

BW Currency Conversion

- [Exchange Rates In WBP](#)
 - [Process Chain - PC_TECH_01](#)
 - [CAR Currencies](#)
 - [CAR1 - Magnitude Exchange Rate](#)
 - [CAR3 - Exchange Rate base on CAR1 ref. crcy EUR](#)
 - [CAR2 - COLMAR Exchange Rate](#)
 - [CAR4 - Exchange Rate base on CAR2 ref. crcy EUR](#)
 - [CAR4 is the same rate as CAR2 but can be used to convert from any currency to any currency.](#)
 - [CAR5 - Exchange Rate base on CAR4 ref. crcy EUR + BFR + Budget for next year](#)
 - [CAR6 - Exchange Rate base only on PREV data = Budget rates](#)
 - [M - Standard translation at average rate](#)
 - [ZRHO - Monthly valuation consolidation rate](#)
 - [ZDAY - Custom Exchange Rate](#)
 - [ZRH2 - Exchange Rate base on ZHRO ref. crcy EUR](#)
 - [ZRH3 - Exchange Rate base on ZHRO ZBUD ref. EUR](#)
 - [C - Cumulated average monthly \(reporting\)](#)
 - [A - Average monthly \(reporting\)](#)
 - [ZBUD - ZBUD Monthly reval. for budget \(spring\) => Obsolete \(used in the past to create ZRH3\)](#)
 - [LBRD coming from the Brazilian Central Bank Daily exchange rate](#)
 - [Currency Conversion How To](#)
 - [How to reload historical TCURR:](#)
 - [How to create a backup \(TCURF and CAR* currencies only\)](#)
 - [How to check the rates](#)
 - [How to check the conversion types](#)
 - [How to create and transport currency factor in BW system - TCURF - TCURR](#)
- [Useful Document](#)
 - [How to create and transport currency factor in BW](#)
 - [Exchange rates in CPX](#)
- [Obsolete Data](#)
 - [Management of the currencies on the WBP System](#)
 - [BO Dataflow](#)
 - [BO Dataflow](#)
 - [Technical Details](#)

Rates for Qlikview

Remember that Qlikview is also using these rates by using a query based on the DSO DAFICE01. (BW_QRY_DAFICE01_0001)

Exchange Rates In WBP

Type Code	BW description	Currencies	Frequency	Method	Periods
CAR1	Magnitude Exchange Rate from from BFC file.	To EUR only	Monthly (BW load daily but BFC file update monthly on day 1 - 10)	ABAP	Up to Year + 1
CAR3	Copy of CAR1 + euro is reference currency to allow all conversion from BFC file.	All	Monthly (BW load daily but BFC file update monthly on day 1 - 10)	ABAP	Up to Year + 1
CAR2	Monthly Average Rate + SIMU Rate (All) from BFC file.	To EUR only	Monthly (BW load daily but BFC file update monthly on day 1 - 10)	ABAP	Up to Year + 1
CAR4	Copy of CAR2 + euro is reference currency to allow all conversion from BFC file.	All	Monthly (BW load daily but BFC file update monthly on day 1 - 10)	ABAP	Up to Year + 1
CAR5	Copy of CAR4 + BFR+ BUDGET data from BFC file.	All	Monthly (BW load daily but BFC file update monthly on day 1 - 10)	ABAP	Up to Year + 1
CAR6	Only Budget rates from BFC file.	All	Monthly (BW load daily but BFC file update monthly on day 1 - 10)	ABAP	Up to Year + 1
ZBUD	ZBUD Monthly reval. for budget (spring)	To EUR only	Monthly	PC_FC_COMPLETE	Up to current month
ZRH2	Exchange Rate base on ZHRO ref. crcy EUR	All	Monthly	ABAP	Up to last month
ZRH3	Exchange Rate base on ZHRO ZBUD ref. EUR	All	Monthly	PC_FC_COMPLETE	Up to last month

ZRHO	Monthly valuation consolidation rate	To EUR only	Daily	PC_TECH_01 Variant WP1	Up to last month
M	Standard translation at average rate (European Central Bank)	All	Daily	PC_TECH_01 Variant PRS	Up to last day
C	Y to date cumulated average monthly (reporting)	To EUR only	Daily	PC_TECH_01 Variant PI1	Up to last month
A	Monthly average of 'M' rates since the beginning of the month	To EUR only	Monthly	PC_TECH_01 Variant PI1	Up to last month
EURX	Derived currency rate used by any other currency rate		Daily	PC_TECH_01 Variant WP1	
LBRD	Brazilian Central Bank	All	Daily	PC_TECH_01 Variant PF1	
ZDAY	Custom Daily Rate (Stopped in 2017)	All	Daily	PC_TECH_01 Variant WP1	Up to last day

Process Chain - PC_TECH_01

Steps :

- Starter : Daily run at 1am
- Load Global Settings WP1 : Transfer Global Settings from WP1
 - Contents: Currencies - Units of Measurement - Fiscal Year Variants
 - Mode: Update tables
- Delete M factors from TCURF (Clean before loading from PRS)
- Load Global Settings PRS : Transfer Global Settings from PRS
 - Contents: Currencies
 - Mode: Update tables
- Load Exchange rates WP1
 - Types: ZRHO - ZDAY - EURX
- Load Exchange rates PI1
 - Types: C - A
- Load Exchange rates PRS
 - Types: M
- Load Exchange rates PF1
 - Types: LBRD
- Rebuild Factory Calendar WP1 (program RSIMPCUST, variant Z_FACT_CAL_WP1).
- Execute program ZBW_RSSM_EVENT_RAISE with variant Z_CPX_TRSV_01 this program will use FM RSSM_EVENT_RAISE with system destination CPX to raise the event Z_EVT_PC_TRANSVERSE_01 and so execute chain PC_TRANSVERSE_01 in CPX system.



