Technical Documentation - GTBU Report

Access Management

Roles & Access

List of application role + menu role and explanation if we have several applications role with specials rules.

Role Code	Role Description	Explanation
ZR_RCS_CA_M08	Plant Maintenance	Role menu for queries
ZR_RCS_PM_A02	Maintenance Orders Applications - End User role	
ZR_RCS_PM_A03	Maintenance Orders Applications - Key User role	

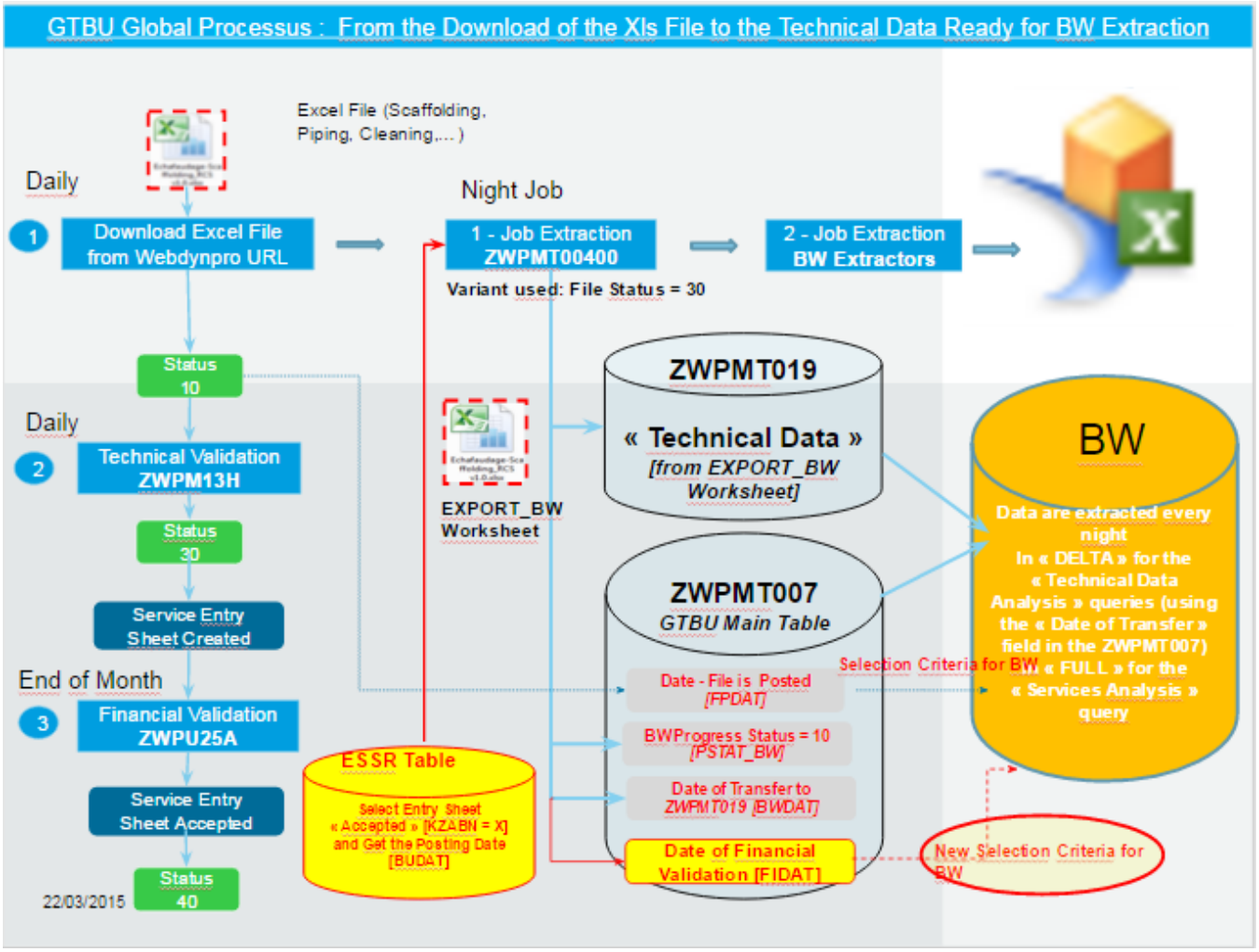
Authorization Objects

List of authorization objects mandatory for the application.

