

---

# ***DTM for AS/400e Servers and the euro***

## **A guide for printing amounts in euro**

---

### **1. Introduction**

This document contains essential information for understanding the support for the euro and the euro symbol in DTM for AS/400e Servers.

#### **1.1 What is the euro?**

The euro is the new single currency used in the majority of countries of the European Union. The euro has been a feature of the financial landscape since 1 January 1999. On 1 January 2002, it has become a physical reality across Europe when the new euro banknotes and coins were introduced.

The euro area encompasses those Member States of the European Union in which the euro has been adopted as the single currency and in which a single monetary policy is conducted under the responsibility of the decision-making bodies of the European Central Bank. The euro area currently comprises Belgium, Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, the Netherlands, Austria, Portugal and Finland.

The graphic symbol for the euro (€) was inspired by the Greek letter epsilon and refers to the first letter of the word "Europe". The parallel lines represent the stability of the euro. The official abbreviation for the euro is EUR, which has been registered with the International Organization for Standardization (ISO) and is used for business, financial and commercial purposes.

#### **1.2 How to print euro amounts?**

According to the European Central Bank there are two correct notations when printing euro amounts:

w Print the amount using two decimals, followed by a blank and the official abbreviation for the euro (EUR).

**Example:** 123,00 EUR

w Print the euro symbol (€), followed by a blank and the amount using two decimals.

**Example:** € 123,00

---

## 2. Using the official abbreviation: EUR

One option to print a euro amount is to print the amount using two decimals, followed by a blank and the official abbreviation for the euro (EUR).

**Example:** 123,00 EUR

This notation does not require any specific support in DTM for AS/400e Servers, assuming that your database used during the merge contains the correct euro amount. There are two ways this notation can be obtained.

### 2.1 Hardcoded text

In any shell document the following combination of text and instructions can be used:

```
Amount due: <DataField> EUR
```

The parameters of the Datafield instruction should contain the following information:

- w The datasource to be used during the merge
- w Any additional numeric editing to print two decimals (only required if the field in the database is not yet formatted correctly).

**Remark:** Notice the blank between the datafield instruction and the characters "EUR".

### 2.2 Numeric editing of datafields

In any shell document the following instruction can be used:

```
Amount due: <DataField>
```

The parameters of the Datafield instruction should contain the following information:

- w The datasource to be used during the merge
- w Numeric editing should be enabled using "EUR" as the right currency symbol.
- w Any additional numeric editing to print two decimals (only required if the field in the database is not yet formatted correctly).

---

## 3. Using the graphic symbol: €

Another option to print a euro amount is to print the graphic symbol for the euro (€), followed by a blank and the amount using two decimals.

**Example:** € 123,00

Assuming that your database used during the merge contains the correct euro amount, there are two ways this notation can be obtained.

### 3.1 Using hardcoded text

In any shell document the following combination of text and instructions can be used:

```
Amount due: € <DataField>
```

The parameters of the Datafield instruction should contain the following information:

- w The datasource to be used during the merge
- w Any additional numeric editing to print two decimals (only required if the field in the database is not yet formatted correctly).

**Remark:** Notice the blank between the euro symbol and the datafield instruction.

### 3.2 Using numeric editing of datafields

In any shell document the following instruction can be used:

```
Amount due: <DataField>
```

The parameters of the Datafield instruction should contain the following information:

- w The datasource to be used during the merge
- w Numeric editing should be enabled using “€” as the left currency symbol.
- w Any additional numeric editing to print two decimals (only required if the field in the database is not yet formatted correctly).

### 3.3 The euro symbol in the 5250 User Interface

Starting from DTM for AS/400e Servers V1R2M2 PTF 1F01298, the 5250 User Interface fully supports the euro symbol.

In general the euro symbol can be entered using the combination of the keys *AltGr* and *e*.

#### **5250 workstation**

If you are using a traditional 5250 workstation you need to make sure the following parameters are specified correctly in the device description being used:

- w The keyboard language type should be set to a value supporting the euro symbol. For example, the correct value for Belgium is BLM (Belgium Multinational Euro Currency), and no longer BLI (Belgium Multinational - B). There should be a keyboard language type supporting the euro symbol for your specific country.
- w The character identifier should also be set to a value supporting the euro symbol. This can be done easily by specifying the special value \*KBDTYPE.

