SAP BW to Bucket

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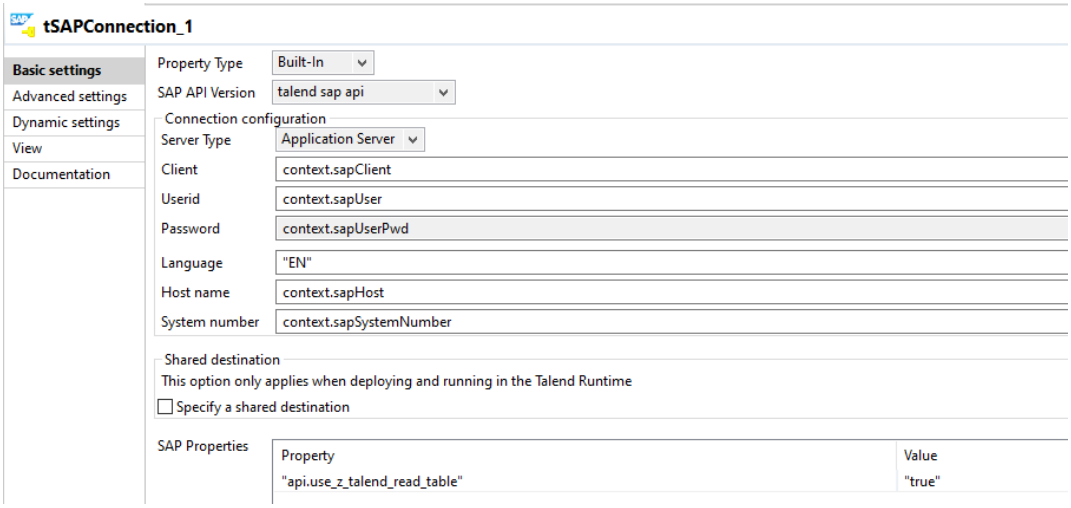
SAP connection

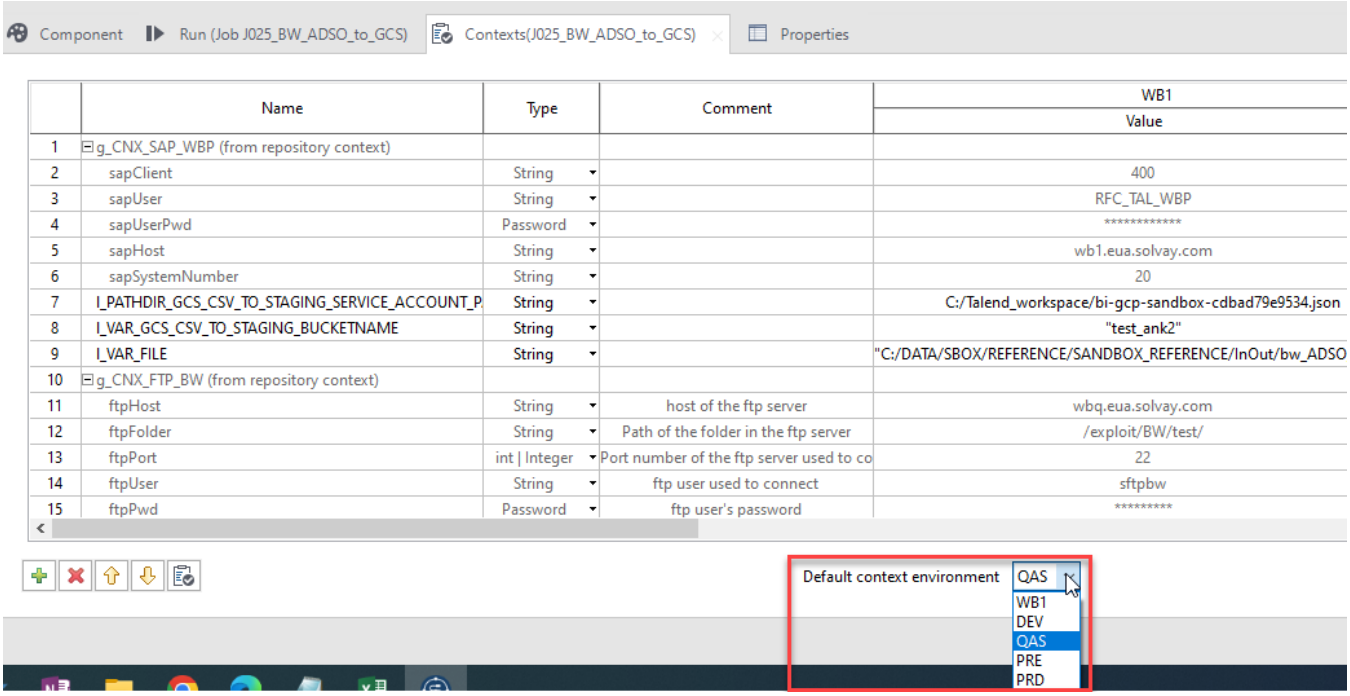
We need to fill following parameter in order to connect BW on component tSAPConnection. Default context is already created for all BW systems.



