WorldSoftware®

A7.3 CU10
Implementation Guide
featuring the euro

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Release
A7.3 CU10
J.D. Edwards World Source Company
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Denver, CO 80237

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Release A7.3 CU10... What's in It for Me?

Release A7.3 CU10 includes significant enhancements for the new European common currency, the euro, as well as general corrections.

Although many of the enhancements in A7.3 CU10 were designed for countries participating in the European common currency, companies in other countries might want to use the enhancements, which include alternate currency receipt and payment processing. Consult with your accounting department to determine whether the enhancements are applicable to your business.

Release A7.3 CU10 includes enhancements for over 170 programs (these enhancements were first available in A7.3 CU9). One of the enhancements that has widespread impact is the no inversion/triangulation method of exchange rate calculations. If you implement no inverse/triangulation, you must implement all 170 programs.

Make sure that you fully understand the implications of loading this cumulative update and how it might affect your custom programs and system environment. Even if you do not need the new functionality that is in this cumulative update, you will want to do an impact analysis before upgrading to CU10, especially if your environment is heavily customized.
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Euro Overview

The European Union (EU) is introducing a new monetary unit called the euro and will subsequently phase out the national currencies of all Economic and Monetary Union (EMU) member nations.

This document describes the following:

- Economic and Monetary Union implementation
- EU and EMU member nations
- Legal and business requirements for the euro
- Issues related to the introduction of the euro
- J.D. Edwards software solution

Economic and Monetary Union Implementation

During 1995 in Madrid, Spain, the European Council agreed that the single European currency would be named the euro in all official EU languages. It also agreed that the EMU would be introduced in the following phases:

- Phase A: EMU Launch
- Phase B: Effective Start of the EMU
- Phase C: Definitive Changeover to the Euro
EMU Timetable

The three phases are illustrated and described in the following timetable.

- Exchange rates are irrevocably fixed between EMU member currencies and the euro on 31 December 1998
- Euro exists as a transactional currency only
- National coins and banknotes continue to be used as legal tender
- Private organizations, including commercial banks, transact business in the euro or national currencies
- Euro replaces the current European Currency Unit (ECU)
- EMU member nations transfer monetary responsibilities to the European System of Central Banks (ESCB)

<table>
<thead>
<tr>
<th>Phase A</th>
<th>Phase B</th>
<th>Phase C</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMU Launch Through December 1998</td>
<td>Effective Start of the EMU 1 January 1999 through 31 December 2001</td>
<td>Definitive Changeover to the Euro 1 January through (at the latest) 30 June 2002</td>
</tr>
</tbody>
</table>


- Initial member nations selected to participate in EMU
- European Central Bank (ECB) established
- Euro bank notes and coins are issued
- National notes and coins are withdrawn from circulation
- National currencies in contracts are converted to euros
- Accounting systems must be denominated in the euro as the base currency
- Legal tender status of EMU member currencies is terminated no later than 30 June 2002
EU and EMU Member Nations

The following table shows the year each nation was admitted to the EU and whether the nation is also an EMU member nation.

<table>
<thead>
<tr>
<th>Year Admitted</th>
<th>EU Member Nations</th>
<th>EMU Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>Belgium</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>France</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Italy</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Luxembourg</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Netherlands</td>
<td>Yes</td>
</tr>
<tr>
<td>1973</td>
<td>Denmark</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Republic of Ireland</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>United Kingdom</td>
<td>No</td>
</tr>
<tr>
<td>1981</td>
<td>Greece</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Portugal</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Spain</td>
<td>Yes</td>
</tr>
<tr>
<td>1995</td>
<td>Austria</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Finland</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Sweden</td>
<td>No</td>
</tr>
</tbody>
</table>

Legal and Business Requirements for the EMU

For several years, the European Commission has worked to formulate an accounting framework for the EMU environment. One of its goals is to improve comparability of consolidated accounts in the single market. To this end, the European Commission has proposed an initiative to align, where possible, EU accounting rules with international accounting standards promoted by the International Accounting Standards Committee (IASC) and the International Organization of Securities Commissions (IOSCO). The European Commission has also worked to formulate guidelines for the conversion to and operation in the euro.

Additionally, industry groups such as the Fédération des Experts Comptables Européens (FEE), which represents the accountancy profession in Europe, and the Business Application and Software Developers Association (BASDA), an industry association, have been working to formulate guidelines for software development standards regarding the euro.
To prepare for the monetary union, companies that operate in EMU member nations should do the following:

- Develop an accounting and reporting strategy for the transition period from January 1999 through December 2001
- Establish policies for transacting in specific currencies with major trading partners
- Establish policies for transacting and reporting in specific currencies with subsidiaries
- Decide when to convert the company’s base currency to the euro

Companies may begin transacting business in the euro on 1 January 1999, although there is no obligation to do so. This no compulsion, no prohibition principle is a key factor in complicating business transactions during the transition period. A creditor cannot require a debtor to deal in a specific currency unless agreed upon in a contract.

Some suppliers will want to invoice in euros from the beginning, while others will convert as late as possible. Customers will also have varying preferences for transacting business in euros. Essentially, it means that companies must be prepared to handle multiple currencies at the transaction level beginning 1 January 1999, regardless of when they plan to change over their accounting systems.

**Issues Related to the Introduction of the Euro**

The following topics describe some specific issues related to the introduction of the euro.

**Dual Base Currencies**

With the introduction of the euro, there will be a period of time when EMU member nations will have two legal currencies: their national currency and the euro.

In this environment, companies in EMU member nations may need to manage dual currencies for operational as well as reporting purposes. This means that daily business activities such as generating invoices and writing payments may be transacted and recorded in both their national currency and the euro. In addition, subsidiaries of global companies doing business in more than one EMU member nation may need to manage up to three currencies: corporate, national, and the euro.
Exchange Rate Calculations

After 31 December 1998, international currencies will be quoted as an exchange rate against the euro, and not against the national EMU currencies. The euro rates will be quoted as 1 euro = xxxxx national currency units. The inverse rate will no longer be allowed. That is, there will not be rates published as, for example, 1 DEM = xxxxx EUR.

Amounts that are converted from one national currency to another must first be converted to the euro and then converted from the euro to the other national currency (triangulation). The European Commission has expressly stated that an alternative method of calculation cannot be used unless it produces the same result.

For EMU member currencies, this means there are now two exchange rates involved when converting amounts from one currency to another. For example, when converting from the German deutschemark to the French franc, one calculation is the based on the exchange rate between the duetsche mark and the euro, and the other is based on the exchange rate between the euro and the franc.

Rounding

When converting a currency amount to the euro using triangulation, the converted amount cannot be rounded to less than three decimals for EMU member currencies. Strict application of conversion rates will inevitably lead to fractional euro values that require price rounding. This could yield significant percentage price changes and impact profitability for low-margin, high-volume industries.

Realization

As of 31 December 1998, the exchange rates between EMU member currencies and the euro will be irrevocably fixed. Because of the fixed rates, any potential gains and losses due to exchange rate fluctuations prior to this date can be calculated when the rates are fixed.

The losses on open transactions must be realized at the end of December 1998. The gains are regulated by each EMU member country.
Third Currency Payments and Receipts

According to the no compulsion, no prohibition principle, suppliers may invoice in national currencies or euros from 1 January 1999 through 31 December 2001, and buyers may pay in national currencies or euros through, at the latest, 30 June 2002. Companies must be prepared to process customer receipts in a currency different from the original transaction currency or base currency as of 1 January 1999.

However, companies can pay supplier invoices in their national currency through, at the latest, 30 June 2002. For example, a French company that bills a German company in euros could receive payment in deutsche marks, as they have in the past.