Authorization object	Explanation
C_COMPCDE	Company: ZR_*_CA_P01
CPFCTR1_2	GBU: ZR_*_CA_P05
C_COMPCDE__C_AUTHMA	Authorization scope: ZR_*_CA_P00

DataFlow

Overview



Technical documentation for dataflows : https://drive.google.com/file/d/1q05V4_aHcOHTr_lF4fzYVPymPtUw1iAW/view

Technical Rules on Workbench

Below objects should be loaded previously before load GTBU in the following sequence:

1. Master Data C_PMORDR (Work Orders Master Data)
2. DSO ODS_PM04 (Work Orders / Operations)

For transformations between propagation and business layer C_COMPDE comes from master data C_PMORDR if a correspondance is found, else c_compcde is empty. C_WORKCTR and C_PLANT come from C_PM_OP2.

There are also seletives deletion in the start routines.

Each transformations (except for DSO_PM11) have similar structures rules (with some specificities, for more detail check directly in routines):

During the first package loading, an internal table is filled with data in source package.

Then during the next packages, we check if the new record added already exist in internal table but with different keys. If it's the case, the line is added in ITB_ SCAFFOLDING. If not the line is added but with key figures at 0 (or null) and some key fields (C_GTBUSH & C_INONUM & C_INOREF) empties or the lines is not loaded.

Key figures have differents rules in function of a specific field.