The user to connect must be RFC_TAL_WBP, which is the RFC user for Talend (DE team). It already save in global context g_CNX_SAP_WBP

Variable	SBX	DEV	QAS	PRE	PRD
sapClient	400	110	400	400	400
sapUser	RFC_TAL_WBP	RFC_TAL_WBP	RFC_TAL_WBP	RFC_TAL_WBP	RFC_TAL_WBP
sapHost	wb1.eua.solvay.com	wbd.eua.solvay.com	wbq.eua.solvay.com	wbv.eua.solvay.com	wbp.eua.solvay.com
sapSystemNumber	20	48	32	85	00
sapUserPwd	get it from Keepass				

To run the test, DE can select the system that you want to run, it will automatically connect to that system and get the result



	Name	Type	Comment	WB1 Value
1	g_CNX_SAP_WBP (from repository context)			
2	sapClient	String		400
3	sapUser	String		RFC_TAL_WBP
4	sapUserPwd	Password		**********
5	sapHost	String		wb1.eua.solvay.com
6	sapSystemNumber	String		20
7	I_PATHDIR_GCS_CSV_TO_STAGING_SERVICE_ACCOUNT_P	String		C:/Talend_workspace/bi-gcp-sandbox-cdbad79e9534.json
8	I_VAR_GCS_CSV_TO_STAGING_BUCKETNAME	String		"test_ank2"
9	I_VAR_FILE	String		"C:/DATA/SBOX/REFERENCE/SANDBOX_REFERENCE/InOut/bw_ADSO
10	g_CNX_FTP_BW (from repository context)			
11	ftpHost	String	host of the ftp server	wbq.eua.solvay.com
12	ftpFolder	String	Path of the folder in the ftp server	/exploit/BW/test/
13	ftpPort	int | Integer	Port number of the ftp server used to co	22
14	ftpUser	String	ftp user used to connect	sftpbw
15	ftpPwd	Password	ftp user's password	*********

FTP Connection

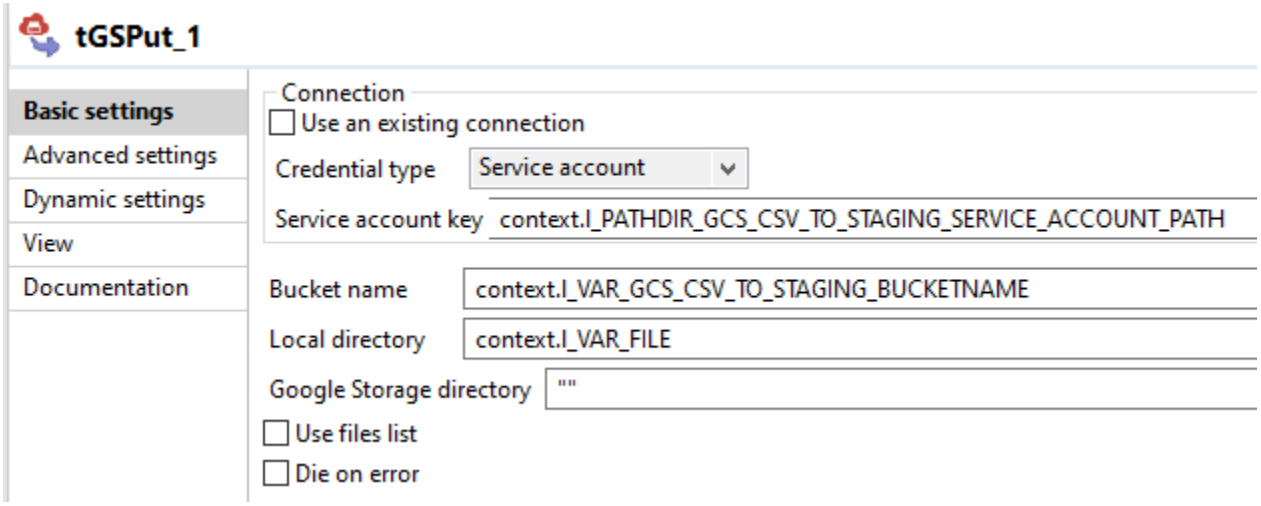
It is required when FTP-Batch is used. This is require when we load a huge volume of data (more than 10,000 records), it is required to split the data and temporary save to the folder. To connect to RFC, we can use QAS folder to keep the file

It also already save in global context g_CNX_FTP_BW

Variable	Value
ftpHost	wbq.eua.solvay.com
ftpFolder	/exploit/BW/test
ftpPort	22
ftpUser	sftpbw
ftpPwd	get it from Keepass

This function is available only some component

GCP Connection



Variable	Meaning
I_VAR_GCS_CSV_TO_STAGING_BUCKETNAME	Bucket Name in GCS
I_VAR_FOLDER	Local path
I_VAR_FILE	Local filename
I_VAR_LIMITROW	Limit number of row per file. Required only tSAPTableInput
I_PATHDIR_GCS_CSV_TO_STAGING_SERVICE_ACCOUNT_PATH	Location path and file of service account (JSON file)

