

## Currencies

uro Assistant is a calculator which converts 20 different currencies to euro, the European single currency, and back.

As we'll see these 20 currencies are divided into two groups - the EMU national currencies and the non-EMU currencies - and different "rules" apply to these two groups.

## Euro: the European Single Currency

On January 1, 1999 eleven European countries, gathered in what is called the Economic and Monetary Union (EMU), have adopted a single currency, the euro. These countries are Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Portugal and Spain.

Which is the euro time table? How will the transition from the 11 national currencies to the single currency take place?

- On December 31, 1998 the conversion rates between euro and EMU member countries national currencies are irrevocably fixed by the European Council. Conversion rates have 6 significant digits.
- On January 1, 1999 euro becomes official currency in the 11 participating countries.
- On January 1, 2002 euro coins and banknotes begin to circulate.
- On July 1, 2002 (at the latest) the legal tender status of national coins and banknotes is canceled.

## EMU National Currencies

The EMU national currencies are the currencies of the 11 member countries of the Economic and Monetary Union - Belgian Franc, German Mark, Spanish Peseta, French Franc, Irish Punt, Italian Lira, Luxembourgian Franc, Dutch Guilder, Austrian Schilling, Portuguese Escudo and Finnish Mark.

On the basis of the irrevocable euro conversion rates fixed on December 31, 1998 by the European Council, from January 1, 1999 EMU national currencies become non-decimal subdivisions of the European single currency, the euro, exactly as the Pfennig or the centime are (decimal) subdivisions of the German Mark or French Franc, respectively.

Another consequence of the Monetary Union is that conversion rates between different EMU national currencies are also fixed: using the irrevocable euro conversion rates, Euro Assistant can therefore calculate multiple EMU currency conversions and convert any EMU national currency to any other EMU national currency.

The following table lists the EMU national currencies, their ISO codes and their irrevocable euro conversion rates. Conversion rates have 6 significant digits.

Currency	ISO Code	Irrevocable Euro Conversion Rate
Belgian Franc	BEF	40,3399
German Mark	DEM	1,95583
Spanish Peseta	ESP	166,386
French Franc	FRF	6,55957
Irish Punt		
IEP	,787564	
Italian Lira		

ITL	1936,27	
Luxembourgian Franc	LUF	40,3399
Dutch Guilder	NLG	2,20371
Austrian Schilling	ATS	13,7603
Portuguese Escudo	PTE	200,482
Finnish Mark	FIM	5,94573

## Non-EMU Currencies

With Euro Assistant you can also convert euro to 9 non-EMU currencies: the 4 European Union currencies which for different reasons didn't join the Economic and Monetary Union (Pound Sterling, Danish Krone, Swedish Krona and Greek Drachma) and 5 "important" non-EU currencies (US Dollar, Japanese Yen, Swiss Franc, Canadian Dollar and Australian Dollar).

The 9 non-EMU currencies are defined through their euro exchange rates and this means that:

- the Euro Assistant window cannot simultaneously display more non-EMU currencies;
- if you switch from a non-EMU currency to another non-EMU currency (by acting on the "Switch Currency" submenu or the Currencies popup arrow or by clicking option-tab), all displays are automatically cleared, so that the conversion from the first to the second non-EMU currency (which would be incorrect!) is not performed. If you are nevertheless interested in calculating an approximate conversion between two different non-EMU currencies, switch currency by holding down the shift key.

Euro exchange rates of non-EMU currencies can be edited in the "Currencies" dialog box ("Currencies..." command in the File Menu). Euro Assistant requires them to range from 0,1 to 9999,99 and considers just the first 6 significant digits. An exchange rate modification date is associated to each non-EMU currency and displayed in the "Currencies" dialog box, so that you can know when you last modified each rate.

Euro Assistant's default euro exchange rates are the official ecu exchange rates on December 30, 1998 (from January 1, 1999 is 1 ecu = 1 euro). The following table lists the 9 non-EMU currencies provided by Euro Assistant, their ISO codes and their default euro exchange rates:

Currency	ISO Code	Ecu Exchange Rate (Dec 30, 1998)
Danish Krone	DKK	7,45432
Greek Drachma	GRD	329,834
Swedish Krona	SEK	9,46854
Pound Sterling	GBP	,701337
Australian Dollar		
AUD	1,91237	
Canadian Dollar		
CAD	1,81763	
Suiss Franc	CHF	1,60368
Japanese Yen	JPY	134,813
US Dollar	USD	1,17228

## Currencies Dialog Box

All information concerning Euro Assistant's currencies is gathered in the "Currencies" dialog box. To open it, choose the "Currencies..." command in the File Menu or click the Rate button in the Euro Assistant window (the button is disabled when the EUR display is active).