Variant for program RSIMPCURR and RSIMPCUST must be maintained on each environment. The Source System is not translated /converted during the releasing of the transport request from one BW system to another BW system.

CAR Currencies

The main dataflow is : Flat file uploaded on BW folder and dedicated process chain is used to load the data for CAR1, CAR2, CAR3 and CAR4 currency rate.

What is the Team in charge of the management of source of the data for CAR1 and CAR2?

Answer : BFC admin team.

\$BFC-Admin : BFC-Admin@solvay.com

\$BOIC-Admin : boic-admin@solvay.com

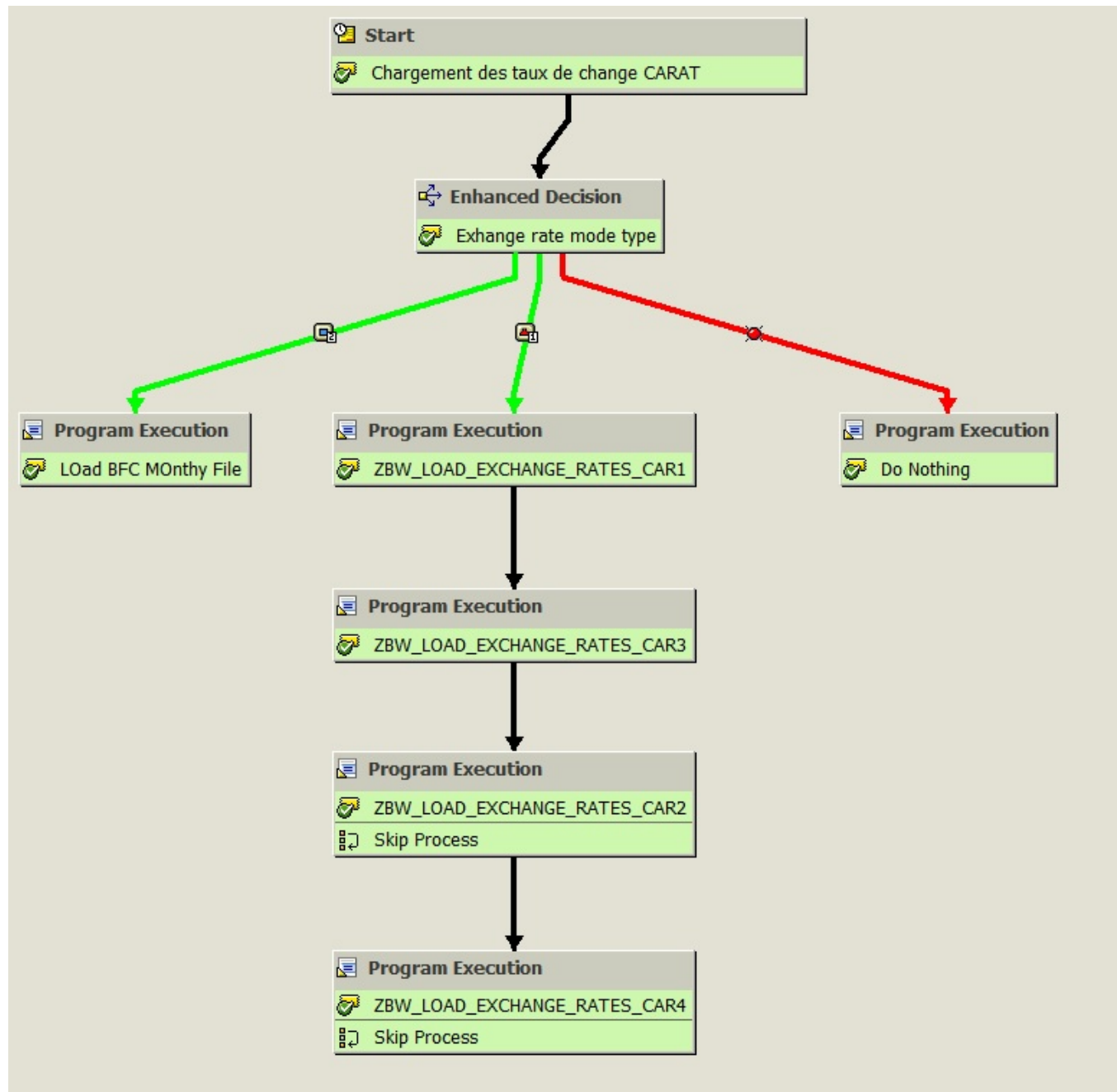
+ Key contacts :