More detail how to get GCP service account

Component to Connect BW

OBJECT	Talend component	COMMENT
SAP Tables InfoObject (master data)	tSAPTableInput	Delta No Filter Yes FTP-Batch Yes
DSO (old model)	tSAPDSOInput	Delta No Filter Yes FTP-Batch Yes
InfoCube MultiProvider (old model)	tSAPCubeInput	Delta No Filter Yes FTP-Batch Yes
ADSO Composite Provider	tSAPADSOInput	Delta Yes Filter Yes FTP-Batch No
BW Queries	tHttpRequest is used for Xtract	The best solution for query is Xtract and use tHttpRequest

1. SAP Table

It is the same as ECC SAP Table just to connect to BW

2 InfoObject (Master data)

Although Talend has the component to get data from infoObject but it is better to get it from table since the tSAPInfoobjectInput can't have filter and there is no FTP batch or load by starting row like tSAPTableInput. Therefore, it is better to use tSAPTableInput

3 DSO

4. InfoCube

5. ADSO

6. MultiProvider

7. Composite Provider

8. BW Query

There are 3 main servers that we need to setup

8.1 BW Server

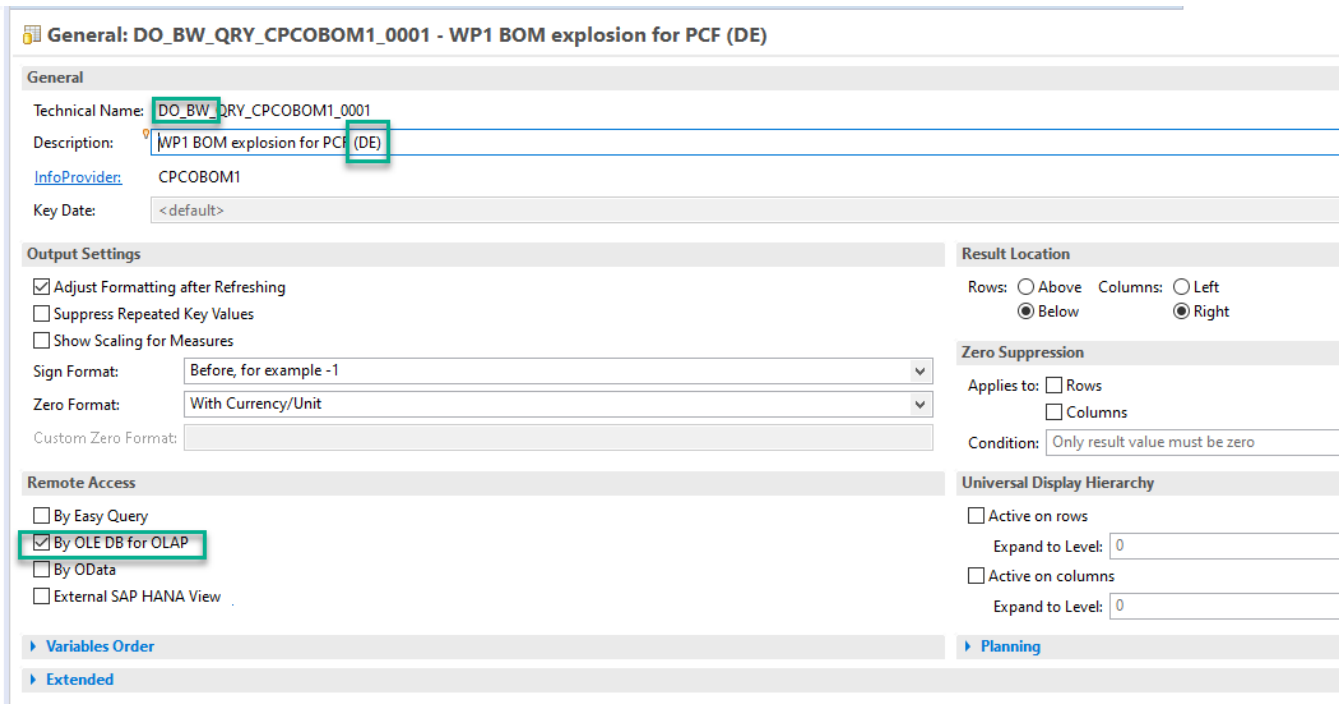
The query that will available on Xtract program need to mark flag Remote Access “By OLE DB for OLAP”

