the document number, although the processing result is entered, not blank.
 An item to output necessary information to Log for each BAPI has been added.

Additional processing : Pattern [5]

When the process is completed normally, the process result message is "000".
 A fixed message is added and output to the log so that it can be determined that the process ended normally.

[Data registration using GUI]

1. Overview

No.	Workflow Name	Feature
9	SRC_MAT_MSTR_CRT_E	Register Material Master from the screen of Transaction Code:MM01
10	SRC_VND_MSTR_CRT_E	Register Vendor Master from the screen of Transaction Code: XK01
11	SRC_CST_MSTR_CRT_E	Register Customer Master from the screen of Transaction Code:XD01
12	SRC_CRE_MSTR_UPDT_E	Change Customer Credit Management from the screen of Transaction Code:FD32
13	SRC_INFO_REC_CRT_E	Register Purchasing Info Master from the screen of Transaction Code:ME11
14	SRC_ACC_MSTR_CRT_E	Register Accounting Code Master from the screen of Transaction Code:FS00
15	SRC_LST_UPDT_E	Register Maintain Source List from the screen Transaction Code:ME01
16	SRC_QOT_ARRGMT_UPDT_E	Register Maintain Quota Argument from the screen Transaction Code:MEQ1

2. About the usage

Please check the items below before using this Workflow Template.

- This component is tested in the following environment.
 - UiPath Studio 18.4.4
 - SAP ERP(6.0)
 - SAP GUI for Windows Release 750
- The Workflow Template provided in the "Common Reusable Components" of UiPath Go! Must be saved together when using the UiPath Reusable Component for SAP ERP. (Please also refer to the explanatory material "UiPath Reusable Component-SRC for SAP ERP About usage")
- Do not start Excel when executing.
- Please refer to "Common Reusable Components" of UiPath Go! in how to create data files for STEP1. In this Component, based on the Input File created using "SRC_GUI_SelectorDataBuilder_E" provided by "Common Reusable Components" of UiPath Go!, input file is created with the necessary added functions.
- Code display are required for items in the drop-down list. Select "Show keys within dropdown list" in GUI Interactive Design settings.

3. Function Image Overview

We provide the workflow template, that load the Input File prepared in STEP1 to register data to SAP ERP.

* Function overview

STEP1

Move to the screen where data will be registered and execute "SRC_GUI_SelectorDataBuilder"

Click on the SAP fields where data will be registered. After click all necessary fields, finish the process and the Input File and Selector File for data registration will be created.

Input File

A	B	C
1	Run Date	1808/2018
2	Run Date	1808/2018
3	Run Date	1808/2018
4	Run Date	1808/2018

Selector File

A	B	C
1	Run Date	1808/2018
2	Run Date	1808/2018
3	Run Date	1808/2018
4	Run Date	1808/2018

STEP2

According to each environment, get the correspondent Resource information as selectors used for screen transition and data registration, used together with the Input File and Selector File prepared in the STEP1 and create a workflow that can register data.

Master Data Create Componentsでは、JOB登録用のWorkflow Templateを that can be used as reference.

Input File

A	B	C
1	Run Date	1808/2018
2	Run Date	1808/2018
3	Run Date	1808/2018
4	Run Date	1808/2018

Selector File

A	B	C
1	Run Date	1808/2018
2	Run Date	1808/2018
3	Run Date	1808/2018
4	Run Date	1808/2018

Resource File

A	B	C
1	Run Date	1808/2018
2	Run Date	1808/2018
3	Run Date	1808/2018
4	Run Date	1808/2018

* About Folder Structure

Common Components

- Error: Folder for saving the screen shot to be acquired if an error occurs during process execution.
- Log: Folder for saving execution logs.

Master Data Components

- Input: Input Data file to be registered in SAP.
- Argument: This file is for managing arguments required screen execution.
- Resource: This file is for managing object information (selector) for operating SAP screens.
- Selector: This file is for managing object information (selector) of input fields. Used in conjunction with Input File.
- SRC_MAT_MSTR_CRT: This xaml file is for registration processing.

Data Folder
Contains files that may be changed by person responsible for data entry.
Input File : Data Input File for SAP data registration.
Argument File : This file is used to manage information such as SAP login information, Input File, and save destination of the execution xaml file.

Config Folder
Contains files that manage object information.
(Manages information that does not need to be changed every time data is entered)
Resource File : File used to manage button object (selector) information required for screen transition.
Selector File : File used to manage input item object (selector) information that is related to Input File.

About Xaml File
The xaml file to which "SRC" is assigned, becomes Main.xaml for execution.