Nicolas Donck : nicolas.donck@solway.com
Tiago Rodrigues : tiago.rodrigues@solway.com

Nicolas Bourgois : nicolas.bourgois@solway.com (who replace Lionel DROUOT)

Main process chain used :

Z_TAUX_CARAT Magnitude Exchange Rates scheduled every BE working day 11:00pm CET Time



Main program used :

ZBW_LOAD_EXCHANGE_RATES_CAR

Variant :

Z_MONTHLY_FILE

ABAP: Selections of Variant Z_MONTHLY_FILE

Catalog

Values

Attributes

Objects for selection screen

Selection Screen	Field name	Type	I/E	Option	frm	to
1000	Choose the type fo file	P				
1000	Exchange rate local file	P				
1000	Exchange rate server File	P		X		
1000	Hist exchange rate server File	P				
1000	BFC Exchange Rate File name	P			Select your PREV_SIMUL_REEL Recurring File	
1000	BFC Exchange Rate File name	P			//exploit/BW/Credit_Supplier_Automation/PREV_SIMUL_REEL_ExchangeRates_EurUsd.txt	
1000	Histo Exchange Rate File name	P			//exploit/BW/Credit_Supplier_Automation/PREV_SIMUL_REEL_histo.txt	
1000	TCURR Delete (X = Yes)	P				
1000	First Recurring Period	P			01.2020	

Values used :

1000 Choose the type fo file P
 1000 Exchange rate local file P
 1000 Exchange rate server File P X
 1000 Hist exchange rate server File P
 1000 BFC Exchange Rate File name P Select your PREV_SIMUL_REEL Recurring File
 1000 BFC Exchange Rate File name P //exploit/BW/Credit_Supplier_Automation/PREV_SIMUL_REEL_ExchangeRates_EurUsd.txt
 1000 Histo Exchange Rate File name P //exploit/BW/Credit_Supplier_Automation/PREV_SIMUL_REEL_histo.txt
 1000 TCURR Delete (X = Yes) P
 1000 First Recurring Period P 01.2020

Explanation how the program update CARx currencies rates :

Example of the content of the file : PREV_SIMUL_REEL_ExchangeRates_EurUsd.txt

```

Curr;Period;TypeRate;EUR_TC;USD_TC;EUR_TMN;USD_TMN;EUR_TMN_1;USD_TMN_1;EUR_TO;USD_TO;EUR_TCN-1;USD_TCN_1;EUR_TMYN_1;USD_TMYN_1
AED;01.2018;REEL;4.5761000;3.6729272;4.4809800;3.6730232;4.1483000;3.6729803;4.4058500;3.6730721;3.9484000;3.6731010;3.8998200;3.6729721
AED;01.2019;REEL;4.2210000;3.6731497;4.1935800;3.6731452;4.3378800;3.6732651;4.2077500;3.6731264;4.5761000;3.6729272;4.4809800;3.6730232
AED;01.2020;REEL;4.0577500;3.6730029;4.0769700;3.6731114;4.1118700;3.6731162;4.1251500;3.6731668;4.2210000;3.6731497;4.1935800;3.6731452
AED;01.2021;REEL;4.4564500;3.6731506;4.4703100;3.6731606;4.1946800;3.6731319;4.5068000;3.6731733;4.0577500;3.6730029;4.0769700;3.6731114
AED;02.2018;REEL;4.4883500;3.6731044;4.5067400;3.6730316;4.1483000;3.6729803;4.4058500;3.6730721;3.8886000;3.6728217;3.9037700;3.6729552
AED;02.2019;REEL;4.1912500;3.6731519;4.1818700;3.6731362;4.3378800;3.6732651;4.2077500;3.6731264;4.4883500;3.6731044;4.5067400;3.6730316
AED;02.2020;REEL;4.0360500;3.6729762;4.0429200;3.6731111;4.1118700;3.6731162;4.1251500;3.6731668;4.1912500;3.6731519;4.1818700;3.6731362
AED;02.2021;REEL;4.4504000;3.6731594;4.4568000;3.6731363;4.1946800;3.6731319;4.5068000;3.6731733;4.0360500;3.6729762;4.0429200;3.6731111
AED;03.2018;REEL;4.5244500;3.6728903;4.5146700;3.6730160;4.1483000;3.6729803;4.4058500;3.6730721;3.9241500;3.6730940;3.9108300;3.6729392
AED;03.2019;REEL;4.1258500;3.6731359;4.1717300;3.6731382;4.3378800;3.6732651;4.2077500;3.6731264;4.5244500;3.6728903;4.5146700;3.6730160
  
```

Rules applied to extract data from the file :