The query that mark this flag should have the technical name starting with

QV_ for Qlik

DO_ for Talend that load to GCP for the new concept of data ocean

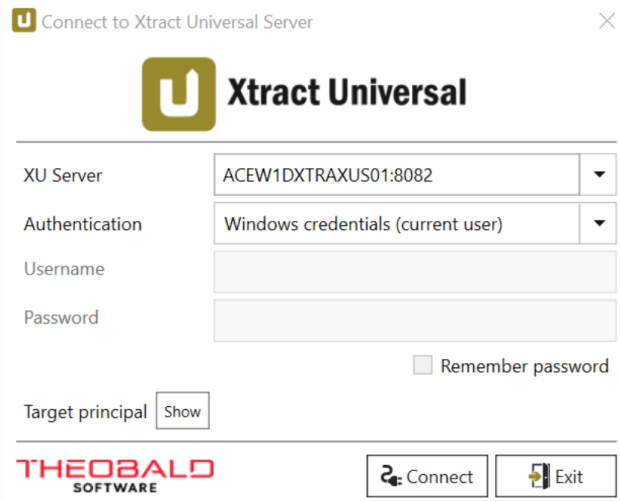
The flag must NOT be flagged in the cored query for BW, which name starting with BW_QRY_xxxx



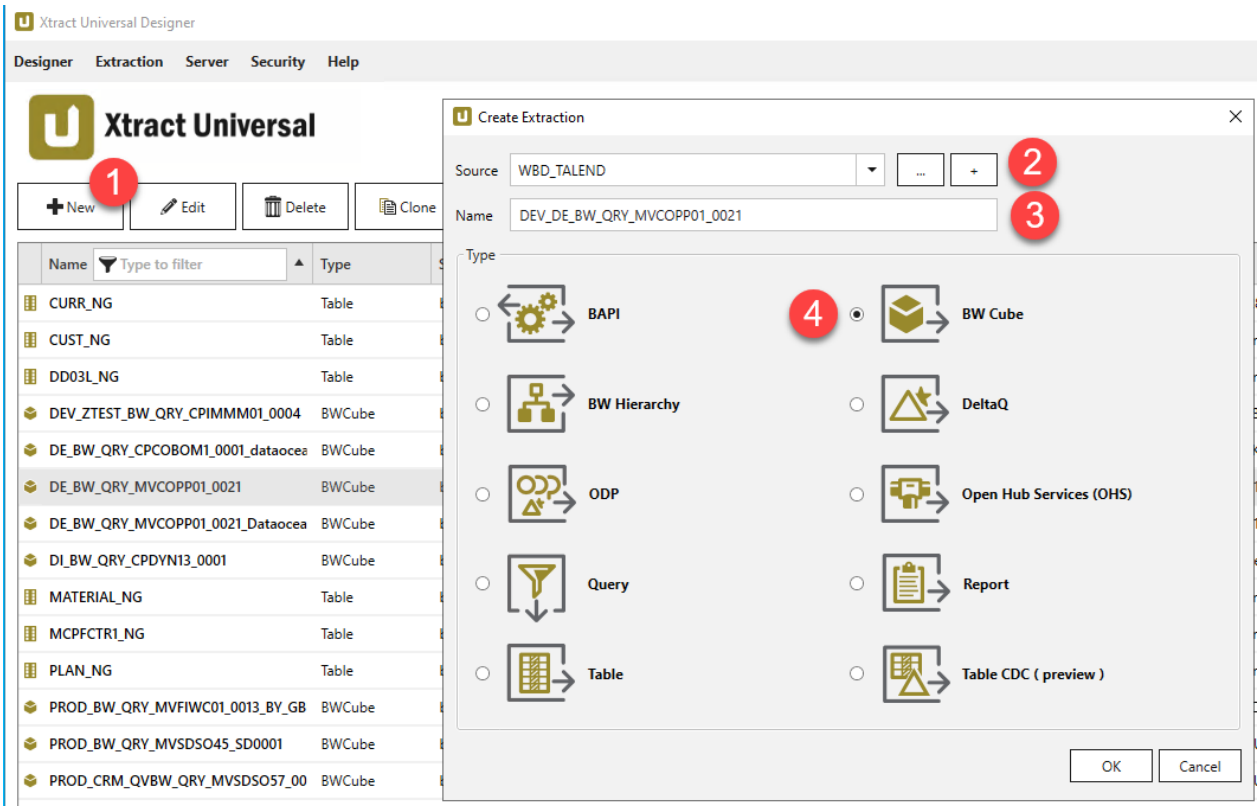
It has to be done by BW developer and transport from WBD to WBP

8.2 Xtract

1. Open Xtract Designer in a virtual machine having this application like bgsoa-wks116. Connect to the Xtract sever (XU server : ACEW1DXTRAXUS01: 8082)



2. Create a job in Xtract (No need to create connection since all connection should have been already created so you will only have to decide which one to use)



2.1 Click on New (or Edit then go to 3.5)

2.2 Select BW server. DE should use connection which use user **RFC_TAL_WBP**, which is dedicate for Talend and DE team not sure the one for Qlik