[Data registration using GUI]

*** About Input File**

Within this Components, the main functions that have been added based on the Input File created using "SRC_GUI_SelectorDataBuilder_E" provided by "Common Reusable Components" of UiPath Go! are as follows.

1. The leftmost worksheet of Input File (exclude SRC_Log) is the worksheet for inputting header information (Primary key information) of the data to be registered. Enter the primary key to identify the header unit on "No" in column A.

Ex.) Transaction Code : MM01 Material Master Create (SRC_MAT_MSTR_CRT.xml)

Input File

No	Material	Industry Sector	Material type
1	TG217	1	ZFER
2	TG218	1	ZFER
3	TG219	1	ZFER

Enter in column A "No" (any character string such as sequential number).

2. About fields in Spread Sheet format (field that can register multiple item information for one header information) When registration of "No" = 1 in row A is executed, registration will be done in the order of "SeqNo" = 1 -> 2 in row B.

Input File

No	SeqNo	Country	Country Name	Tax category	Tax category Name	Tax classification	Tax classification Description
1	1	JP	#SKIP#	IMWST	#SKIP#	1	#SKIP#

3. Enter blank fields

If the display item is leave "blank", blank will be entered even if the item has an initial value. If you want to keep the default value entered on the SAP side, enter "#SKIP#" keyword to skip the item without change it. (For items that are not necessary for the entire data, delete the Input File and Selector File columns.)

Input File

No	*Descr.	*Base Unit	*Material	Old mater	Ext. Matl
Bd1	<wnd app-><wnd app-><wnd app-><wnd app-><wnd app->				
1	Test		#SKIP#	123456	

4. Worksheet transition

Workflow Template is set to load data from the leftmost worksheet of Input File.

For each master, after transaction code is entered, the leftmost worksheet (exclude SRC_Log) is created on the premise that it is the first screen displayed. Depending on the screen, there are screens that require complex transitions, so check the Workflow Template of each master.

*** About Screen Transition**

Screen transition and data input items are selected using "Resource File" and "Selector File" saved in the Config folder. (If you want to add process steps or input items to this Workflow Template, make changes on this worksheets.)

Save object information such as buttons and tabs that require screen transitions to the Resource File.

Resource File : "BaseSelectors" Worksheet

Name	Value	Description
WIND_AppMain	<wnd app->saplogon.exe />	SAP GUI Application main selector
WIND_Main	<wnd app->saplogon.exe cts=SAP_FRONTEND_SESSION title= />	SAP GUI Session main window selector
WIND_TransactionCode	<wnd app->saplogon.exe cts=SAP_FRONTEND_SESSION title= />	Transaction code input field selector
WIND_StatusIndicator	<wnd app->saplogon.exe cts=SAP_FRONTEND_SESSION title= />	Footer Status bar selector
WIND_StatusImage	<wnd app->saplogon.exe cts=SAP_FRONTEND_SESSION title= />	Footer Status bar selector
BTN_Back	<wnd app->saplogon.exe cts=SAP_FRONTEND_SESSION title= />	Back button selector
BasicData1	<wnd app->saplogon.exe cts=SAP_FRONTEND_SESSION title= />	BasicData1 view item menu selector
BasicData2	<wnd app->saplogon.exe cts=SAP_FRONTEND_SESSION title= />	BasicData2 view item menu selector
AdditionalData_Descriptions	<wnd app->saplogon.exe cts=SAP_FRONTEND_SESSION title= />	AdditionalData_Descriptions menu selector
AdditionalData_UnitOfMeasure	<wnd app->saplogon.exe cts=SAP_FRONTEND_SESSION title= />	AdditionalData_UnitOfMeasure menu selector
SalesOrg_GeneralData	<wnd app->saplogon.exe cts=SAP_FRONTEND_SESSION title= />	SalesOrg_GeneralData view item menu selector

Selector File

ItemName	Selector
Basic data 1	<wnd app->saplogon.exe cts=SAP_FRONTEND_SESSION title= />
Base Unit of Measure	<wnd app->saplogon.exe cts=SAP_FRONTEND_SESSION title= />
Material number	<wnd app->saplogon.exe cts=SAP_FRONTEND_SESSION title= />
Ext. Matl Group	<wnd app->saplogon.exe cts=SAP_FRONTEND_SESSION title= />

Must match to have the same name as each item in Input File.

No	SeqNo	Descr.	Base Unit of Measure	Material Group	Old material number
1	1	GUI Input Test for TG201	PC	01	1234567
2	1	GUI Input Test for TG202	PC	01	1234567
3	1	GUI Input Test for TG203	PC	01	1234567