Source	Target	Selective deletion	Field used in "case" to define the key figures
DSO_PM 01	**DSO_PM 02**	Delete data where: C_EQUCAT is not empty and not equal to 0001, 0002, 0003, 0004, 0005 OR C_WKTYP nor equal to SCAFFO.	C_SCITKEY
DSO_PM 01	**DSO_PM 04**	Delete data where C_WKTYP is different from 'PIPING'.	C_SCITKEY
DSO_PM 01	**DSO_PM 05**	Delete data where C_WKTYP is different from 'INEL'.	v_C_SCITKEY (end values of C_SCITKEY after the last ".")
DSO_PM 01	**DSO_PM 07**	Delete data where C_WKTYP is different from 'INEL'.	C_SCITKEY
DSO_PM 01	**DSO_PM 08**	DELETE SOURCE_PACKAGE WHERE (/bic/c_wktyp <> c_insula OR /bic/c_scitkey(5) NE c_insu2) .	C_SCITKEY
DSO_PM 01	**DSO_PM 09**	DELETE SOURCE_PACKAGE WHERE (/bic/c_wktyp <> c_insula OR /bic/c_scitkey(5) NE c_insu5) .	C_EQUNR
DSO_PM 01	**DSO_PM 10**	DELETE SOURCE_PACKAGE WHERE (/BIC/C_WKTYP <> 'INSULA' OR /BIC/C_EQUNR NE ") .	C_SCITKEY
DSO_PM 01	**DSO_PM 13**	DELETE SOURCE_PACKAGE WHERE (/BIC/C_WKTYP <> 'LIFT' AND /BIC/C_WKTYP <> 'CLEAN') .	C_SCITKEY
DSO_PM 01	**DSO_PM 25**	DELETE SOURCE_PACKAGE WHERE (/BIC/C_WKTYP <> 'LIFT' AND /BIC/C_WKTYP <> 'CLEAN') .	C_SCITKEY
DSO_PM 01	**DSO_PM 26**	DELETE SOURCE_PACKAGE WHERE (/BIC/C_WKTYP <> 'PIPING' OR (/BIC/C_SCITKEY(5) NE 'PIPG3') OR (/BIC/C_EQUCAT IS NOT INITIAL AND /BIC/C_EQUCAT NE 'M41' AND /BIC/C_EQUCAT NE 'M42')) .	C_SCITKEY
DSO_PM 01	**DSO_PM 27**	DELETE SOURCE_PACKAGE WHERE (/BIC/C_WKTYP <> 'PIPING' OR (/BIC/C_SCITKEY(5) NE 'PIPG3') OR (/BIC/C_EQUCAT IS NOT INITIAL AND /BIC/C_EQUCAT NE 'M41' AND /BIC/C_EQUCAT NE 'M42')) .	C_SCITKEY
DSO_PM 01	**DSO_PM 11**	DELETE SOURCE_PACKAGE WHERE /BIC/C_WKTYP <> 'COSTFE	-
DSO_PM 14	**DSO_PM 32**	DELETE SOURCE_PACKAGE WHERE /BIC/C_WKTYP <> 'COSTFE' .	-
DSO_PM 14	**DSO_PM 15**	DELETE SOURCE_PACKAGE WHERE (/BIC/C_EQUCAT <> '' AND /BIC/C_EQUCAT <> '0001' AND /BIC/C_EQUCAT <> '0002' AND /BIC/C_EQUCAT <> '0003' AND /BIC/C_EQUCAT <> '0004' AND /BIC/C_EQUCAT <> '0005') OR /BIC/C_WKTYP <> 'SCAFFO' .	C_SCITVAL
DSO_PM 14	**DSO_PM 17**	DELETE SOURCE_PACKAGE WHERE /BIC/C_WKTYP <> 'PIPING' .	
DSO_PM 14	**DSO_PM 18**	DELETE SOURCE_PACKAGE WHERE /BIC/C_WKTYP <> 'INEL' .	Values from C_SCITKEY after the last "."
DSO_PM 14	**DSO_PM 20**	DELETE SOURCE_PACKAGE WHERE (/BIC/C_WKTYP <> 'INSULA' OR /BIC/C_SCITKEY(5) NE 'INSU1') .	C_SCITKEY
DSO_PM 14	**DSO_PM 21**	DELETE SOURCE_PACKAGE WHERE (/bic/c_wktyp <> INSULA OR /bic/c_scitkey(5) NE INSU2) .	C_SCITKEY
DSO_PM 14	**DSO_PM 22**	DELETE SOURCE_PACKAGE WHERE (/bic/c_wktyp <> INSULA OR /bic/c_scitkey(5) NE insu5) .	c_equnr+17(1)
DSO_PM 14	**DSO_PM 23**	DELETE SOURCE_PACKAGE WHERE (/BIC/C_WKTYP <> 'INSULA' OR /BIC/C_EQUNR NE ") .	Values from /BIC/C_SCITKEY before the first "."
DSO_PM 14	**DSO_PM 24**	DELETE SOURCE_PACKAGE WHERE (/BIC/C_WKTYP <> 'LIFT' AND /BIC/C_WKTYP <> 'CLEAN') .	Values from /BIC/C_SCITKEY before the first "."
DSO_PM 14	**DSO_PM 28**	DELETE SOURCE_PACKAGE WHERE (/BIC/C_WKTYP <> 'PIPING' OR (/BIC/C_SCITKEY(5) NE 'PIPG1' AND /BIC/C_SCITKEY(5) NE 'PIPG2') OR (/BIC/C_EQUCAT IS NOT INITIAL AND /BIC/C_EQUCAT NE 'A' AND /BIC/C_EQUCAT NE 'B' AND /BIC/C_EQUCAT NE 'F1' AND /BIC/C_EQUCAT NE 'F3')) .	C_SCITKEY