Dual Pricing

To assist EMU consumers in getting accustomed to a single currency during the transition period, companies will be encouraged to provide dual pricing of goods and services at the consumer level. Trading partners will also be encouraged to do the same by providing dual price lists in their product catalogues. It is believed that by developing a sense for prices in the euro and learning to convert national currencies to euros, consumers will quickly see the benefits of the monetary union.

Conversion of Historical Data

When a company is ready to convert its base currency to the euro, some historical and current data in monetary amount fields will be converted. Even after the period of dual currencies, a company might need additional historical information restated in euros for comparative reporting.

J. D. Edwards Software Solution

J.D. Edwards is well positioned to support the requirements for the implementation of the euro. Much of the functionality required for implementation of the euro already exists in WorldSoftware. This functionality includes dual currency, multi-currency balance restatement, and multi-currency transaction processing. In addition to the existing functionality, J.D. Edwards has developed software enhancements for the euro-specific requirements.

Existing Software Functionality

The following briefly describes the existing WorldSoftware functionality that you can use for euro transaction processing.
Multi-Currency General Ledger Balance Restatement
Companies can maintain an unlimited number of currencies at the account balance level. You can review side-by-side currency amounts for account comparisons online and on reports.

Dual Currency General Ledger Detail Restatement
In addition to managing multiple currencies at an account balance level, companies can maintain two base currencies at the transaction level. A German company that chooses to operate in its national currency could continue using deutsche marks in day-to-day business and restate all general ledger transactions to the euro for reporting and business analysis purposes.

Multi-Currency Customer and Supplier Transaction Processing
Companies are able to transact business in the currency of their choice for customer and suppliers, while tracking some statistical information in the euro. A German deutschmark company, for example, can invoice a French customer in francs.

By using a specific field in the customer and supplier master records, certain summary information can be stored in euros, including customer credit limits and year-to-date invoice and voucher amounts.

Multi-Currency Payment Processing
Companies can centralize payment processing for multi-national operations by associating payment groups with specific bank accounts. All vouchers in a particular currency can be paid from a bank account that deals in that currency.

Multi-Currency Draft Processing for A/P
Companies can process drafts in a multi-currency. This multi-currency functionality, which makes draft processing in the euro possible, is included in manual and automatic payment processing.

Multi-Currency Pricing
Companies have the flexibility to establish base prices and advanced price adjustments by customer, customer groups, product, and product groups in unlimited currencies.

Dual Currency Fixed Asset Valuation
Companies can simultaneously record fixed assets at the detail level in different ledgers for reporting in two currencies. Any fixed assets that are acquired during the euro transition period can be accounted for in both a company’s national currency and the euro.
Flexible Fixed Asset Depreciation Rules

Using parallel ledger types, companies can depreciate assets in the euro and their base currency with user-defined, date-effective depreciation rules that can be different for each ledger. This is a significant advantage for rapid implementation of any new rules that may be established by EMU member nations.

New Software Functionality

The following lists the new software functionality, or enhancements, that J.D. Edwards has developed for euro-specific requirements:

No Inverse and Triangulation

As of 31 December 1998, the only official published exchange rates for EMU member nations will be to the euro. There will no longer be an “official” rate between two EMU member currencies, such as French francs and German deutschmarks.

In accordance with rules defined by the European Commission, the inverse of the officially published rates can not be used (no inverse). Companies will perform exchange rate calculations from one EMU member currency to another by first converting to the euro (triangulation).

The Set Daily Transaction Rates form has been enhanced to provide no inverse and triangulation functionality. Programs that calculate and use exchange rates have been enhanced to follow the no inverse/triangulation rules. A new user defined code table (00/EU) designates EMU members.
| **Euro Realization** | According to EU regulations, companies in all EMU member nations must realize losses on exchange differences between EMU member currencies by 31 December 1999. Each EMU member nation has its own guidelines for when gains on exchange differences must be realized.  

The Currency Gains and Losses program has been enhanced to realize gains and losses for open EMU currency transactions for A/R and A/P over an extended period of time.  

In the reporting period that ends on 31 December 1998, all companies must realize losses (and possibly gains) on exchange differences for monetary accounts, regardless of which currency is used for accounting purposes.  

The Monetary Account Valuation program has been enhanced to create gain and loss journal entries without creating revering entries. This allows you to calculate a one-time gain or loss on your monetary accounts. |
|---|---|
| **Customer and Supplier Master Conversion** | As your company and other EMU member companies convert to the euro, you will convert their address book amounts and default currencies to the euro. You can do this on an individual basis, or you can convert multiple customers and suppliers at a time.  

The Customer Master and Supplier Master Conversion programs have been created to automatically convert customer and supplier address book amounts and default currencies to the euro. |
| **Alternate Currency Processing** | Companies must be prepared to process customer receipts and supplier payments in a currency different from the original transaction currency or their company’s base currency.  

The receipts entry and automatic payment processing programs have been enhanced to process receipts and payments in the euro, or other alternate currency. |
Price Generation
As your company and other EMU member companies convert to the euro, you will convert price and cost records to the euro. You can do this on an individual basis, or you can convert multiple price and cost records at the same time.

The Generate Purchase Price by Currency and Generate Price Adjustments by Currency programs have been created to automatically copy existing price and cost records, calculate new costs, and create new records in the euro.

Euro Display
Before, during, and after converting to the euro, you can view amounts in the euro, regardless of whether a transaction was entered in a foreign or domestic currency. This will help companies prepare for the transition to the euro as their base currency.

Many inquiry and report programs have been enhanced to provide the ability to view amounts in an as if currency, which is a currency other than the currency in which they were actually stored. This enhancement is called the euro display.

Electronic Formats
With the introduction of the irrevocably fixed euro exchange rate, several EMU member nations are creating new electronic formats, while others are enhancing their existing formats.

The euro impacts only the domestic payment formats for automatic debits and accounts payable. Many of the EMU formats are being enhanced to support the domestic currency and the euro.

The A/R and A/P electronic format processing options have been enhanced to accommodate the EMU electronic format changes.

Intrastat Reporting
Each EMU member nation will continue to determine its own Intrastat requirements. Some nations will change their format to more easily accommodate the euro.

The Intrastat programs have been enhanced so that your company can continue to comply with the reporting requirements for your country.

Each of these software enhancements is described in detail in this guide. The base currency conversion (E9), which converts a company's base currency to the euro, is described in another guide.
Exchange Rates and the Euro

On 1 January 1999, the euro will be introduced as a new monetary unit. This new currency will impact many European countries, especially EMU member countries and any countries with which they do business. The euro currency will fluctuate against world currencies, but not against EMU member currencies. The regulations for this new currency and the associated EMU national currencies will affect how exchange rates are handled.

Exchange Rates and Calculations

Prior to the introduction of the euro and the new exchange rate regulations, J.D. Edwards WorldSoftware calculated exchange rates by using the multiplier or divisor method to derive the unknown side of a transaction. This meant that the inverse of a rate was used for some exchange rates. With the euro, the inverse rate can no longer be used. Only the rate that corresponds to one euro is valid.

One fixed exchange rate will be published for each EMU member currency. The rate will be published with six significant figures (not decimal places). It will always be published as:

$$1 \text{ EUR} = \text{xxxxxx national currency unit}$$

For example, 1 EUR = 1.98166 DEM or 1 EUR = 1941.46 ITL. The only official published rates are from the euro. You will not see an official published rate to the euro, such as 1 DEM = 0.504209 EUR.

There is no official exchange rate between two EMU currencies, such as German deutschmarks and French francs. Instead, the fixed exchange rate is used in both directions, converting from a national currency to the euro and converting from the euro to a national currency.