Periods (Months)	CAR 1/3	CAR2/4	CAR5 (Real + Simulation (BFR) + PREV (Budget) exchange rates data)	CAR6 Only PREV (Budget) exchange rates data
Past : M-X	column used = EUR_TMN type rate = REEL Period = M-X	EUR_TMN for REEL and M-X	EUR_TMN for REEL and M-X (first year added for CAR5 : 2019)	EUR_TC for PREV (replicate values of the quarter to previous month for example quarter 03.2021, the values for 01.2021 and 02.2021 will have the same values)
Current : M	column used = EUR_TMN type rate = REEL Period = M-1	EUR_TC for SIMULATION and M For QV extraction => exception EUR_TC For PREV if simulation empty	EUR_TC for SIMULATION and M For QV extraction => exception EUR_TC For PREV if simulation empty	EUR_TC for PREV (no special rules = value of the quarter linked to the current month)

Futur: M+X Until end of current year	column used = EUR_TMN type rate = P REV Period = M+X	EUR_TC for SIMULATION and M+X Correction 01.2021: For QV extraction => exception EUR_TC For PREV if simulation empty	EUR_TC for SIMULATION and M+X Correction 01.2021: For QV extraction => exception EUR_TC For PREV if simulation empty	EUR_TC for PREV (replicate values of the quarter to previous month for example quarter 03.2022, the values for 01.2022 and 02.2022 will have the same values)
Next year	column used = EUR_TMN type rate = P REV Period = Next Year	Not generated due to some impact with Dynasys development	EUR_TC For PREV of last quarter of the current year for all months of next year	EUR_TC for PREV (if data not entered by BFC team, the rule is to take into account the last quarter known so could be 12.2022 for all months of 2023 the value will be the same)

💡 Remark:

REEL = real BFC cumulated rate (month by month for historical months) +

PREV = budget (quarter by quarter)

SIMU = BFR rate quarter by quarter for the mains currencies managed by BFC team.

eur_tc(10) TYPE c, "Closing=End-of Month in EUR
usd_tc(10) TYPE c, "Closing=End-of Month in USD
eur_tmn(10) TYPE c, "Year-To-Date in EUR
usd_tmn(10) TYPE c, "Year-To-Date in USD
eur_tmn_1(10) TYPE c, "Year-To-Date Dec. N-1 in EUR
usd_tmn_1(10) TYPE c, "Year-To-Date Dec. N-1 in USD
eur_to(10) TYPE c, "Opening rate in EUR
usd_to(10) TYPE c, "Opening rate in USD
eur_tcn_1(10) TYPE c, "Closing=End-of Month N-1 in EUR (same month previous year)
usd_tcn_1(10) TYPE c, "Closing=End-of Month N-1 in USD (same month previous year)
eur_tmyn_1(10) TYPE c, "Year-To-Date N-1 in EUR (same month previous year)
usd_tmyn_1(10) TYPE c, "Year-To-Date N-1 in USD (same month previous year)

+ Rules : Compute rates using following rules

*&- for REEL : compute the monthly rate TM with formula :

*& $TM\text{-}reel(n) = (n \times TMN(n)) - [(n-1) \times TMN(n-1)]$

*& TMN : year to date rate received n the file

*& n : number of the concerned month

*& computed for each month before current month

<FS_DATA> - RATEC =

(<FS_DATA> - EUR_TMN * <FS_DATA> - CALMONTH+4 (2))
- (L_DATA - EUR_TMN * L_DATA - CALMONTH+4 (2)).

*-& for PREV (=BUDGET rate) --> computed by year

*& $EUR_TC\text{-}budget(12) = (12 \times EUR_TC(12)) - [9 \times EUR_TC(9)]$

*& the computed rate should be placed for month of quarters Q2, Q3, Q4

*& the received EUR_TC-prev rate should be placed for Q1

*&

*-& for SIMU (=BFR) --> computed by quater

*& $EUR_TC\text{-}bfr(3*i) = (3*i \times EUR_TC(3*i)) - [3*(i-1) \times EUR_TC(3*(i-1))]$

*& the 3 computed rate should be placed for corresponding mont of quarters Q2, Q3, Q4

*& the received TMN-simu rate should be placed for Q1

al11 folder used :

/exploit/BW/Credit_Supplier_Automation

Files :

PREV_SIMUL_REEL_histo.txt

PREV_SIMUL_REEL_ExchangeRates_EurUsd.txt

Schedules of the update on BW folder :



Rodrigues, Tiago

to me, Marie-Yolande, Gregory, Cyril ▾

9 Jul 2020, 19:49 (16 hours ago)



Reply to all



Hello Guillaume,

Currently we are sending the files several times per day.
Here below the current timings:

Trigger	Details	Status
Monthly	At 2:06 AM on day 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 of January, February, ...	Enabled
Monthly	At 4:06 AM on day 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 of January, February, ...	Enabled
Monthly	At 6:06 AM on day 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 of January, February, ...	Enabled
Monthly	At 10:06 AM on day 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 of January, February...	Enabled
Monthly	At 1:06 PM on day 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 of January, February, ...	Enabled
Monthly	At 3:06 PM on day 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 of January, February, ...	Enabled
Monthly	At 6:06 PM on day 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 of January, February, ...	Enabled
Monthly	At 8:06 PM on day 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 of January, February, ...	Enabled
Monthly	At 10:06 PM on day 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 of January, February...	Enabled

Do you want me to extend one additional schedule at 11:06 PM ?