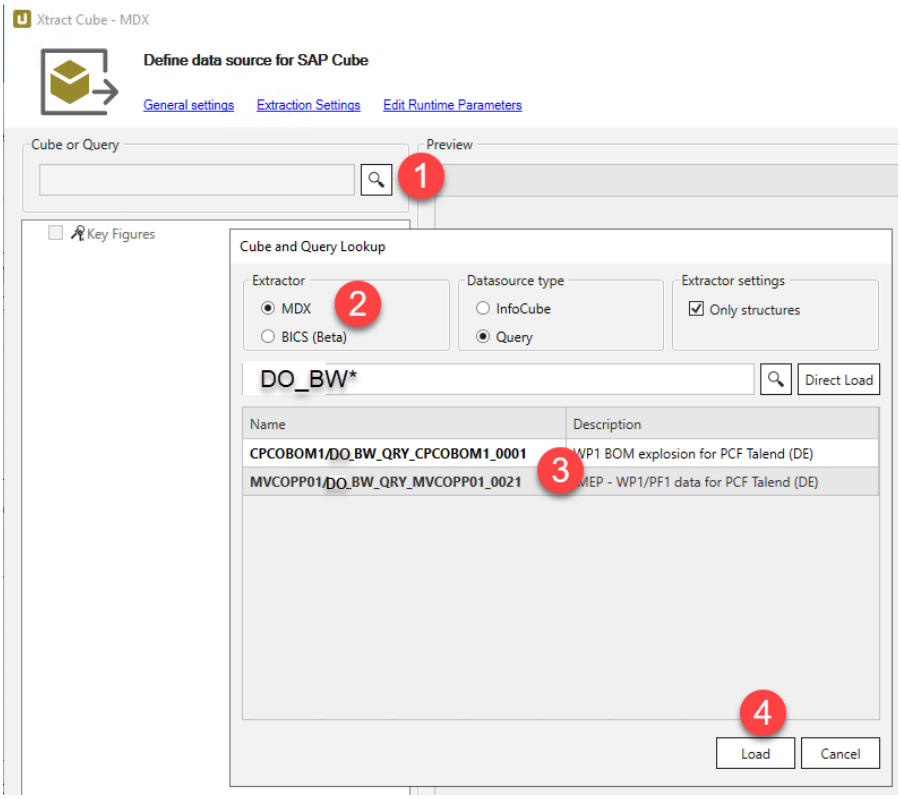
2.3 Enter the job name. The **naming convention = TALEND_<Landscape>_<QueryName>** such as TALEND_PRD_DO_BW_QRY_XXXX (Query name to connect via Talend must starting with DO (data ocean), therefore, it can differentiate with Qlik query that have starting name with QV)

<Landscape>

- PRD = Production
- PRE = Pre-production
- QAS = Quality
- DEV = Development

2.4 To connect with BW query, it is required to select BW Cube

3. Define data source



For Xtract jobs that will be used by Talend please use WBD_TALEND, WBQ_TALEND, WBP_TALEND. Avoid using *bw_qlikview*.

3.1 Click on search and

3.2 Select MDX (or BICS) and enter the Query name to search

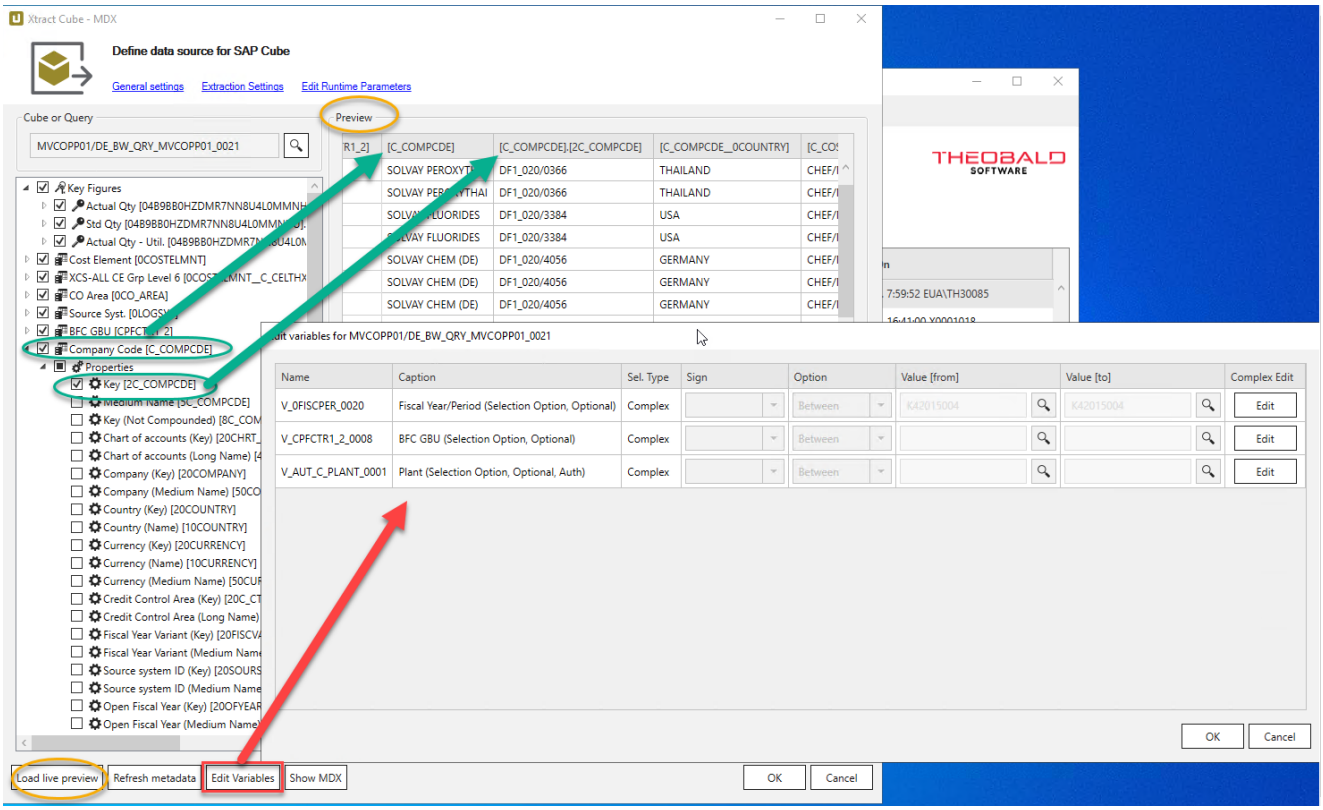
MDX versus BICS (beta)