The European Commission has defined strict rules for EMU member nations and how they perform exchange rate calculations. To adhere to the rules, J.D. Edwards software has incorporated the following functionality:

- No inverse
- Triangulation
Checklist: Set Up Euro Currency Relationships

Complete the items in the following checklists to set up your exchange rates for the euro. These are one-time only tasks:

- [ ] Activate multi-currency (if not already activated)
- [ ] Set up a currency code for the euro
- [ ] Set up EMU member currency table
- [ ] Set up processing options for Set Daily Transaction Rates and Speed Transaction Rates Entry
- [ ] Set up exchange rates between EMU member currencies and the euro
- [ ] Set up triangulation for EMU member currencies

Topics in This Section

This section, *Exchange Rates and the Euro*, includes the following topics:

- No Inverse and Triangulation
- Before Setting Up Euro Currency Relationships
- Setting Up Euro Currency Relationships
No Inverse and Triangulation

The European Commission has defined strict rules for Economic and Monetary Union (EMU) member nations and how they perform exchange rate calculations. To adhere to the rules, J.D. Edwards software has incorporated the no inverse and triangulation functionality.

Some of the rules that affect exchange rate calculations include:

- All EMU exchange rates will be published to six significant figures. For example, 1 EUR = 0.765432 IEP.
- The officially published euro exchange rates are used for calculations between EMU member currencies and other currencies.
- EMU member currencies must calculate amounts through the euro using triangulation.
- Cross rates are allowed in exchange rate calculations only if they provide the same result as triangulation.
- Spot rates are not used on transactions between two EMU member currencies.

This topic describes the following:

- No inverse
- Explanation of exchange rate methods
- Triangulation
- The euro in a multi-company environment
- Application outside of the EMU
Activating the triangulation functionality is irreversible. Once you activate it, you cannot turn it off. Make sure you understand the no inverse and triangulation functionality and determine whether it relates to your business before activating it.

**No Inverse**

In accordance with rules established by the European Commission, EMU member nations can no longer use the inverse of the officially published rates as of 1 January 1999. The J.D. Edwards term for this legal requirement is the no inverse rule. The no inverse rule minimizes the possibility of rounding differences that can sometimes occur when using the divisor or multiplier method of exchange rate calculation. Any rounding differences that might occur with the no inverse method of exchange rate calculation are usually immaterial.

European Commission legislation states the following:

- Economic Council regulations specifically prohibit the use of inverse rates for converting amounts between a national currency and the euro.
- The EU national banks will no longer make rates available for member national currencies to any currency other than the euro. For example, the DEM to FRF, and DEM to USD exchange rates will no longer exist.

As of 31 December 1998, one official rate for each currency will be published and used for calculating currency conversions. (Any euro exchange rates published before that date are based on estimates. This means that the examples that appear in this documentation are based on exchange rate estimates only.)

For example, the German deutschmark is irrevocably fixed to the euro at an exchange rate of 1 EUR = 1.98166 DEM (unofficial rate). Likewise, the French franc is irrevocably fixed at a rate of 1 EUR = 6.63258 FRF (unofficial rate). Thus, the German deutschmark is fixed to the euro and the French franc is fixed to the euro. In essence, the deutsche mark and the franc are fixed to each other, even though there is no exchange rate published between the deutsche mark and the franc. This will be the case with the exchange rates between the euro and the currencies of EMU member nations.
Example: Converting Irish Pounds to Euro

In the following example:

- The first calculation converts Irish pounds (IEP) to the euro, using the no inverse method.
- The second calculation uses the reciprocal rate, which is not used by EMU member currencies. Notice the rounding differences that occur when the reciprocal rate is used.

Convert:

<table>
<thead>
<tr>
<th>IEP</th>
<th>500.00</th>
<th>5,000.00</th>
<th>50,000.00</th>
<th>500,000.00</th>
<th>5,000,000.00</th>
</tr>
</thead>
</table>

Using the “no inverse rule”:
1 EUR = 0.765432 IEP (unofficial rate)

<table>
<thead>
<tr>
<th>EUR</th>
<th>653.23</th>
<th>6,532.26</th>
<th>65,322.59</th>
<th>653,225.89</th>
<th>6,532,258.91</th>
</tr>
</thead>
<tbody>
<tr>
<td>= 500 / 0.765432</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>← = 653.23</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Using the reciprocal:
Reciprocal = 1.3064517814776

<table>
<thead>
<tr>
<th>6 digits - 1.30645</th>
<th>653.23</th>
<th>6,532.25</th>
<th>65,322.50</th>
<th>653,225.00</th>
<th>6,532,250.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 digits - 1.306452</td>
<td>653.23</td>
<td>6,532.26</td>
<td>65,322.60</td>
<td>653,226.00</td>
<td>6,532,260.00</td>
</tr>
<tr>
<td>8 digits - 1.3064518</td>
<td>653.23</td>
<td>6,532.26</td>
<td>65,322.59</td>
<td>653,225.90</td>
<td>6,532,259.00</td>
</tr>
<tr>
<td>9 digits - 1.30645178</td>
<td>653.23</td>
<td>6,532.26</td>
<td>65,322.59</td>
<td>653,225.89</td>
<td>6,532,258.90</td>
</tr>
<tr>
<td>= 500.00 x (1 / 0.765432)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>= 500.00 x 1.30645</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>← = 653.23</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Explanation of Exchange Rate Methods

There are three exchange rate methods for calculating amounts from one currency to another. They are:

- Divisor Method
- Multiplier Method
- No Inverse Method

The first two methods, Divisor and Multiplier, do not apply when calculating amounts between two EMU member currencies. The third method, No Inverse, is the new exchange rate method that applies to EMU member currencies, as defined by the EU. While non-EMU member countries may choose to use the no inverse method of exchange rate calculation, the no inverse method is required for EMU member countries that transact business with one another.

These three exchange rate methods are illustrated and described in the following examples, which are based on DEM to EUR and EUR to DEM exchange rates.
**Divisor Method**

The divisor method (Z) divides the foreign amount by the exchange rate to calculate the domestic amount.

<table>
<thead>
<tr>
<th></th>
<th>Multiplier Method (Y) and Rate</th>
<th>Divisor Method (Z) and Rate</th>
<th>Override Conversion Method (Y or Z)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUR to DEM</td>
<td>1.98166</td>
<td>.504627</td>
<td></td>
</tr>
<tr>
<td>DEM to EUR</td>
<td>.504627</td>
<td>1.98166</td>
<td></td>
</tr>
</tbody>
</table>

The system uses the divisor rate when calculating in either direction from EUR to DEM and from DEM to EUR. Notice that the EUR to DEM divisor rate (1/1.98166 = .504627) is the inverse of the DEM to EUR divisor rate (1.98166).

**Multiplier Method**

The multiplier method (Y) multiplies the foreign amount by the exchange rate to calculate the domestic amount.

<table>
<thead>
<tr>
<th></th>
<th>Multiplier Method (Y) and Rate</th>
<th>Divisor Method (Z) and Rate</th>
<th>Override Conversion Method (Y or Z)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUR to DEM</td>
<td>1.98166</td>
<td>.504627</td>
<td></td>
</tr>
<tr>
<td>DEM to EUR</td>
<td>.504627</td>
<td>1.98166</td>
<td></td>
</tr>
</tbody>
</table>

The system uses the multiplier rate when calculating in either direction from EUR to DEM and from DEM to EUR. Notice that the DEM to EUR multiplier rate (1/1.98166 = .504627) is the inverse of the EUR to DEM multiplier rate (1.98166).

**No Inverse Method**

The no inverse method uses the divisor rate when calculating to the euro and the multiplier rate when calculating from the euro. It does not use the inverse rate when calculating in the opposite direction, as do the multiplier and divisor methods. This is why it is called the no inverse method.
The no inverse method is sometimes referred to as the override conversion method because it overrides the multiplier or divisor method (on the Set Multi-Currency Option form), when it is set up.