Thank you for the confirmation.



KUCZYNSKI, Marie-Yolande

to Gilles, Laurence, me, Caroline, Harsha, \$BFC-Admin, Tresio, \$BOIC-Admin, Annelore, Lionel, Hanqing ▾

16:06 (44 minutes ago)



Reply to all



Hello Guillaume,

As I've explained in my mail, 2020 rates, forecasts (PREV) are managed in BFC only quarterly, same way or ALL CURRENCIES, not only for VES.
It was already like this last year.

Cordialement / Regards

Marie-Yolande KUCZYNSKI

Finance Service Line

IS Finance & Treasury

T: +33 1 53 56 62 42 - M: +33 6 85 30 91 95

40, Rue de la Haie Coq

93306 AUBERVILLIERS CEDEX FRANCE

www.solvay.com

Connect with Solvay:



CAR1 - Magnitude Exchange Rate

Description

CAR1 is the joining of the "un-cumulated" version of the **Cumulated Monthly Mean** (CMM - Also referred as "YTD Monthly Avg Rate") **AND** the **PR EV (Budget)** rates from BFC.

For past months, CAR1 is the un-cumulated CMM and for the future months, it is the PREV rate.

When to use it

Must be used for Profit & Loss accounts (cumulated) and most of balance sheet movement flows.

CAR3 - Exchange Rate base on CAR1 ref. crcy EUR

Description CAR3 is the same rate as **CAR1** but can be used to convert from any currency to any currency. As CAR1 can only be used to convert to EUR, CAR3 is set so that EUR is used as a "Pivot" currency.

When to use it CAR3 is used for SPRINT. *P&L, Working Capital*

CAR2 - COLMAR Exchange Rate

CAR2 used for Colmar or CAR4 ?

CAR4 - Exchange Rate base on CAR2 ref. crcy EUR

CAR4 is the same rate as **CAR2** but can be used to convert from any currency to any currency.

As CAR2 can only be used to convert to EUR, CAR4 is set so that EUR is used as a "Pivot" currency.

Used by Colmar and Finance application

Tcode ZRATE to be documented.

CAR5 - Exchange Rate base on CAR4 ref. crcy EUR + BFR + Budget for next year

Mainly used for Anaplan ZBB-F2G project and in the QlikSense Dashboard Cos\$ta

CAR6 - Exchange Rate base only on PREV data = Budget rates

Mainly used for the QlikSense Dashboard Cos\$ta

M - Standard translation at average rate

Source

The currency rate M is loaded from PF1_050 (see the detail in the google presentation at the end of this page)

Technical Details

Loaded with Process Chain : PC_TECH_01

ZRHO - Monthly valuation consolidation rate

Description

It's the End of month rate (FDM) from BFC. Rate is posted by the European Central Bank (ECB - TARGET system) or related National Central Bank, on last quotation day.

Values can be checked In the finance team site. Under Exchange Rate. "Fin mois / End of Month".

https://aodocs.altirnao.com/?locale=en_US&aodocs-domain=solvay.com#Menu_listDoc/LibraryId_QLsALxhAuXNKLSz74H/ViewId_QLsANWb3lkRle5nnjN/Filter_%257B%2522QLsALay014DXTQRuXH%2522:%25220B0Km5zvG_rmgN2p2YTBvSjEtSjQ%2522%257D

Or in the Solia CICC Online, Financial And Credit Tools :

<https://solia.solvay.com/sites/eco-cicc#Home-show>

http://solia.solvay.com/irj/portal/CICCOOnline_FinancialAndCreditTools

Source

SAP WP1 - Rate ZRHO -

Remark : ZRHO must be manually created when a new currency is needed. Then a job will run and update it automatically using "M" of the last working day.

Main contact = [Tiago.rodriques](#) and [marie-yolande.kuczynski](#). Freshdesk group = IS-CGI-L2-RTR

Job in WP1 = FI_EXCHANGE_RATE_DAILY__UPDATE_2

Program = ZZRDI CUR with parameter (DAILY_M, DAILY_M_X, DAILY_M_Z, DAILY_LPLN_ZDA)

When to use it

Must be used for Balance Sheet accounts, end of period flow.

Technical Details

Loaded with Process Chain : PC_TECH_01

ZDAY - Custom Exchange Rate

Source

SAP WP1

Technical Details

Loaded with Process Chain : PC_TECH_01

ZRH2 - Exchange Rate base on ZHRO ref. crcy EUR

Description

ZRH2 is the same rate as **ZRHO** but can be used to convert from any currency to any currency.

As ZRHO can only be used to convert to EUR, ZRH2 is set so that EUR is used as a "Pivot" currency.

Technical Details

Program used : Z_CREATE_EXCHANGE_RATES_ZRH2 Pgr: Exchange Rate ZRH2 base on ZRHO

Process chain : Z_TAUX_ZRH2 / Exchanges Rate ZRH2 from ZRHO => runs daily except weekends (sub chain of RSP_DAILY)



The ZRH2 is not as exact as the ZRHO rate because the "pivoting" calculation may loose some decimals information. One example well known is about KRW.