DSO_PM 14	**DSO_PM 29**	DELETE SOURCE_PACKAGE WHERE (/BIC/C_WKTYP <> 'PIPING' OR (/BIC/C_SCITKEY(5) NE 'PIPG3') OR (/BIC/C_EQUCAT IS NOT INITIAL AND /BIC/C_EQUCAT NE 'M41' AND /BIC/C_EQUCAT NE 'M42')) .	C_SCITKEY
DSO_PM 14	**DSO_PM 30**	DELETE SOURCE_PACKAGE WHERE (/BIC/C_WKTYP <> 'PIPING' OR (/BIC/C_SCITKEY(5) NE 'PIPG3') OR (/BIC/C_EQUCAT IS NOT INITIAL AND /BIC/C_EQUCAT NE 'M5')) .	C_SCITKEY

Reporting

- List of BEx Reports & Workbooks : CATALOG - Industrial & Planning Reporting (in the tab Maintenance, Category = GTBU)

Main queries

Query	Description
BW_QRY_MPR_PM05_002	BW - GTBU SCAFFOLDING - Order Analysis (Core Query)
BW_QRY_MPR_PM05_001	BW - GTBU SCAFFOLDING - Scaf. Analysis (Core Query)
BW_QRY_MPR_PM05_003	BW - GTBU - Reactivity Analysis (Core Query)
BW_QRY_MPR_PM05_004	BW - GTBU INEL - Operations Analysis (Core Query)
BW_QRY_MPR_PM05_005	BW - GTBU INEL - Order Analysis (Core Query)
BW_QRY_MPR_PM05_008	BW - GTBU - Services Analysis (Core Query)
BW_QRY_MPR_PM06_001	BW - GTBU INSULA - Piping Analysis (Core Query)
BW_QRY_MPR_PM06_004	BW - GTBU INSULA - Global Analysis (Core Query)
BW_QRY_MPR_PM06_003	BW - GTBU INSULA - Misc. prices Analysis (Core Query)
BW_QRY_MPR_PM06_002	BW - GTBU INSULA - Devices Analysis (Core Query)
BW_QRY_MPR_PM06_005	BW - GTBU INSULA - Reactivity Analysis (Core Query)
BW_QRY_MPR_PM06_006	BW - GTBU INSULA - Services Analysis (Core Query)
BW_QRY_MPR_PM05_009	BW - GTBU LIFTING - Lifting Analysis (Core Query)
BW_QRY_MPR_PM05_010	BW - GTBU LIFTING - Mounting Analysis (Core Query)
BW_QRY_MPR_PM05_011	BW - GTBU LIFTING - Order Analysis (Core Query)
BW_QRY_MPR_PM05_012	BW - GTBU CLEANING - Cleaning Analysis (Core Query)
BW_QRY_MPR_PM05_013	BW - GTBU CLEANING - Extra-cost Analysis (Core Query)
BW_QRY_MPR_PM05_014	BW - GTBU CLEANING - Order Analysis (Core Query)
BW_QRY_MPR_PM07_007	BW - GTBU PIPING - Services Analysis (Core Query)
BW_QRY_MPR_PM07_001	BW - GTBU PIPING - Piping Analysis (Core Query)
BW_QRY_MPR_PM07_003	BW - GTBU PIPING - Welding Analysis (Core Query)
BW_QRY_MPR_PM07_004	BW - GTBU PIPING - Laying/Removal Analysis (Core Query)
BW_QRY_MPR_PM07_005	BW - GTBU PIPING - Support Analysis (Core Query)
BW_QRY_MPR_PM07_002	BW - GTBU PIPING - Order Analysis (Core Query)
BW_QRY_MPR_PM07_006	BW - GTBU PIPING - Reactivity Analysis (Core Query)

