

Currency Translation in SAP BI – Step by step Guide



Applies to:

SAP BIW 3.5, SAP NetWeaver 7.0. For more information, visit the [Business Intelligence homepage](#).

Summary

Currency translation allows you to translate key figures with currency field that are present at the InfoProvider level with different currencies to a specific currency on the fly while executing the report. It can also be used in transformation rules to translate the amount key figures with different currencies to a standard currency while loading the data into BW data targets. The document explains the step by step procedure to implement the currency translation scenario.

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Author Bio



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Steps in Backend

Following are the steps to create Currency Translation Type in backend.

1. Go to Transaction RSCUR; specify the technical name of the Currency Translation Type and click on *create* button.

The screenshot shows the SAP 'Currency translation type' creation screen. The title bar reads 'Currency translation type'. Below the title bar is a toolbar with various icons. The main area contains a label 'Currency Transltn Type' followed by a text input field containing 'ZABC_CTT'.

2. Specify the description as shown below. In *Exchange Rate Tab*, you can set the preference for Exchange Rate Type. Following options are available.
 - Exchange Rate Type: Hardcode the Exchange Rate Type value.
 - Ex. Rate Type from Var.: Place a selection variable (the variable can be created on characteristics ORTYPE) for user entry which will be appeared in the selection screen while executing the report.
 - Dyn. Ex. Rate Determination: The exchange rate will be taken from IMG settings for currency translation.
 - Exchange Rate from InfoObj.: The exchange rate will be taken from the reference InfoObject specified here. (The combination of *Exchange Rate Type from Variable* and *Exchange Rate from InfoObject* are mutually exclusive).

The screenshot shows the SAP 'Edit Currency Conversion Type' screen. The title bar reads 'Edit Currency Conversion Type'. Below the title bar is a toolbar with various icons. The main area contains a label 'Conversion Type' followed by a text input field containing 'ZABC_CTT'. Below that is a label 'Description' followed by a text input field containing 'Demo Currency Translation Type'. At the bottom, there are four tabs: 'Properties', 'Exchange Rate', 'Currncy', and 'Time Ref.'. The 'Exchange Rate' tab is selected, showing four radio button options: 'Exchange Rate Type' (selected), 'Ex. Rate Type from Var.', 'Dyn. Ex. Rate Determination', and 'Exchange Rate from InfoObj.'. There is also a checkbox for 'Inverse Ex.Rate'.

3. Click on *Currency* Tab. Specify the Source Currency and Target Currency preferences. You can set the preferences best suited to your requirements.
 - We can either hardcode the value or place a selection variable (the variable can be created on characteristics 0CURRENCY) for user entry which will be appeared in the selection screen while executing the report.
 - InfoSet: An entry in Target Currency Using InfoSet is only necessary when the target currency is to be determined using an InfoObject and this occurs multiple times in the InfoSet.

Edit Currency Conversion Type

Obj. directory entry

Conversion Type

Description

Properties | Exchange Rate | Currency | Time Ref.

Source Currency

Source Currency from Data Record

Fixed Source Currency

InfoObject for Determining Source Currency

Source Currency from Variable

Target Currency

Target Currency Selection with Translation

Fixed Target Currency

Target Currency from Variable

InfoObject for Determining Target Currency

Use in Transformation Only

InfoSet

InfoProvider/Table Alias

InfoObject/Field Alias

Technical Name

4. Click on *Time Ref.* tab. Specify the preference for Exchange Rate Date to translate the currency.
 - Fix Time Reference: Exchange Rate will be taken as on either Current Date, Key Date or Date from variable (the variable can be created on characteristics 0CALDAY).
 - Variable Time Reference: Exchange Rate will be taken as on Date from standard InfoObject 0CALDAY or user defined InfoObject like Posting Date, Pricing Date etc. You can also use the option of *Time Shift* to give offset for date.
 - InfoSet: An entry in Variable Time Reference Using InfoSet is only necessary when the time reference is to be determined using an InfoObject and this InfoObject occurs multiple times in the InfoSet.

Edit Currency Conversion Type

Obj. directory entry

Conversion Type: ZABC_CTT
Description: Demo Currency Translation Type

Properties | Exchange Rate | Currncy | **Time Ref.**

Fixed Time Ref.
 Current Date
 Key Date
 Time Reference from Variable
 Use Query Key Date

Variable Time Reference: To the exact day
 Standard InfoObject
 Special InfoObject
 InfoSet
 InfoProvider/Table Alias
 InfoObject/Field Alias
 Technical Name: ZSALE_BIL___F192

Time Shift
 Time Shift from Variable

- Click on Save to save the currency translation type. Now this currency translation type will be available for use in transformation rules and in the key figure properties in query definition.

Steps in Frontend

Currency Translation can be applied to normal amount key figures (key figures present in InfoProvider) or calculated key figures. Formula type of key figures doesn't support Currency Translation.

A. Steps for Normal Key Figure/Calculated Key Figure

- Open the query in query designer.
- Right click and go to the *Properties* of amount type of key figure for which you want to implement the currency translation. At the bottom there is an option available as *Currency Translation*.

Properties of the Selection/Formula

Technical Name

Description: Delivered Revenue

Display: Highlighting (No Highlighting), Hide (Always Show)

Number Format: Scaling Factor (Nothing Defined), Number of Decimal Places (From Key Figure: 0,00)

Calculations (Includes Displayed Data Only): Calculate Result As... (Nothing Defined), Calculate Single Values As... (Nothing Defined)

Cur. translation (highlighted):
 Currency Conversion Key: Release 4 Currency Conversion Typ
 Target Currency: from Variable

OK | Cancel

- Select the appropriate currency translation type from the dropdown (created in RSCUR transaction).

4. Check the syntax and save the query.

B. Steps for Formula Key Figure

1. Formula key figures don't have the option *Currency Translation* in their properties.
2. You need to create a calculated key figure with same logic as that of a formula key figure.
3. Replace a formula key figure with the calculated key figure created in step 2.
4. Right click on the properties of calculated key figure and select the appropriate currency translation type (created in RSCUR transaction).
5. Check the syntax and save the query.

Executing the query

After executing the query, the selection screen will show additional variables related to currency translation like exchange rate date, exchange rate type, target currency etc. (depending upon the preferences set for *Currency Translation Type* created in RSCUR transaction).

The screenshot shows a SAP selection screen titled "Orders with Goods Issue but no Invoice". The screen contains several input fields and buttons. The "Target Currency" field is highlighted with a blue box. Other fields include "Actual Goods Issue Date (Range, Required)", "Company Code (Multiple Single, Required)", "Cust Account Group (Selections, Optional)", "Exchange Rate Type" (set to "M"), and "Exchange Rate Date" (set to "2/11/2009"). The "Exchange Rate Date" field is also highlighted with a blue box. The "Execute" button is highlighted with a blue box. The "Check" button is highlighted with a blue box. The "Cancel (F12)" button is highlighted with a blue box.

Limitation

We can not alter the sequence of currency translation variables via query properties in the query designer. SAP says that this is a feature unfeasible in the current NetWeaver 2004s release. The variables from the currency translation type will be added to the variable screen in runtime depending on the generation process of the query.

Related Content

http://help.sap.com/saphelp_nw70/helpdata/EN/ec/076f3b6c980c3be10000000a11402f/frameset.htm

<https://www.sdn.sap.com/irj/scn/thread?messageID=539614#539614>

<https://www.sdn.sap.com/irj/scn/thread?messageID=6709533#6709533>

For more information, visit the [Business Intelligence homepage](#).

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