<table>
<thead>
<tr>
<th></th>
<th>Multiplier Method (Y) and Rate</th>
<th>Divisor Method (Z) and Rate</th>
<th>Override Conversion Method (Y or Z)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EUR to DEM</strong></td>
<td>blank</td>
<td>1.98166</td>
<td>Z</td>
</tr>
<tr>
<td><strong>DEM to EUR</strong></td>
<td>1.98166</td>
<td>blank</td>
<td>Y</td>
</tr>
</tbody>
</table>

The system uses the no inverse method which follows the EU regulation that requires that the inverse of exchange rates *not* be used when calculating amounts in the other direction.

Notice that the override conversion method for EUR to DEM is Z (divisor) in this example. It *cannot* be Y because that would require using the inverse rate (1/1.98166), which is not allowed on transactions between EMU member currencies. Notice that the override conversion method for DEM to EUR is Y (multiplier).

Both methods Y and Z use the same exchange rate amount, 1.98166. Since the inverse rate is not valid, they appear as blank.

**Triangulation**

If two companies that transact business with one another are both in EMU member countries, they must calculate their amounts *through* the euro. For example, a German and a French company transact business. To calculate an amount from DEM to FRF, they must first calculate DEM to EUR and then EUR to FRF. In this way, the DEM to FRF rate is calculated *through* the euro.

The currency calculation method between DEM and FRF is called triangulation. Triangulation must exist whenever EMU member companies transact business *with one another*, unless a company uses a cross rate that produces the same result as triangulation. To follow the rules of triangulation, the euro is used as a middle step when restating an EMU currency to any other currency other than the euro.
The following graphic provides a visual representation of triangulation:

![Triangulation Diagram](image)

Triangulation uses the divisor rate \( Z \) to convert \textit{to} the euro and the multiplier rate \( Y \) to convert \textit{from} the euro.

Because spot rates are irrevocably fixed to the euro, spot rates are not used on transactions between two EMU member currencies that triangulate through the euro. However, spot rates can be used on transactions between an EMU and a non-EMU member currency. Companies must decide whether to set up triangulation between EMU and non-EMU member currencies or continue to use cross rates. For example, a German company must decide whether to set up triangulation between the DEM (EMU) and USD (non-EMU) currencies or continue to use cross rates for those currency relationships.

**Example: Calculating German Deutschmarks to French Francs**

To perform a currency calculation between the DEM and FRF, you must first calculate DEM to EUR (step 1) and then calculate EUR to FRF (step 2).
The following graphic shows the two steps involved in this calculation.

Notice that the euro amount in the example shows as seven decimal places. That is because the AS/400 performs calculations up to that number. Do not confuse those calculations with the exchange rates, which are published as six significant figures.

**The Euro in a Multi-Company Environment**

After you implement the euro enhancements, no inverse and triangulation functionality are available for your use. This does not mean that you have to use triangulation to calculate all exchange rates. If you use triangulation for some currency relationships, it does not mean that you have to use it for all currency relationships within a company. You control whether a currency relationship uses triangulation.

If you have several companies operating in one environment, all companies have the euro functionality available to them. The currency relationships that you set up apply to all companies in the environment. If you activate triangulation for EMU member currencies only, companies with a non-EMU base currency are not impacted.

**Application Outside of the EMU**

Companies outside of the EMU can use the no inverse method to calculate amounts between currencies. The no inverse method reduces the rounding errors that can occur when working with large amounts using the multiplier or divisor method.
Companies outside of the EMU can do either of the following when transacting business with an EMU member nation:

- Set up a currency relationship between the EMU and non-EMU currency using triangulation. First set up the EMU to EUR and EUR to EMU currency relationships, using the no inverse method. Then set up triangulation for the EMU and non-EMU currency relationship.

- Set up exchange rates for the EMU and non-EMU currency relationships, as usual, and continue to use cross rates.

Companies outside of the EMU can use the triangulation method to calculate amounts from an EMU to a non-EMU currency. Triangulation allows spot rates on transactions between these currencies, however spot rates are not used between two EMU member currencies.
Before Setting Up Euro Currency Relationships

Make sure you understand the no inverse rule and triangulation before you set up euro currency relationships. Once you activate this functionality, you cannot turn it off. See *No Inverse and Triangulation* for more information.

Before you set up euro currency relationships, you must complete several tasks. These tasks are described in the following:

- Activating multi-currency
- Setting up a currency code for the euro
- Setting up EMU member currency table
- Setting up processing options
- Verifying no inverse and triangulation functionality
Activating Multi-Currency

From the Multi-Currency Setup menu (G1141), choose Set Multi-Currency Option.

Set the Multi-Currency Conversion field to Y (multiplier) or Z (divisor).
Setting Up a Currency Code for the Euro

From the Multi-Currency Setup menu (G1141), choose Designate Currency Codes.

Set the Display Decimals field to 2 for the euro.

Setting Up EMU Member Currency Table

From the Multi-Currency Setup menu (G1141), choose EMU Member Setup.

You must set up each EMU member currency in a user defined code table (00/EU). This table serves two purposes:

- Determines whether spot rates are valid on transactions. If a transaction is between two EMU currencies that exist in this table, spot rates are not valid.
- Prevents additional exchange rates from being entered between EMU member currencies. If a currency exists in this table, you cannot enter an exchange rate after the override effective date as long as you set the appropriate processing option for the following programs:
  - Set Daily Transaction Rates
  - Speed Transaction Rates Entry
This table contains default currency codes and effective dates. Verify the existing values and add or change them as necessary. You must enter a valid currency code for the euro (EUR) in this table.

You enter the effective date for each currency in the Special Handling Code field in the detail area (F4). Entering an effective date now allows you to add other currencies that join the EMU at a later time.
The effective date should be the same as the override effective date on the Set Daily Transaction Rates form. You must enter the effective date in the following format, regardless of your date preferences:

DD/MM/YYYY

The date must be entered in this format because the Special Handling Code field is a text field, not a date field.

**Setting Up Processing Options**

Before you set up euro currency relationships, you must set up processing options for the following programs:

- Set Daily Transaction Rates
- Speed Transaction Rates Entry

**Set Daily Transaction Rates**

From the Multi-Currency Setup menu (G1141), choose the processing options for Set Daily Transaction Rates.

Set up the processing options for euro functionality as follows:

- To display the fields that allow no inverse and triangulation functionality, enter 1. Entering 1 does not activate triangulation. Triangulation is activated when you enter a currency in the Triangulation Currency field on the Set Daily Transaction Rates form.

For security purposes, J.D. Edwards recommends that you remove the value for this processing option after you set up currency relationships for no inverse and triangulation. This way, the no inverse and triangulation fields will no longer display, avoiding any erroneous entries by users.

- To prohibit additional exchange rates from being entered between EMU currencies after the override effective date, enter 1.

**Speed Transaction Rates Entry**

From the Multi-Currency Processing menu (G11), choose the processing options for Speed Transaction Rates Entry.
Set up the processing options for euro functionality as follows:

- To use the same processing option values as Set Daily Transaction Rates (P00151), enter version ZJDE0002 (euro functionality). Version ZJDE0001 is the default (no euro functionality).

  You can access the Set Daily Transaction Rates form by pressing F5 from Speed Transaction Rates Entry.

- To display the fields that allow no inverse and triangulation functionality, enter 1.

**Verifying No Inverse and Triangulation Functionality**

From the Multi-Currency Setup menu (G1141), choose Set Daily Transaction Rates.

To verify that the no inverse and triangulation functionality is available for your use, make sure that the following fields display on Set Daily Transaction Rates:

- Triangulation Currency
- Override Conversion Method
- Prohibit Spot Rates
- Override Effective Date

These four fields appear under the Contract (Addr) field.
Setting Up Euro Currency Relationships

You must set up exchange rates for EMU member currencies before you set up EMU member currencies for triangulation.

