

[SAP Table]Create Custom Function Module

Last updated by | Veena Pachauri | Mar 8, 2023 at 11:23 PM PST

For SAP table, currently we provided an property called customRfcReadTableFunctionModule in the copy source to allow customer to leverage their own logic to process the data.

<https://docs.microsoft.com/en-us/azure/data-factory/connector-sap-table#copy-activity-properties> 

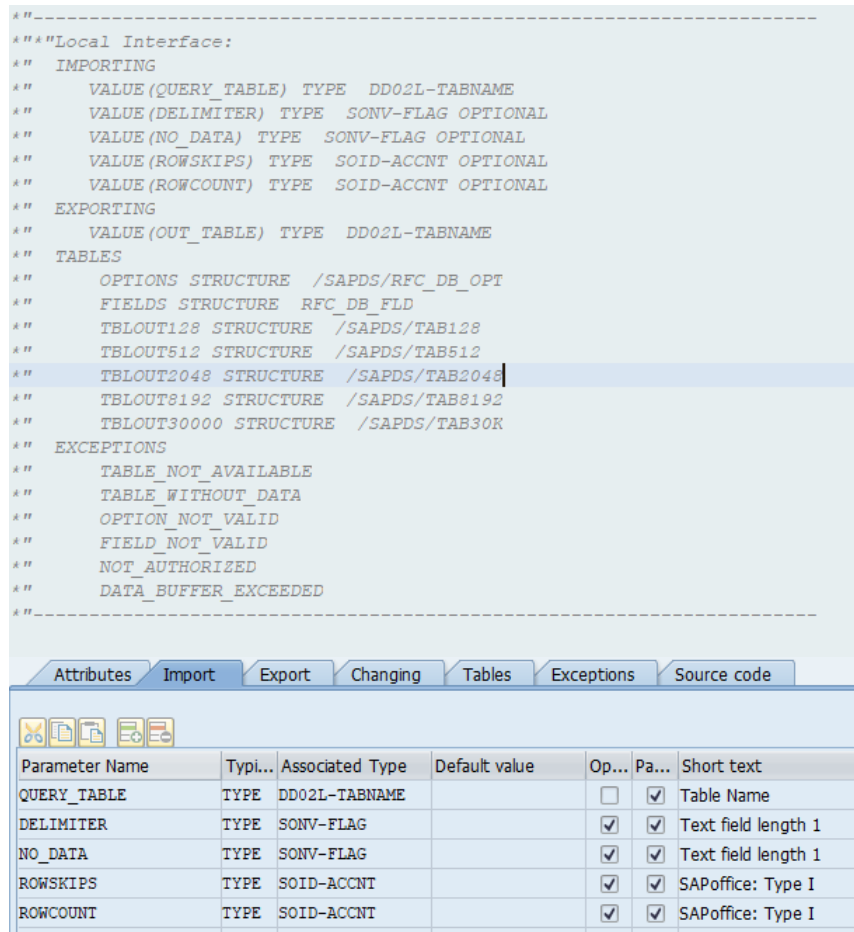
As a quick guidance on the requirement of the custom function module, here are some hard requirement:

Definition:

```

A **-----
A ** Local Interface:
A ** IMPORTING
A **   VALUE(QUERY_TABLE) TYPE  DD02L-TABNAME
A **   VALUE(DELIMITER) TYPE   SONV-FLAG OPTIONAL
A **   VALUE(NO_DATA) TYPE     SONV-FLAG OPTIONAL
A **   VALUE(ROWSKIPS) TYPE    SOID-ACCNT OPTIONAL
A **   VALUE(ROWCOUNT) TYPE  SOID-ACCNT OPTIONAL
A ** EXPORTING
A **   VALUE(OUT_TABLE) TYPE   DD02L-TABNAME
A ** TABLES
A **   OPTIONS STRUCTURE  /SAPDS/RFC_DB_OPT
A **   FIELDS STRUCTURE  RFC_DB_FLD
A **   TBLOUT128 STRUCTURE /SAPDS/TAB128
A **   TBLOUT512 STRUCTURE /SAPDS/TAB512
A **   TBLOUT2048 STRUCTURE /SAPDS/TAB2048
A **   TBLOUT8192 STRUCTURE /SAPDS/TAB8192
A **   TBLOUT30000 STRUCTURE /SAPDS/TAB30K
A ** EXCEPTIONS
A **   TABLE_NOT_AVAILABLE
A **   TABLE_WITHOUT_DATA
A **   OPTION_NOT_VALID
A **   FIELD_NOT_VALID
A **   NOT_AUTHORIZED
A **   DATA_BUFFER_EXCEEDED
A **-----

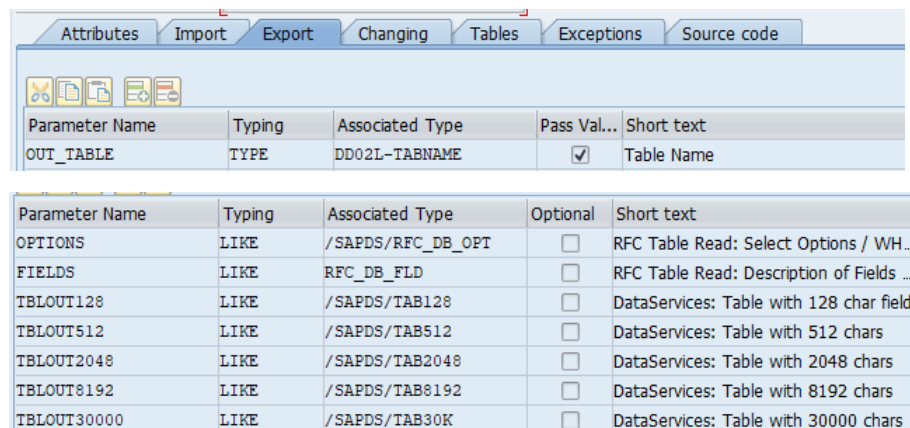
```



The screenshot shows the SAP ABAP IDE with the 'Local Interface' definition. Below the code, the 'Tables' tab in the Properties window is active, displaying a list of tables and their associated types.

Parameter Name	Typi...	Associated Type	Default value	Op...	Pa...	Short text
QUERY_TABLE	TYPE	DD02L-TABNAME		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Table Name
DELIMITER	TYPE	SONV-FLAG		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Text field length 1
NO_DATA	TYPE	SONV-FLAG		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Text field length 1
ROWSKIPS	TYPE	SOID-ACCNT		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	SAPoffice: Type I
ROWCOUNT	TYPE	SOID-ACCNT		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	SAPoffice: Type I

Export data into one of the tables



The screenshot shows the 'Export' tab in the Properties window, displaying a list of tables and their associated types.





Parameter Name	Typing	Associated Type	Pass Val...	Short text
OUT_TABLE	TYPE	DD02L-TABNAME	<input checked="" type="checkbox"/>	Table Name

Parameter Name	Typing	Associated Type	Optional	Short text
OPTIONS	LIKE	/SAPDS/RFC_DB_OPT	<input type="checkbox"/>	RFC Table Read: Select Options / WH...
FIELDS	LIKE	RFC_DB_FLD	<input type="checkbox"/>	RFC Table Read: Description of Fields ...
TBLOUT128	LIKE	/SAPDS/TAB128	<input type="checkbox"/>	DataService: Table with 128 char field
TBLOUT512	LIKE	/SAPDS/TAB512	<input type="checkbox"/>	DataService: Table with 512 chars
TBLOUT2048	LIKE	/SAPDS/TAB2048	<input type="checkbox"/>	DataService: Table with 2048 chars
TBLOUT8192	LIKE	/SAPDS/TAB8192	<input type="checkbox"/>	DataService: Table with 8192 chars
TBLOUT30000	LIKE	/SAPDS/TAB30K	<input type="checkbox"/>	DataService: Table with 30000 chars

The flow of SAP table connector work with custom function module will be:

1. Build connection with SAP server via SAP Nco
2. Invoke custom Function Module with the parameters set:

- a. QUERY_TABLE : the table name you set in the ADF SAP Table dataset; b. Delimiter: the delimiter you set in the ADF SAP TBLE SOURCE; c. ROWCOUNT/Option/Fields : the rowcount/Aggregated Option/Fields you set in the ADF Table source;
- 3. Get the result and parse in the way as below:
 - a. Parse the values in the Fields table to get the schemas

Tables	Value
OPTIONS	 0 Entries
Result:	 0 Entries
FIELDS	 0 Entries
Result:	 31 Entries

- b. Get the value of the output table to see which table contains the values

Export parameters	Value
OUT_TABLE	TBLOUT512

- c. Get the values in the OUT_TABLE to get the data and parse then write into the sink.