ZBUD

Program : Z_CREATE_EXCHANGE_RATES_ZBUD

Process chain : PC_FC_COMPLETE

Source : '//exploit/BW/Credit_Supplier_Automation/PREVExchangeRatesForBW-SCA-EurUsd.txt' .

ZRH3 - Exchange Rate base on ZHRO ZBUD ref. EUR

Description

ZRH2 is the concatenation of the ZRHO and ZBUD exchange rates. It takes the ZRHO rate for past periods and the ZBUD for the future periods.

EUR is set as a pivot currency so that the rate can be used from any currency to any currency.

Technical Details

Z_CREATE_EXCHANGE_RATES_ZRH3 Pgr: Exchange Rate ZRH3 base on ZRHO and ZBUD

Process chain : PC_FC_COMPLETE



The ZRH3 is not as exact as the ZRHO rate because the "pivoting" calculation may loose some decimals information.

C - Cumulated average monthly (reporting)

Description

It's the **Cumulated Monthly Mean** (CMM - Also referred as "YTD Monthly Avg Rate") from BFC.

Values can be checked In the finance team site. Under Exchange Rate. "Moyen / Average".

https://aodocs.altirnao.com/?locale=en_US&aodocs-domain=solvay.com#Menu_listDoc/LibraryId_QLsALxhAuXNKLSz74H/ViewId_QLsANWb3lkRle5nnjN/Filter_%257B%2522QLsALAY014DXTQRuXH%2522:%25220B0Km5zvG_rngN2p2YTBvSjEtSjQ%2522%257D

Or in the Solia CICC Online, Financial And Credit Tools :

http://solia.solvay.com/irj/portal/CICCOOnline_FinancialAndCreditTools

When to use it

It is used by Qlikview for the "Fixed Cost Dashboard and in WBP for P&L and GBU fixed costs.

A - Average monthly (reporting)

Description

It is the **Average monthly** coming from CICC.

It is used by P&L community.

ZBUD - ZBUD Monthly reval. for budget (spring) => Obsolete (used in the past to create ZRH3)

Description

Exchange rates version PREV (the same as used for Budget and RSB Phases)

Source

BFC

Technical Details

File is : //exploit/BW/Credit_Supplier_Automation/PREVExchangeRatesForBW-SCA-EurUsd.txt

File sent via FTP from 6th to 20th day of the month at 0:30 am (Paris Time).

LBRD coming from the Brazilian Central Bank Daily exchange rate

Description

LBRD is coming from the Brazilian Central Bank

Documentation in the link below :

Examples of Rate associated to an Application

Application	Query	Rate	Time Reference
-------------	-------	------	----------------

GSV	CVA 01_00_00: Invoiced purchasing turnover (FI) GSV_QRY_CUB_FIAP1_CVA_010000	CAR3	0CALMONTH - Invoice Posting Date
TR	BW - Shipment costs analysis new (Core Query) BW_QRY_MPR_TR002_0001	CAR1	0CALMONTH - Shipment Creation Date
PS	BW - Projects PEC & Cash (Core Query) BW_QRY_MPR_PS004_0001	CAR3	0CALMONTH : • For Actual CO/FI Posting date. • For Commitments : Requested Delivery date. • For Budget : WBS Creation Date
FC2	FC2-A01 - Cost Analyst - NVC destination (Core) BW_QRY_MPR_FC001_0010C	CAR3	0FISCPER - Posting Date
CBS	CBS - Functions - end of month (Core query) BW_QRY_MPR_FC001_0001	CAR3	0FISCPER - Posting Date
IM	BW - Stock evolution with conversion (Core Query) BW_QRY_MPR_IC001_0062	ZRHO	0CALMONTH - Stock Month
FIAR	BW - Credit Management Overdue (Core Query) BW_QRY_MVFIAR01_0002	ZRH2	Selected Date (Variable)
FIWC	BW - Working Capital for GBU (Core Query) BW_QRY_MPR_WC02_0002	ZRH2	Selected Date (Variable)

Principle of currency conversion in BW

Principle

Currency translation	The currency translation happens at different steps : As defined here above, the currency of the transactions are either kept as is or converted into another currency (controlling area currency, ...) when they are uploaded in the different infocubes. If you want to select another currency than that one stored in the infocube, you may translate it on spot when using a query or by creating a key figure with the requested currency and the appropriated available rate.
----------------------	---

Illustration

Example on invoices

Table 1: Solvay chemicals international (0005) has EUR as local currency but issued following invoices :

Date	Net value	Rate (M)	with 3 decimals
12/12/2005	2.000,00 CHF	1,5398	1,540
11/01/2006	2.000,00 CHF	1,5437	1,544
10/02/2006	2.000,00 CHF	1,5563	1,556

Table2: T-code: **OB08** to see exchange rate (in case we have only following exchange rate in the system)

Date	Rate (M)	Rate C
30/12/2005	1,5551	1,54825
31/01/2006	1,5547	1,54942
17/02/2006	1,5588	1,54942