This topic describes the following:

- Setting up exchange rates for EMU currencies
- Setting up triangulation for EMU currencies
- Triangulation and spot rates
- Setting up triangulation for EMU and non-EMU currencies
- Viewing and updating update exchange rates

Activating triangulation functionality is irreversible. Once you activate it, you cannot turn off its functionality. Make sure you understand the no inverse and triangulation functionality and determine whether it relates to your business before activating it.
Setting Up Exchange Rates for EMU Currencies

From the Multi-Currency Setup menu (G1141), choose Set Daily Transaction Rates.

When you set up an exchange rate record from the euro to an EMU member currency (or the opposite direction), the Set Daily Transaction Rates program automatically creates a corresponding record in the other direction. For example, when you set up an exchange rate record from EUR to DEM, the program automatically creates a record for DEM to EUR.

Be careful that you enter the correct override conversion method (multiplier or divisor) for the exchange rate record that you set up. The program does not edit that field. If you enter an incorrect method, the program will create a corresponding record in the other direction, which will also be incorrect.

After you set up exchange rates to and from the euro, you can calculate currency amounts to the euro and from the euro. However, to calculate currencies between two EMU member nations through the euro, you must also set up currency relationships for triangulation.
### Fields

The following fields are on the Set Daily Transaction Rates form and apply specifically to the no inverse method.

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Override Conversion Method (Y/Z)</td>
<td>A value that specifies which method of multi-currency accounting to use:</td>
</tr>
<tr>
<td></td>
<td>Codes are:</td>
</tr>
<tr>
<td></td>
<td>Y  Use multipliers to convert currency. The system multiplies the foreign amount by the exchange rate to calculate the domestic amount.</td>
</tr>
<tr>
<td></td>
<td>Z  Use divisors to convert currency. The system divides the foreign amount by the exchange rate to calculate the domestic amount.</td>
</tr>
<tr>
<td></td>
<td>Form-specific information</td>
</tr>
<tr>
<td></td>
<td>For EMU member currencies, enter a value in this field to override the conversion method on the Set Multi-Currency Option form. A value in this field activates the no inverse method. Enter Z (divisor) when calculating the foreign currency to the triangulation currency and Y (multiplier) when calculating the triangulation currency to the domestic currency.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Override Effective Date</th>
<th>The date on which a transaction, text message, contract, obligation, or preference becomes effective.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Form-specific information</td>
</tr>
<tr>
<td></td>
<td>The override effective date is the date to begin calculating exchange rates using the no inverse method or triangulation. If you enter a value in this field and the Override Conversion Method field, the system uses this date to begin calculating exchange rates using the no inverse method. If you enter a value in this field and the Triangulation Currency field, the system uses this date to begin calculating exchange rates using triangulation.</td>
</tr>
<tr>
<td></td>
<td>For EMU member currencies, the date in this field should be the same date as the effective date on the EMU Member Setup form (00/EU).</td>
</tr>
<tr>
<td>Field</td>
<td>Explanation</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Effective Date</td>
<td>The date on which the exchange rate takes effect. The effective date is used generically. It can be a lease effective date, a price or cost effective date, a currency effective date, a tax rate effective date, or whatever is appropriate.</td>
</tr>
<tr>
<td></td>
<td>Form-specific information</td>
</tr>
<tr>
<td></td>
<td>If you are adding a new effective date to an existing pair of currencies, enter the date on the first blank line.</td>
</tr>
<tr>
<td></td>
<td>Programs use the multiplier or divisor rate associated with the date in this field to calculate amounts. When you enter a transaction, such as an invoice or payment, the program searches for the most recent effective date and uses the corresponding exchange rate.</td>
</tr>
<tr>
<td></td>
<td>For EMU member currencies, programs use this date and the corresponding rate to calculate amounts to the euro, from the euro, or through the euro (triangulation).</td>
</tr>
<tr>
<td>Multiplier</td>
<td>The conversion rate that the system uses to convert foreign currencies to the domestic currency. If the Multi-Currency Conversion field on the Set Multi-Currency Option form is set to Y, the multiplier rate is used for all calculations.</td>
</tr>
<tr>
<td></td>
<td>Form-specific information</td>
</tr>
<tr>
<td></td>
<td>The number you enter in the Multiplier Exchange Rate field can have a maximum of seven decimal positions. If more are entered, the system adjusts the number to the nearest seven decimal positions. If the Multi-Currency Conversion field on the Set Multi-Currency Option form is set to Y, the multiplier is used for all conversions. If you are adding a new rate for the multiplier, remove the existing divisor rate so the system can calculate the new rate.</td>
</tr>
<tr>
<td></td>
<td>For EMU member currencies, the value in the Override Conversion Method field overrides the value in the Multi-Currency Conversion field on the Set Multi-Currency Option form. Enter an exchange rate in this field if the override conversion method is Y (multiplier). This exchange rate is used when calculating from the euro. If you enter a value in this field, you must leave the Divisor Exchange Rate field blank.</td>
</tr>
</tbody>
</table>
### Field | Explanation
--- | ---
Divisor | The conversion rate that the system uses to convert foreign currencies to the domestic currency. If the Multi-Currency Conversion field on the Set Multi-Currency Option form is set to Z, the divisor rate is used for all calculations.

Form-specific information

The number you enter in the Divisor Exchange Rate field can have a maximum of seven decimal positions. If more are entered, the system adjusts to the nearest seven decimal positions. If the Multi-Currency Conversion field on the Set Multi-Currency Option form is set to Z, the divisor is used for all conversions. If you are adding a new rate for the divisor, remove the existing multiplier so the system can calculate the new one.

For EMU member currencies, the value in the Override Conversion Method field overrides the value in the Multi-Currency Conversion field on the Set Multi-Currency Option form. Enter an exchange rate in this field if the override conversion method is Z (divisor). This exchange rate is used when calculating to the euro. If you enter a value in this field, you must leave the Multiplier Exchange Rate field blank.

### Examples: Exchange Rate Setup for EMU Currencies

The following examples show the exchange rate setup for EMU currencies using the no inverse method. The no inverse method uses the same exchange rate, one as a divisor rate and the other as a multiplier rate. The opposite rate on each exchange rate record is blank, since that rate has no purpose.
From EUR to FRF and From FRF to EUR

In the following examples, the exchange rate is 1 euro = 6.63257 FRF.

The program automatically creates a corresponding record in the other direction, as follows.
From EUR to BEF and From BEF to EUR

In the following examples, the exchange rate is 1 euro = 40.7191 BEF.

The program automatically creates a corresponding record in the other direction, as follows.
Setting Up Triangulation for EMU Currencies

From the Multi-Currency Setup menu (G1141), choose Set Daily Transaction Rates.

To calculate amounts between two currencies through the euro, you must set up a triangulation currency record. This record defines the relationship between a triangulation currency and two currencies. There is no exchange rate associated with the triangulation record. Once you set up a triangulation record, the exchange rates are derived from the exchange rate records you set up between an EMU member currency and the euro.

In the above example, the currency relationship between FRF and DEM uses triangulation (EUR).

The exchange rates are not set up on the triangulation record, but are instead set up on the exchange rate records. The exchange rate records define the exchange rates for currency relationships, such as FRF to EUR and EUR to DEM.

If you have exchange rates with an effective date that is after the override effective date on the triangulation record, the program issues a warning and deletes those exchange rate amounts.

Because triangulation is a composite of two rates that have been divided and multiplied to produce a domestic amount, two rates are retrieved and used in the calculation. It is not possible to store both rates on the transaction record; therefore, an exchange rate of zero is stored but not used.
The following fields are on the Set Daily Transaction Rates form and apply specifically to triangulation.