For each EMU national currency, the "Currencies" dialog box displays ISO code, (fixed) euro conversion rate and current rounding. For each non-EMU currency it displays ISO code, editable euro exchange rate, current rounding and date of the last exchange rate modification.

To change a non-EMU currency euro exchange rate, select it in the Currencies list box and type the new value in the Exchange Rate edit box. Then click "Save Rate". Euro Assistant saves the new exchange rate and updates the associated modification date. Notice that exchange rates must range from 0,1 to 9999,99.

The "Currencies" dialog box lets you also specify rounding values for all Euro Assistant currencies. To change the CHF rounding, for instance, select "Swiss Franc" in the Currencies list box and choose a new value in the Rounding popup menu.

## Rounding Currencies

Currency conversion always implies a rounding of the result: you generally round to 1 Pfennig (= 0,01 DEM) when converting to DEM or to 1 centime (= 0,01 FRF) when converting to FRF.

Euro Assistant's default rounding is to 1/100 of the currency's value (1 eurocent, cent, centavo, centesimo, centime, centimo, Groschen, pence, penni, Pfennig, øre, lepton, öre, rappen, sen), but a different rounding amount can be specified.

Currencies which have no subdivisions (e.g. BEF) should be rounded to their own value (e.g. 1 BEF). Another possibility is to round currencies to their smallest coin.

The following table shows the effect of different rounding amounts on the same value:

Rounding	Before	After
0,0001 ITL	1.234,56789 ITL	1.234,5679 ITL
0,001 ITL	1.234,56789 ITL	1.234,568 ITL
0,01 ITL	1.234,56789 ITL	1.234,57 ITL
0,02 ITL	1.234,56789 ITL	1.234,56 ITL
0,05 ITL	1.234,56789 ITL	1.234,55 ITL
0,10 ITL	1.234,56789 ITL	1.234,60 ITL
0,20 ITL	1.234,56789 ITL	1.234,60 ITL
0,25 ITL	1.234,56789 ITL	1.234,50 ITL
0,50 ITL	1.234,56789 ITL	1.234,50 ITL
1 ITL	1.234,56789 ITL	1.235 ITL
2 ITL	1.234,56789 ITL	1.234 ITL
5 ITL	1.234,56789 ITL	1.235 ITL
10 ITL	1.234,56789 ITL	1.230 ITL
20 ITL	1.234,56789 ITL	1.240 ITL
50 ITL	1.234,56789 ITL	1.250 ITL

Rounding amounts can be specified in the "Currencies" dialog box. The active display's rounding can be selected in the Rounding popup menu in the Euro Assistant window.

## Adding Currencies

The Euro Assistant window always displays the EUR display and at least a national currency (i.e. an EMU national currency or a non-EMU currency) display. Displays can be added until all 11 EMU national currencies plus one non-EMU currency are shown.

If you show a single national currency, you simply convert this currency to euro and back. By adding other national currencies to the Euro Assistant window, you can perform multiple conversions - see [Multiple Conversion: Euro Input](#) and [Multiple Conversion: National Currency Input](#).

To add a new currency, choose the "Add Currency" command in the File Menu. Euro Assistant inserts a new display in the Euro Assistant window. The added currency is the first enabled currency in the "Switch Currencies" submenu which is not already displayed. To switch to another currency in the new display, click it to activate it and select the desired currency in the "Switch Currency" submenu in the File Menu. Equivalently, click the corresponding popup arrow to display the Currencies menu and select a new currency.

## Removing Currencies

To remove a currency which you don't need anymore, activate the corresponding display and choose the "Remove Currency" command in the File Menu. EUR can't be removed.

## Moving Currencies

When you display more national currencies (i.e. EMU national currencies and a non-EMU currency), you might want to rearrange them in the Euro Assistant window. To move a currency to a different position, drag its flag and drop it on the flag corresponding to the desired new position. The currency will be inserted in that position. EUR can't be moved.