Data base currency

The result of the query will be (with **database currency - the amount without conversion by exchange rate of OB08**. It is calculated during loading data) :

It calculate by using table 1 with 3 decimals

Cal. year / month	Net value (in doc.curr)	Gross in Trans. Curr (zzvgrossc)	Invoiced Gross amnt (zzvgross)	Netv
12.2005	2.000 CHF	2.000 CHF	1.298,70 EUR	1.298,70 EUR
01.2006	2.000 CHF	2.000 CHF	1.295,34 EUR	1.295,34 EUR
02.2006	2.000 CHF	2.000 CHF	1.285,35 EUR	1.285,35 EUR

The invoiced gross amount is always in local currency and is the result of the conversion of the gross amount in transaction currency as been converted at the **rate M** (with 3 decimals) of the **posting date**.

Remark : the NETV is a calculation based on the invoiced gross amount.

Rate M

For example, we are querying on 17/02/2006. You want to convert the CHF to EUR, in the result of the query if you use rate : **ZZTODAY (rate M)** :

It calculate by using table 2 with Rate M on 17/02/2006 (date of execution the report) for all key figures, which is 1,5588

Cal. year / month	Net value (in doc.curr) EUR	Gross in Trans. Curr (zzvgrossc)	Invoiced Gross amnt (zzvgross)	Netv
12.2005	1.283,04	1.283,04 EUR	1.298,70 EUR	1.298,70 EUR
01.2006	1.283,04	1.283,04 EUR	1.295,34 EUR	1.295,34 EUR
02.2006	1.283,04	1.283,04 EUR	1.285,35 EUR	1.285,35 EUR

Rate C	On the 17/02 you want to convert the CHF to EUR, in the result of the query, if you use the rate : ZZVAVMONTC (rate C)				
	It calculate by using table 2 with Rate C on 17/02/2006 (date of execution the report) for all key figures, which is 1,54942				
	Cal. year / month	Net val EUR	Gross in Trans. Curr (zzvgrossc)	Invoiced Gross amnt (zzvgross)	Netv
	12.2005	1.290,81	1.290,81 EUR	1.298,70 EUR	1.298,70 EUR
	01.2006	1.290,81	1.290,81 EUR	1.295,34 EUR	1.295,34 EUR
	02.2006	1.290,81	1.290,81 EUR	1.285,35 EUR	1.285,35 EU
Enf of month rate	If your the definition of your key figure in your query specially refers to the rate : ZZVAVMONTH (Monthly end of month rate) :				
	Cal. year / month	Net value EUR	Gross in Trans. Curr (zzvgrossc)	Invoiced Gross amnt (zzvgross)	Netv
	12.2005	1.286,09	2.000 CHF	1.298,70 EUR	1.298,70 EUR
	01.2006	1.286,42	2.000 CHF	1.295,34 EUR	1.295,34 EUR
	02.2006	1.283,04	2.000 CHF	1.285,35 EUR	1.285,35 EUR
	It calculate by using table 2 with Rate M base on Cal. year / month				
	12.2005 use 1,5551				
	01.2006 use 1,5547				
	02.2006 use 1,5588				
	It is used exchange rate of last date on each month that available on table 2 (OB08)				

Currency Conversion How To

How to reload historical TCURR:

To reload the historical value in TCURR table, it's necessary to use program ZBW_LOAD_EXCHANGE_RATES_CAR with option "Hist exchange rate server File". This option will get REEL rate from PREV_SIMUL_REEL_histo.txt to replace table TCURR on CAR1 - CAR6 basing on the period selection.

Integration of CARAT exchange rates

☐ Choose the type fo file
☐ Exchange rate local file
☐ Exchange rate server File
☒ Hist exchange rate server File

Histo Exchange Rate File name
TCURR Delete (X = Yes) ☐

First Recurring Period

Be careful, the date in "first recurring period" in case of historical reload, it's the "until" date, not the "from" date.

Here, the exchange rate before 01.2020 will be reloaded, not after.

Flag TCURR Delete, if mark it = X, it will deleted all the TCURR of CAR1 - CAR6 that time < "First Recurring Period". We use this option only when we are sure that the history file from BFC can replace all CARS type.

The impact will be on the currency that is not in the file will be deleted in TCURR table.

How to create a backup (TCURF and CAR* currencies only)

1. Go to transaction SE38
2. Execute program ZBW_CURRENCY_BACKUP
3. Select the requested option

TCURR and TCURF Backup

Select an option :

☐ 1 - Backup TCURF

☐ 2 - Backup CAR1

☐ 3 - Backup CAR2

☐ 4 - Backup CAR3

☐ 5 - Backup CAR4

4. Execute and check in AL11 in corresponding folder

a. TCURF directory /exploit/BW/TCURF. File name template TCURF_BACKUP_[SYSTEM]_[USER]_[DATE]_[TIME].csv

Directory: /exploit/BW/TCURF

Useable	View...	Chang...	Length	Owner	Lastchange	Lastchan...	File Name
			4096	sftpbw	19.09.2018	14:27:41	.
X			1306466	wbqadm			TCURF_BACKUP_WBQ_FDODEMON_20180919_142741.csv

b. CAR directory /exploit/BW/TAUX_DEV. File name template TCURR_[CAR1/2/3/4]_BACKUP_[SYSTEM]_[USER]_[DATE]_[TIME].csv