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triangulation Currency</td>
<td>A code that indicates the settling currency for triangulation calculations.</td>
</tr>
<tr>
<td></td>
<td><strong>Form-specific information</strong></td>
</tr>
<tr>
<td></td>
<td>Enter a currency code only if you are setting up a currency relationship record for triangulation. You must enter a currency code, such as EUR, for triangulation to occur between two EMU member currencies. If you use triangulation instead of a cross rate when calculating exchange rates between an EMU member currency and a non-EMU member currency, you must enter a currency code in this field. Leave this field blank if you are setting up an exchange rate record for no inverse or any other currency conversion method.</td>
</tr>
<tr>
<td>Disallow Spot Rates</td>
<td>Indicates whether or not a spot rate is applicable for a particular currency relationship. Spot rates are rates entered at the time of transaction entry. Valid values are: 0 Spot rates are valid for this currency relationship. 1 Spot rates are not valid for this currency relationship. You must enter 1 if you are setting up a triangulation relationship between two EMU member currencies because spot rates are not allowed on transactions between EMU member currencies.</td>
</tr>
<tr>
<td>Override Effective Date</td>
<td>The date on which a transaction, text message, contract, obligation, or preference becomes effective.</td>
</tr>
<tr>
<td></td>
<td><strong>Form-specific information</strong></td>
</tr>
<tr>
<td></td>
<td>The override effective date is the date to begin calculating exchange rates using the no inverse method or triangulation. If you enter a value in this field and the Override Conversion Method field, the system uses this date to begin calculating exchange rates using the no inverse method. If you enter a value in this field and the Triangulation Currency field, the system uses this date to begin calculating exchange rates using triangulation. For EMU member currencies, the date in this field should be the same date as the effective date on the EMU Member Setup form (00/EU).</td>
</tr>
</tbody>
</table>
Triangulation and Spot Rates

When you set up a triangulation relationship for two currencies, you must designate whether spot rates can be used on transactions between those currencies. If the triangulation relationship is between two EMU member currencies, spot rates are not used.

To designate whether spot rates are valid, you enter a value in the Prohibit Spot Rates field. The system then edits the field to ensure that the value you designate is appropriate. To do this, the system determines whether the currency codes exist in the EMU Member Setup table (00/EU) and then does one of the following:

- If both currency codes exist in the table, the system only allows a value of 1 (do not use spot rates) for the currency relationship.
- If one or no currency codes exist in the table, the system allows a value of 0 (spot rates used) for the currency relationship.

If you enter a spot rate on an invoice or voucher, the system compares the converted currency amount to the amount that would be derived using the actual exchange rates. The system calculates the difference between the two amounts and edits your entry, based on the tolerance limit you specified in a processing option (Set Daily Transaction Rates and Speed Transaction Rates Entry programs). If the calculated amount is greater or less than the tolerance amount, you will receive a warning message.

For example, .05 specifies a tolerance limit of 5 percent. If you enter a spot rate that calculates an amount that is 6 percent greater or less than the amount that derived using the actual exchange rates, you will receive a warning. In this way, the system helps to ensure that the spot rate you enter is reasonable, thus alerting you to possible data entry errors.

Example: Setup for EMU Currencies and Triangulation

In the following example, a company with a base currency of FRF transacts business with a company whose base currency is DEM. Three records must be set up to calculate currency exchange rates for this transaction.

Two records (FRF to EUR and EUR to DEM) identify the currency relationships and exchange rates. One record identifies the triangulation currency relationship (EUR).
The following record identifies the FRF to EUR currency relationship and exchange rate.

![Image of FRF to EUR currency setup]

The following record identifies the EUR to DEM currency relationship and exchange rate.

![Image of EUR to DEM currency setup]
The following record identifies the triangulation currency (EUR) between the FRF and DEM currencies.

![Triangulation Currency Example]

**Calculation**

In this example, a company with a base currency of FRF transacts business with a company whose currency is DEM for an amount of 50 FRF.

To convert 50 FRF to DEM, the calculation is as follows:

1. 1 EUR = 6.63258 FRF. Use the divisor method to convert to EUR:

   \[
   \frac{50 \text{ FRF}}{6.63258} = 7.5385445 \text{ EUR}
   \]

2. 1 EUR = 1.98166 DEM. Use the multiplier method to convert to DEM:

   \[
   7.5385445 \text{ EUR} \times 1.98166 = 14.9388321, \text{ or rounded } = 14.94 \text{ DEM}
   \]

**Setting Up Triangulation for EMU and Non-EMU Currencies**

From the Multi-Currency Setup menu (G1141), choose Set Daily Transaction Rates.
Companies in EMU and non-EMU countries that transact business with one another can calculate exchange rates between their currencies using triangulation. Triangulation allows you to calculate transaction amounts between an EMU and a non-EMU currency, as well as two EMU member currencies. For example, a company in Germany can use triangulation when calculating amounts from USD to DEM.

The following provides a visual representation of a USD to DEM currency relationship, using triangulation.

![Currency triangulation diagram](image)

The following briefly describes how to set up an EMU and non-EMU currency relationship for triangulation. It uses the DEM (EMU) and USD (non-EMU) currencies as an example.
Set up a currency exchange rate relationship from USD to EUR.

The USD to EUR exchange rate is not fixed, therefore, the USD exchange rate will continue to fluctuate against the euro.

Set up a currency exchange rate relationship from EUR to DEM.

The EUR to DEM exchange rate is fixed. The euro amount is multiplied by the official rate when calculating to the DEM. Spot rates are not used on transactions between EUR and DEM.
Set up a triangulation currency relationship between USD and DEM.

Spot rates can be used on transactions between USD and DEM.

**Viewing and Updating Exchange Rates**

From the Multi-Currency Processing menu (G11), choose Speed Transaction Rates Entry.

Although you can view and update exchange rates on the Set Daily Transaction Rates form, there are several advantages to using the Speed Transaction Rates Entry form instead:

- You can view all currency rates associated with a specific currency at one time
- You can quickly update multiplier or divisor exchange rates for non-EMU member currencies, which have fluctuating rates
- You can change only exchange rates, which makes this form appropriate for daily exchange rate use
When you update exchange rates on this form, the system updates the Currency Exchange Rates table (F0015).
Customers and the Euro

The following timeline is based on the principles of “no compulsion, no prohibition.” These principles basically state that companies are under no obligation to transact business in the euro beginning on 1 January 1999. The principles also state that companies cannot prohibit their customers or suppliers from transacting business in the euro.

The timeline illustrates how Economic and Monetary Union (EMU) member nations will be expected to handle receipts and payments during the euro transition period, from 1 January 1999 to 1 July 2002.

1 January 1999
- Euro is introduced as an accounting unit.
- The EMU begins for the first phase of EMU member nations.
- Pay invoices and receive payment in national currency or euro
- Submit invoices in national currency or euro
- Provide pricing information in national currency or euro

1 January 2002
- Pay invoices and receive payment in national currency or euro
- Submit invoices in euro only
- Provide pricing information in euro only
- National notes and coins will start being withdrawn

1 July 2002
- Euro is only currency for EMU member nations
- National currencies no longer exist for EMU member nations

During the euro transition period, your company must be prepared to process customer receipts and sales orders in the euro. This is regardless of whether the original transaction was in another currency or whether your company has converted its base currency to the euro.
For example, a French company can continue to submit invoices to a German customer in deutsche marks during the transition period. However, it must be able to process receipts in the euro, if that is how the German customer chooses to pay.

In addition to being able to submit invoices to customers and process receipts in the euro, companies might want to track their customer statistical amounts and balances in the euro. This includes year-to-date invoiced amounts, amount due, minimum and maximum values, and so on.