	MDX	BICS (beta)
Syntax in lookup for BEx Queries	`[tech. name of InfoPovider]/[tech. name of BEx Query]` example: 0SD_C03/0SD_C03_Q0018	`[tech. name of BEx Query]` example: 0SD_C03_Q0018
Syntax in lookup for InfoProivders	`$[tech. name of InfoProvoider]` example: $0SD_C03	`[tech. name of InfoProvider]` example: 0SD_C03
Wildcards in lookup	supported example: *0SD_C03_Q0018 instead of 0SD_C03/0SD_C03_Q0018	not required and therefore not supported
Supported InfoProviders	InfoCubes, Multiproviders, Composite Providers	InfoCubes, MuliProviders, Composite Providers, DSOs
Setting in BEx Query	Setting “Allow External Access to this Query” is required. If not set, BEx Query won’t appear in the lookup, see Allow External Access to BW Queries.	not required

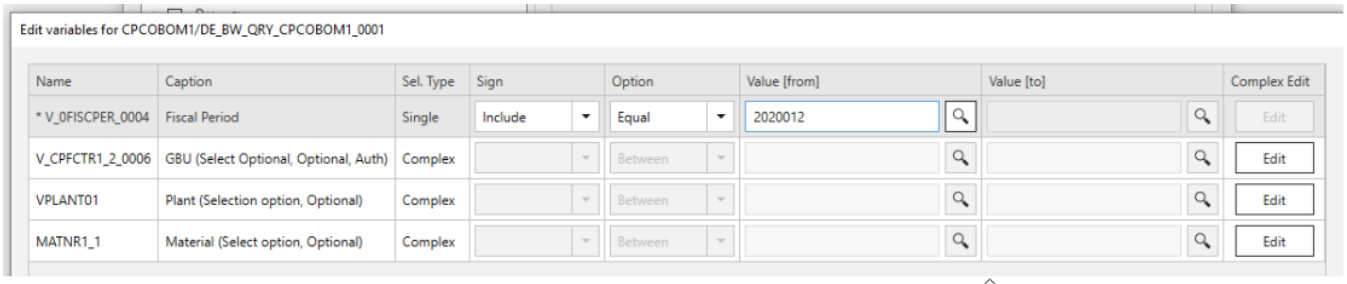
3.3 Select the query

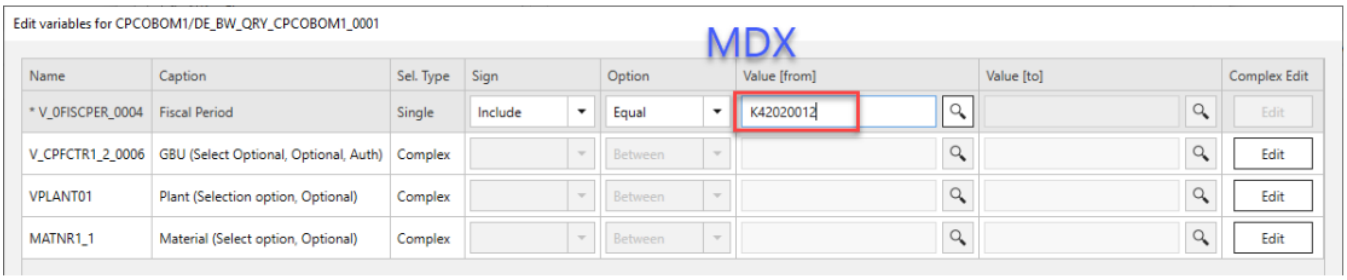
3.4 Click on Load

3.5 It will get Metadata of the query. Select the characteristics and key figures that required. Default value at the parent node is the text. If we need the key of the characteristic, we need to select at the properties



Edit the variable to filter if required. Be careful that MDX and BICS input can be different in some fields like date format