Directory: /exploit/BW/TAUX_DEV

Useable	View...	Chang...	Leng...	Owner	Lastchange	Lastchange	File Name
			256	sftpbw	19.09.2018	14:28:35	.
			4096	exploit	31.07.2018	10:25:34	..
X			4583...	wbqa...	19.09.2018	14:28:35	TCURR_CAR1_BACKUP_WBQ_FDODEMON_20180919_142835.csv
X			2573...	sftpbw	01.08.2018	14:05:45	taux_dev_carat.lst

How to check the rates

1. Go to transaction SE16
2. Select table TCURR
3. Enter a Exchange rate type
4. Enter a from currency / to currency

	Client	Exch.rate type	From currency	To-currency	Valid from	Exchange Rate
	400	ZRHO	USD	EUR	31.01.2009	/1,28160
	400	ZRHO	USD	EUR	31.12.2008	/1,39170
	400	ZRHO	USD	EUR	30.11.2008	/1,27270
	400	ZRHO	USD	EUR	31.10.2008	/1,27570
	400	ZRHO	USD	EUR	30.09.2008	/1,43030
	400	ZRHO	USD	EUR	31.08.2008	/1,47350
	400	ZRHO	USD	EUR	31.07.2008	/1,56110

Note If there is no rate for a period BW will use the previous one! Using the example above: if I need to convert from USD to EUR with date = 10.02.2009 since there is no rate it will use the January rate

How to check the conversion types

1. Go to transaction RSCUR
2. Select a conversion type
3. You can then check :
 - The exchange rate used
 - The time characteristic used to apply the rate
 - The target currency (fixed, fixed variable, open)

How to create and transport currency factor in BW System - TCURF Table

How to create a new rate type in BW

Mains issues&Troubleshooting about currency exchange rate

1) NO_FACTORS_FOUND

Test Function Module: Result Screen

Test for function group SCUN
Function module CONVERT_TO_LOCAL_CURRENCY
Uppercase/Lowercase ☐

Runtime: 5 521 Microseconds

Exception NO_FACTORS_FOUND
Message ID: SG Message number: 111
Message:
Maintain translation ratios for USD / PEN (exchange rate type CAR3)

Import parameters	Value
CLIENT	110
DATE	01.01.2017
FOREIGN_AMOUNT	1000
FOREIGN_CURRENCY	PEN
LOCAL_CURRENCY	USD
RATE	
TYPE_OF_RATE	CAR3
READ_TCURR	

Export parameters	Value
EXCHANGE_RATE	
FOREIGN_FACTOR	
LOCAL_AMOUNT	
LOCAL_FACTOR	
EXCHANGE_RATEX	
FIXED_RATE	
DERIVED_RATE_TYPE	

=> Solution : Add new factors on the tcurf table. See : [How to create and transport currency factor in BW System - TCURF Table \(document in the drive + see below the link\)](#)

How to create and transport currency factor in BW system - TCURF - TCURR

Knowlegde Database

Specific currencies with no decimals (ie : KRW / JPY)

Currencies KRW and JPY don't have decimals. But you can see in in the Infoprovider that SAP stores in internal format with 2 decimals.

For example if you see the amount **12.34** in the infoprovider for these currencies, in the reporting it will display **1234**.

This information is stored in TCURX table. CURRDEC column corresponding to the number of decimals (0 in this case)

Data Browser: Table TCURX Select Entries		2
	CURRKEY	CURRDEC
	JPY	0
	KRW	0

Useful Document

How to create and transport currency factor in BW

[Document](#)

Exchange rates in CPX

[See CPX documentation.](#)

In CPX System, exchanges rates (with factory calendar and global setting) are loading with process Chain PC_TRANSVERSE_01.

In CPX Exchange rates are updated from WPX system and also WBP system, it's why at the end of chain PC_TECH_01 there is a program ZBW_RSSM_EVENT_RAISE with variant Z_CPX_TRSV_01 to use FM_RSSM_EVENT_RAISE with system destination CPX to raise the event Z_EVT_PC_TRANSVERSE_01 and so execute chain PC_TRANSVERSE_01 in CPX system.

Obsolete Data

Management of the currencies on the WBP System

Old dataflow for CAR currency rate

BO Dataflow

Business Objects receives the Cumulated Monthly Mean rate (CMM) and the PREV (Budget) rates from BFC and calculates via a program the "un-cumulated" monthly rates and then sends it to BW via flat file.

For details of the calculations in BO :

https://drive.google.com/file/d/1uyx74ar_DvvpOheint6EM6bGlJnEBoi/view

Old dataflow

BO Dataflow

Car2 is filled by flat file generated by program on BO serveur from table. eses001.dbo.eis_exrate

flat file taux_dev_carat_simu.lst

BFC send flat file to BO **PCLOC_MAGNITUDE_ttx_magnitude.txt**

Technical Details