Converting prices to the euro presents new challenges to companies since it becomes easier for customers to compare prices between countries. Inevitably, prices for products in the euro will vary across countries because the cost of doing business varies across countries.

You run the customer conversion and price generation programs during the euro transition period. These conversion programs are part of the enhancements in A7.3 CU9 and subsequent cumulative updates. Do not confuse them with the euro conversion programs. The euro conversion programs, which are in E9, convert a company’s base currency to the euro.

Checklist: Customers and the Euro

Complete the items in the following checklists to convert a customer or group of customers to the euro, calculate gains and losses for A/R euro realization, and process receipts in the euro. The checklists are divided into two categories:

- One-time only tasks
- Periodic tasks

One-Time Only Tasks

☐ Set up accounts, AAI’s, and processing options for alternate receipt processing

☐ Calculate A/R gains and losses for euro realization

☐ Understand how the gains and losses program handles sales orders entered before 1999

☐ Update sales orders with the most current unit cost in the euro

☐ Create new recurring invoices and credit note reimbursements in the euro
Periodic Tasks

- Convert customer address book amounts and address book currency to the euro and change default customer currency to the euro (manually or with conversion program)
- Create new base and advanced pricing records in the euro (manually or with conversion program)
- Process alternate currency receipts in the euro
- View customer amounts in the euro

For information about electronic payments for the euro, see Electronic Formats and the Euro in the Suppliers and the Euro section of this guide.

Topics in This Section

This section, Customers and the Euro, includes the following topics:

- Euro Realization in Accounts Receivable
- Converting Customer Amounts to the Euro
- Creating New Price Records in the Euro
- Sales Orders Entered Before 1999
- Recurring Invoices, Credit Memos, and the Euro
- Alternate Currency Receipt Setup
- Processing Alternate Currency Receipts
- Viewing Customer Amounts in the Euro
Euro Gain and Loss Realization for Accounts Receivable

After 31 December 1998, the exchange rates between Economic and Monetary Union (EMU) member currencies and the euro will be irrevocably fixed. This means that exchange rates will no longer fluctuate and, therefore, EMU member nations will no longer record gains and losses on transactions that are created on or after 1 January 1999.

*Accounting for the Introduction of the euro*, a document published by the European Commission, provides guidelines about euro gain and loss realization. Within this document, the prudence principle states the following:

*Exchange losses on monetary assets and liabilities are normally taken into account immediately. Exchange gains on monetary liabilities should also be taken into account as they reduce the amount which will ultimately be payable. There is no doubt about the realization of the exchange gains on these liabilities because financial statements are drawn up under the assumption that liabilities are settled upon maturity at face value.*

This topic describes the following:

- When to calculate euro gain and loss realization for A/R
- A/R setup requirements for euro gain and loss realization
- Calculating euro gain and loss realization for A/R

**When to Calculate Euro Gain and Loss Realization for A/R**

According to European Union (EU) regulations, companies in all EMU member nations must realize *losses* on all open invoices prior to 1 January 1999 using the euro fixed exchange rates. This is regardless of whether the company is on a calendar fiscal year and regardless of the base currency the company uses for accounting purposes.
Each EMU member nation has its own regulations about when gains between EMU member currencies must be realized. For example, a nation might have the following requirements:

- Losses on EMU currency transactions must be realized in accounts closing 31 December 1998
- Gains on EMU currency transactions can be realized as late as 31 December 1999

Companies can calculate gains and losses for euro realization at the end of 1998, regardless of whether they plan to convert their base currency to the euro in 1999. You can calculate these euro gains and losses before or after you convert your company’s base currency to the euro. The following explains this:

The euro conversion programs (E9) convert every entry and offsetting entry in your system from your base currency to the euro. For example, your base currency is Belgian francs. Your transactions are in Belgian francs, as well as your gains and losses. When you run the conversion, each transaction is converted to the equivalent euro amount. As a result, it does not matter whether you calculate euro gains and losses before or after the euro conversion.

### A/R Setup Requirements for Euro Gain and Loss Realization

Before you can calculate and record A/R realized gains and losses for the euro, you must ensure that the following are set up correctly:

- Realized gain and loss accounts
- Automatic accounting instructions (AAIs)
- Processing options

### Realized Gain and Loss Accounts

For euro realization, you must set up realized gain and loss accounts. If you process automatic receipts, these accounts already exist. Additionally, you might want to set up special receivable accounts for euro gain and loss realization.

If you use the Currency Gains and Losses program to calculate unrealized gains and losses, the unrealized gain and loss accounts already exist. You will continue to use these accounts for non-EMU currency transactions.
**Automatic Accounting Instructions (AAIs)**

When you calculate realized and unrealized gains and losses, the system uses AAIs to distribute the gain or loss to the correct G/L account. Typically, the AAI items for A/R are (xxx represents the currency code and yyy represents the G/L offset code):

- RGxxx for realized gains
- RLxxx for realized losses
- RVxxx for unrealized gains
- RWxxx for unrealized losses
- RRyyy for unrealized gain/loss offsets

Before you run the Currency Gains and Losses program, you must change or add unrealized AAI items by currency (RVxxx, RWxxx, and RRyyy) to point from unrealized accounts to *realized* accounts. Accrual entries and realized gain and loss entries flow in and out of these realized accounts until you completely process the invoices that were open before the exchange rates for the EMU member currencies were irrevocably fixed.

You will no longer calculate unrealized gains and losses against transactions between EMU member nations after 1 January 1999 since exchange rates do not fluctuate. This explains why you can change the unrealized AAI item to point to a realized account for EMU member currencies.

You must set up AAI items RV and RW by currency code. The currency code separates realized and unrealized transactions within the same company, which allows you to continue to recognize unrealized gains and losses for non-EMU currencies. If only EMU member companies are set up in your environment, you may not have to set up AAI items RV and RW by company and currency.

**Example: AAI Setup for Two Companies**

<table>
<thead>
<tr>
<th>Company</th>
<th>Domestic</th>
<th>Foreign</th>
<th>AAI Item</th>
<th>Type of Account</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company 1</td>
<td>DEM</td>
<td>FRF</td>
<td>RVFRF</td>
<td>Realized Gain</td>
<td>Both EMU currencies</td>
</tr>
<tr>
<td>Company 1</td>
<td>DEM</td>
<td>USD</td>
<td>RVUSD</td>
<td>Unrealized Gain</td>
<td>One non-EMU currency</td>
</tr>
<tr>
<td>Company 2</td>
<td>USD</td>
<td>FRF</td>
<td>RVFRF</td>
<td>Unrealized Gain</td>
<td>One non-EMU currency</td>
</tr>
<tr>
<td>Company 2</td>
<td>USD</td>
<td>DEM</td>
<td>RVDEM</td>
<td>Unrealized Gain</td>
<td>One non-EMU currency</td>
</tr>
</tbody>
</table>

AAIs by Currency: Company 1 has foreign invoices in FRF and USD. The company directs the gain or loss related to the FRF invoice to a realized account and the gain or loss related to the USD invoice to an unrealized account.
AAIs by Company: Company 1 and company 2 both have foreign invoices in FRF so the AAI item is RVFRF. Company 1 directs the AAI item to a realized account, while company 2 directs the same AAI item to an unrealized account.

**Processing Options for Currency Gains and Losses**

The EU and EMU member nations have regulations about how and when companies calculate euro gains and losses. To handle the various regulations, a processing option for the Currency Gains and Losses program allows you to create journal entries for:

- Gains and losses
- Gains only
- Losses only
- No journal entries (proof mode)

This new processing option provides the flexibility that allows member nations to realize gains over an extended period of time.

If you set the processing option for gains only and there are losses only, the program does not create journal entries in final mode. Instead, it prints a report with a message that no journal entries were created. This message also prints if you set the processing option for losses only and there are gains only.