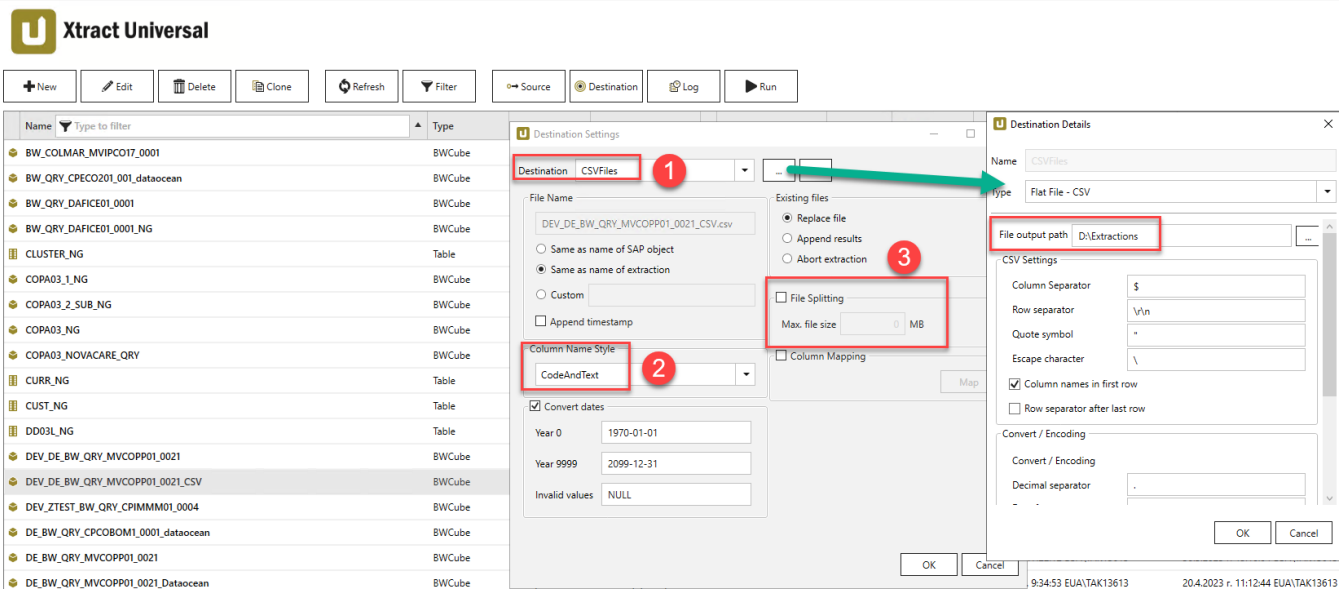




⚠️ In case you can't find the query in MDX, then select BICS(Beta). BICS will not possible to select key and text for the characteristics on this version

Click on "Load live preview" to check the setup is OK

3.6 Click on Destination to configure output and header of the column.



3.6.1 The destination is **http-csv** (this will work with talend component tFile**Output**Delimited) The result from BW query will go to Talend directly.

The destination is **CSVFiles** (this will work with talend component tFile**Input**Delimited) **Recommended option**. This option will load data from BW query and save to Xtract server.

3.6.2 The column name should be "Code and Text". We need code to create a field in google big query and text to explain the DA and DE what they are

Column by default will be "Code"

	A	B	C	D
1	[0COSTELMNT]	[0COSTELMNT__C_CELTHX5]	[0CO_AREA]	[0LOGSYS]
2				
3				

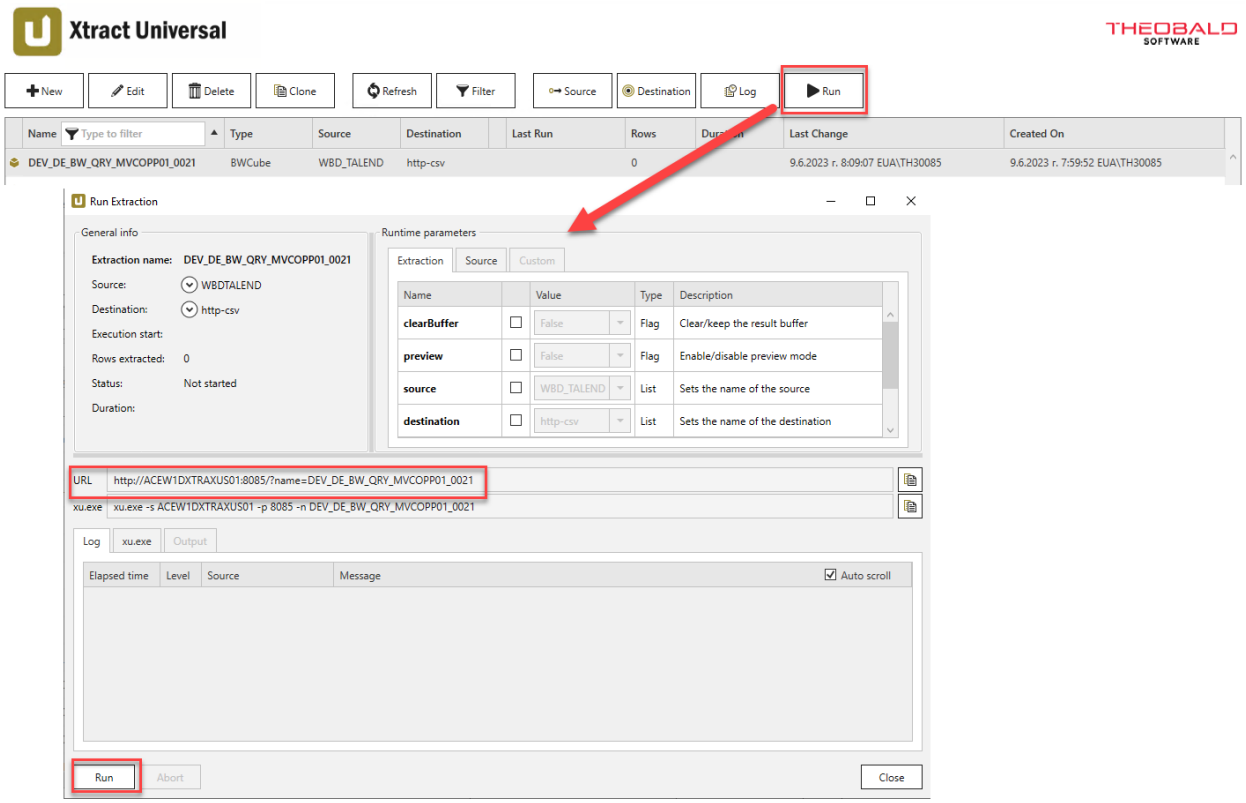
"Code and Text" will be:

A	B	C	D
[0COSTELMNT]_Cost Element	[0COSTELMNT__C_CELTHX5]_XCS-ALL CE Grp Level 6	[0CO_AREA]_CO Area	[0LOGSYS]_Source Syst.

The field name in BQ should be the one in []

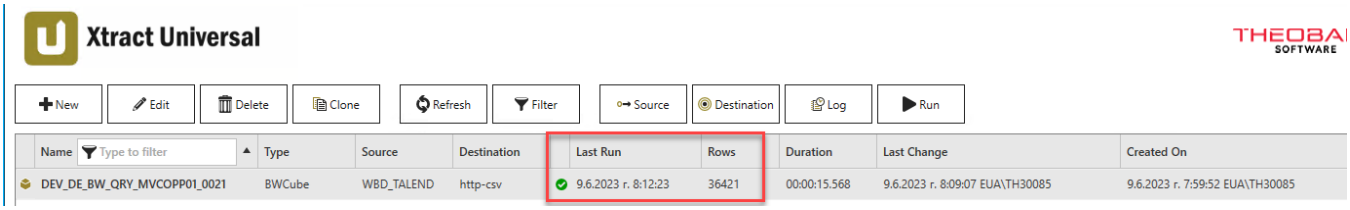
3.6.3 File Splitting: It is required when the output from BW is too huge and it is required to split the files. This option will available only when select destination = CSV files. If this option select, the FileInput component has to get all the files. It may add to specific folder in Xtract server and use component tFileList.

3.7 Click on Run on the top menu. The detail job will appear and the URL that is required for Talend will appear



3.7 Click on Run again (Optional) at the below screen to test that the job is OK.

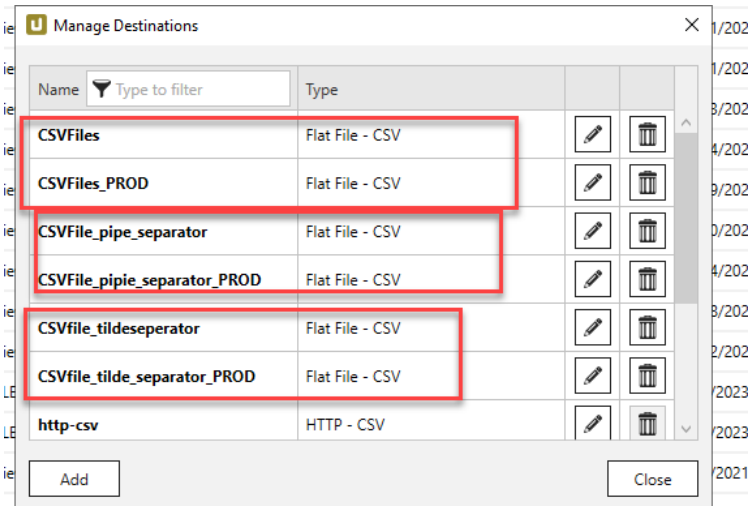
Now the job is running and ready for Talend to get the data



Move to prod

Differentiate the Xtract that will be used in DEV, TEST, PRE-PROD from the one used in PROD. For production you can

- Duplicate the Xtract query and well specify the prod environment (**name must start with TALEND_PROD**)
- Switch the Destination to point to the corresponding production one



- If needed adjust the file name to have the sam prefix as dev

8.3 Talend

Copy the job J028_BW_Query_csv_to_GCS to the new job