Additionally the coded character set identifier (CCSID) of the interactive job should be set to a value supporting the euro symbol. For example, the correct value for Belgium is 1148 (International ECECP (Euro)), and no longer 500 (International #5).

#### **5250 emulation software**

If you are using 5250 emulation software you need to make sure that the host code page is set up correctly in the local session configuration. It should be set to a value supporting the euro symbol. For example, the correct value for Belgium is 1148 (International ECECP (Euro)), and no longer 500 (International #5).

Additionally the coded character set identifier (CCSID) of the interactive job should be set to a value supporting the euro symbol. For example, the correct value for Belgium is 1148 (International ECECP (Euro)), and no longer 500 (International #5).

### 3.4 The euro symbol in the MS Word User Interface

Starting from DTM for AS/400e Servers V1R2M2 PTF 1F01334 and MS Word User Interface 1.2.7, the MS Word User Interface fully supports the euro symbol.

In general the euro symbol can be entered using the combination of the keys *AltGr* and *e*.

**Remark:** Note that not all PC fonts contain the euro symbol. If a font does not contain the euro symbol it will be displayed as a rectangle. Even though the euro symbol is not displayed it is present in the document, it will be saved and it will be printed correctly. To avoid confusion it is recommended to only use PC fonts containing the euro symbol.

### 3.5 Printing documents using the euro symbol

In order to print the euro symbol correctly the coded character set identifier (CCSID) of the interactive job should be set to a value supporting the euro symbol. For example, the correct value for Belgium is 1148 (International ECECP (Euro)), and no longer 500 (International #5).

### 3.6 Exporting documents using the euro symbol

In order to export the euro symbol correctly to an XML file or a DB2/400 database file, the coded character set identifier (CCSID) of the interactive job should be set to a value supporting the euro symbol. For example, the correct value for Belgium is 1148 (International ECECP (Euro)), and no longer 500 (International #5).

---

## 4. Automatic currency conversion

If your database only contains the amount to be printed in your local currency and not the euro value, you can use DTM for AS/400e Servers to automatically calculate and print the euro value in your documents.

This can be done by using the Print Variable instruction. This instruction has basically the same functionality as the Datafield instruction (to retrieve a field from a database), but it adds the capability to perform a calculation before printing the field.

### Example

Suppose you have the following combination of text and instructions in your shell document:

```
Amount due: <Datafield> BEF
```

The datafield instruction refers to a field containing a value in the local currency (Belgian Franc). After the merge the result printed would be something like:

```
Amount due: 123 BEF
```

Next you can replace the Datafield instruction by a Print Variable instruction, set the numeric editing to two decimal places, specify that the amount to be printed should be the value retrieved from the database divided by 40,3399 (the exchange rate of Belgian Franc versus euro) and change the fixed text behind the instruction, like this:

```
Amount due: <PrintVar> EUR
```

After the merge the result printed would be something like:

```
Amount due: 3,05 EUR
```

---

## 5. References

- w European Central Bank euro website at  
<http://www.euro.ecb.int/>
- w Belgian government euro website at  
<http://www.euro.be/>
- w IBM eserver iSeries euro website at  
<http://www.ibm.com/eserver/series/euro>
- w IBM eserver iSeries Globalization website at  
<http://www-1.ibm.com/servers/eserver/series/software/globalization/>
- w Microsoft euro website at  
<http://www.microsoft.com/euro.asp>
- w DTM for AS/400e Servers V1R2 Manual
- w Inventive Designers website at  
<http://www.inventivedesigners.com/>

---

## 6. Contact information

For more information contact

**Inventive Designers nv**

Sint-Bernardsesteenweg 552  
B2660 Hoboken  
Belgium

2370 West Highway 89A, Suite 11  
Sedona, Arizona 86336-5349  
USA

Tel : +32 (0) 3 821 01 70

+1 (928) 203 1199

Fax : +32 (0) 3 821 01 71

+1 (928) 203 1188

[info@inventivedesigners.com](mailto:info@inventivedesigners.com)

<http://www.inventivedesigners.com/>