Description	Nom technique
PM - Plant Maintenance	ZR_RCS_CA_M08
Brazil	0000002781
GTBU	0000002841
BW - GTBU - Reactivity Analysis (Core Query)	BW_QRY_MPR_PM05_003
BW - GTBU - Services Analysis (Core Query)	BW_QRY_MPR_PM05_008
BW - GTBU CLEANING - Cleaning Analysis (Core Query)	BW_QRY_MPR_PM05_012
BW - GTBU CLEANING - Extra-cost Analysis (Core Query)	BW_QRY_MPR_PM05_013
BW - GTBU CLEANING - Order Analysis (Core Query)	BW_QRY_MPR_PM05_014
BW - GTBU INEL - Operations Analysis (Core Query)	BW_QRY_MPR_PM05_004
BW - GTBU INEL - Order Analysis (Core Query)	BW_QRY_MPR_PM05_005
BW - GTBU INSULA - Devices Analysis (Core Query)	BW_QRY_MPR_PM06_002
BW - GTBU INSULA - Global Analysis (Core Query)	BW_QRY_MPR_PM06_004
BW - GTBU INSULA - Misc. prices Analysis (Core Query)	BW_QRY_MPR_PM06_003
BW - GTBU INSULA - Piping Analysis (Core Query)	BW_QRY_MPR_PM06_001
BW - GTBU INSULA - Reactivity Analysis (Core Query)	BW_QRY_MPR_PM06_005
BW - GTBU INSULA - Services Analysis (Core Query)	BW_QRY_MPR_PM06_006
BW - GTBU LIFTING - Lifting Analysis (Core Query)	BW_QRY_MPR_PM05_009
BW - GTBU LIFTING - Mounting Analysis (Core Query)	BW_QRY_MPR_PM05_010
BW - GTBU LIFTING - Order Analysis (Core Query)	BW_QRY_MPR_PM05_011
BW - GTBU PIPING - Laying/Removal Analysis (Core Query)	BW_QRY_MPR_PM07_004
BW - GTBU PIPING - Order Analysis (Core Query)	BW_QRY_MPR_PM07_002
BW - GTBU PIPING - Piping Analysis (Core Query)	BW_QRY_MPR_PM07_001
BW - GTBU PIPING - Reactivity Analysis (Core Query)	BW_QRY_MPR_PM07_006
BW - GTBU PIPING - Services Analysis (Core Query)	BW_QRY_MPR_PM07_007
BW - GTBU PIPING - Support Analysis (Core Query)	BW_QRY_MPR_PM07_005
BW - GTBU PIPING - Welding Analysis (Core Query)	BW_QRY_MPR_PM07_003
BW - GTBU SCAFFOLDING - Order Analysis (Core Query)	BW_QRY_MPR_PM05_002
BW - GTBU SCAFFOLDING - Scaf. Analysis (Core Query)	BW_QRY_MPR_PM05_001

Main functionnalities

The files generate data for BW in the export tab. Indicators are registered in the files with a key. After confirmation of the file, a night job (on WP1: PM_T00400_EU; on PF1: ZZI_020_TA_GTBU_EXTRAC_BW) for program ZWPMT00400 add data in tables ZWPMT007 and ZWPMT019 for the extraction. We can check the files uploaded by suppliers in the SAP transaction. In BW, the key relate to the KF.

The application is based on three datasources based on SAP tables:

- DTS_ZBW_ZWPMT007
- DTS_ZBW_ZWPMT019
- DTS_PMESLL

Main dimensions for the data:

- C_GTBUUID Unique log file identifier for GTBU
- C_PMORDR PM Work Order
- C_EQUNR Equipment number
- C_LBLNI Entry sheet number
- C_SEDAT Service entry sheet creation date
- C_SCITKEY Equipment item key

Dependencies with other applications

We should have the information where the application is sending or receiving information (e.g. APD open hub)

Data Loading

Info Providers and objects loaded

Main Process Chain	Final Provider Loading	Frequency	Time start	Duration
GTBU Load GTBU data (PM)	CR_PM06 + sub chains	Daily - not weekend.	Arround 1:56 am Triggeredd by process chain RSP_DAILY	20 mins
GTBU_REACTIVITY Load GTBU execution reactivity	CR_PM03	Daily - not weekend.	Arround 2;10 am Triggeredd by process chain GTBU	2 mins

GTBU_INEL Load GTBU INEL data (PM)	CR_PM05	Daily - not weekend.	Arround 2;02 am Triggeredd by process chain GTBU	3 mins
GTBU_LIFTING Load GTBU LIFTING/CLEANING data (PM)	CR_PM13	Daily - not weekend.	Arround 2;07 am Triggeredd by process chain GTBU	1 mins
GTBU_SCAFFO Load GTBU scaffolding data (PM)	CR_PM02	Daily - not weekend.	Arround 1:57 am Triggeredd by process chain GTBU	2 mins
GTBU_PIPING Load GTBU piping data (PM)	CR_PM26 CR_PM25 CR_PM04 CR_PM27	Daily - not weekend.	Arround 2;00 am Triggeredd by process chain GTBU	3 mins
Load GTBU INSULA data (PM)	CR_PM08 CR_PM09 CR_PM07 CR_PM10	Daily - not weekend.	Arround 2;03 am Triggeredd by process chain GTBU	3 mins
GTBU_SOLVAY Load GTBU Solvay: data (PM)	CR_PM19 + sub chains	Daily - not weekend.	Arround 2:45 am Triggeredd by process chain RSP_DAILY	20 mins
GTBU_SOLVAY_REACTIVITY Load GTBU Solvay: execution reactivity	CR_PM16	Daily - not weekend.	Arround 3:02 am Triggeredd by process chain GTBU_SOLVAY	2 mins
GTBU_SOLVAY_INEL Load GTBU Solvay: INEL data (PM)	CR_PM18	Daily - not weekend.	Arround 2:50 am Triggeredd by process chain GTBU_SOLVAY	2 mins
GTBU_SOLVAY_LIFTING Load GTBU Solvay: LIFTING/CLEANING data (PM)	CR_PM24	Daily - not weekend.	Arround 3:00 am Triggeredd by process chain GTBU_SOLVAY	2 mins
GTBU_SOLVAY_SCAFFO Load GTBU Solvay: Scaffolding data (PM)	CR_PM15	Daily - not weekend.	Arround 3:00 am Triggeredd by process chain GTBU_SOLVAY	2 mins
GTBU_SOLVAY_REACTIVITY Load GTBU Solvay: execution reactivity	CR_PM16	Daily - not weekend.	Arround 3:02 am Triggeredd by process chain GTBU_SOLVAY	2 mins
GTBU_SOLVAY_INSULA Load GTBU Solvay: INSULA data (PM)	CR_PM22 CR_PM23 CR_PM21 CR_PM20	Daily - not weekend.	Arround 3;00 am Triggeredd by process chain GTBU_SOLVAY	2 mins
GTBU_SOLVAY_PIPING Load GTBU Solvay: Piping data (PM)	CR_PM29 CR_PM28 CR_PM30 CR_PM17	Daily - not weekend.	Arround 3;00 am Triggeredd by process chain GTBU_SOLVAY	2 mins

Data Quality Control

Operational Documentation

Procedures

<Describe the recurring procedures needed to operate the application (eg. start/pause/terminate/restart the app processes, data preparation, data ingestion, ETL, data visualization, data export, other manual activities)>

Scheduling

<Describe the scheduling in place for the application (eg. existing jobs, trigger time/event based, dependencies)>

Monitoring

<Describe the monitoring checks to confirm the application is performing well (eg. check the overall status, check performance metrics like runtime /data volume/memory/disk/CPU, maintain and react to alerts/notifications)>

Error Handling

<Describe how to handle errors (eg. error codes, description and respective resolution, alert users)>

Known Bugs

<List the existing bugs, its criticity, workarounds and resolution plan.>

Roadmap

- Ticket #17365: A new data has been added in the definition sheet for Scaffolding. The users want to add it in BW reports.