The functionality of this new processing option has been in the Monetary Account Valuation program in previous releases, and remains in this cumulative update.

**Calculating Euro Gain and Loss Realization for A/R**

From the Multi-Currency Monthly Valuation menu (G1121), choose Currency Gains and Losses.

To calculate euro gains and losses on exchange differences on open A/R transactions, you run the Currency Gains and Losses program. This program was enhanced to realize gains and losses for open EMU currency transactions for A/R. The gains and losses that this program creates *and* the gains and losses that are created during receipt processing comprise the solution for euro gain and loss realization. Euro realization does not impact the original A/R Ledger transactions (F0311).

The receipt processing program has not changed. It continues to calculate realized gains and losses as usual.
Set up different DREAMWriter versions of this program to calculate gains only, losses only, and both gains and losses for the euro. If you set up different versions, you do not have to change the processing option each time you run the program for a different type of calculation.

**Example: Euro Loss Realization for A/R**

This example shows realized losses on open invoices for a one-month period. In this example, the Currency Gains and Losses program is set to create journal entries for losses only. The receipt process will create journal entries for gains in January 1999.

**15 December 1998**

Company 1 uses DEM as its base currency and has four open invoices as of 15 December 1998.

This example includes a USD invoice (RI 4) to show that when the program calculates realized gains and losses for EMU member currencies, it does not change how it processes unrealized gains and losses for non-EMU member currencies.

<table>
<thead>
<tr>
<th>Invoice</th>
<th>Domestic Amounts</th>
<th>Foreign Amounts</th>
<th>Exchange Rate 15/12/98</th>
</tr>
</thead>
<tbody>
<tr>
<td>RI 1</td>
<td>595.12 DEM</td>
<td>2000.00 FRF</td>
<td>.29756</td>
</tr>
<tr>
<td>RI 2</td>
<td>484.98 DEM</td>
<td>10000 BEF</td>
<td>.048498</td>
</tr>
<tr>
<td>RI 3</td>
<td>2380.46 DEM</td>
<td>8000.00 FRF</td>
<td>.2975575</td>
</tr>
<tr>
<td>RI 4</td>
<td>999.60 DEM</td>
<td>500.00 USD</td>
<td>1.9992</td>
</tr>
</tbody>
</table>

**31 December 1998**

On 31 December 1998, the exchange rates are irrevocably fixed for EMU member currencies. As a result, the exchange rates are calculated using triangulation and the no inverse rule, based on the following (unofficial) rates:

- 1 EUR = 6.45863 FRF
- 1 EUR = 1.0235 USD
- 1 EUR = 39.7191 BEF
- 1 EUR = 1.92573 DEM
A7.3 CU10 Implementation Guide

<table>
<thead>
<tr>
<th>Invoice</th>
<th>Calculation</th>
<th>Calculated Exchange Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>RI 1</td>
<td>((2000.00 \div 6.45863) \times 1.92573) = 596.33 / 2000.00</td>
<td>0.298165</td>
</tr>
<tr>
<td>RI 2</td>
<td>((10000 \div 39.7191) \times 1.92573) = 484.84 / 10000</td>
<td>0.048484</td>
</tr>
<tr>
<td>RI 3</td>
<td>((8000.00 \div 6.45863) \times 1.92573) = 2385.31 / 8000.00</td>
<td>0.298164</td>
</tr>
<tr>
<td>RI 4</td>
<td>((500.00 \div 1.0235) \times 1.92573) = 940.76 / 500.00</td>
<td>1.88152</td>
</tr>
</tbody>
</table>

The following table shows the gains and losses calculated from the change in exchange rates.

<table>
<thead>
<tr>
<th>Invoice</th>
<th>Domestic Amounts</th>
<th>Foreign Amounts</th>
<th>Exchange Rate 31/12/98</th>
<th>Gain (+) or Loss (~)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RI 1</td>
<td>596.33 DEM</td>
<td>2000.00 FRF</td>
<td>298165</td>
<td>+ 1.21 DEM</td>
</tr>
<tr>
<td>RI 2</td>
<td>484.84 DEM</td>
<td>10000 BEF</td>
<td>0.048484</td>
<td>~ 0.14 DEM</td>
</tr>
<tr>
<td>RI 3</td>
<td>2385.31 DEM</td>
<td>8000.00 FRF</td>
<td>298164</td>
<td>~ 4.85 DEM</td>
</tr>
<tr>
<td>RI 4</td>
<td>940.76 DEM</td>
<td>500.00 USD</td>
<td>1.88152</td>
<td>~ 58.84 DEM</td>
</tr>
</tbody>
</table>

The Currency Gains and Losses program creates the following journal entries on 31 December 1998.

<table>
<thead>
<tr>
<th>Journal Entry Type</th>
<th>AAI Item</th>
<th>Type of Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>JX 2</td>
<td>RWBEF</td>
<td>Realized Loss</td>
<td>0.14 DEM</td>
</tr>
<tr>
<td>JX 2</td>
<td>RRBEF</td>
<td>Accounts Receivable</td>
<td>~ 0.14 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>RWUSD</td>
<td>Unrealized Loss</td>
<td>58.84 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>RRUSD</td>
<td>Accounts Receivable</td>
<td>~ 58.84 DEM</td>
</tr>
</tbody>
</table>

Notice that the journal entry for the USD currency loss is recorded in an unrealized account, while the BEF currency loss is recorded in a realized account.

Journal entries are not created for gains because the processing option was set to create losses only. Therefore, gains on the FRF invoices that were paid in January were realized in January.
The following T-account shows that since realized losses were calculated in December, there is a net amount of zero for realized losses in January.

<table>
<thead>
<tr>
<th>Month</th>
<th>Realized Loss Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>December</td>
<td>0.14</td>
</tr>
<tr>
<td>January</td>
<td>0.14</td>
</tr>
</tbody>
</table>

1 January 1999

On 1 January 1999, reversing journal entries are created for both realized and unrealized losses:

<table>
<thead>
<tr>
<th>Journal Entry Type</th>
<th>AAI Item</th>
<th>Type of Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>JX 2</td>
<td>RWBEF</td>
<td>Realized Loss</td>
<td>−0.14 DEM</td>
</tr>
<tr>
<td>JX 2</td>
<td>RRBEF</td>
<td>Accounts Receivable Trade</td>
<td>0.14 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>RWUSD</td>
<td>Unrealized Loss</td>
<td>−58.84 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>RRUSD</td>
<td>Accounts Receivable Other</td>
<td>58.84 DEM</td>
</tr>
</tbody>
</table>
During January, the customer pays all four invoices. The realized gains are calculated during receipt processing. These calculations occur independently of the Currency Gains and Losses program.

<table>
<thead>
<tr>
<th>Journal Entry Type</th>
<th>Type of Account</th>
<th>Domestic Accounts</th>
<th>Foreign Amounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC 1</td>
<td>Cash in Bank</td>
<td>596.33 DEM</td>
<td>2000.00 FRF</td>
</tr>
<tr>
<td>RG 1</td>
<td>Realized Gain</td>
<td>– 1.21 DEM</td>
<td></td>
</tr>
<tr>
<td>AE 1</td>
<td>Accounts Receivable Trade</td>
<td>– 595.12 DEM</td>
<td>2000.00 FRF</td>
</tr>
<tr>
<td>RC 2</td>
<td>Cash in Bank</td>
<td>484.84 DEM</td>
<td>10000 BEF</td>
</tr>
<tr>
<td>RG 2</td>
<td>Realized Loss</td>
<td>0.14 DEM</td>
<td></td>
</tr>
<tr>
<td>AE 2</td>
<td>Accounts Receivable Trade</td>
<td>– 484.98 DEM</td>
<td>10000 BEF</td>
</tr>
<tr>
<td>RC 3</td>
<td>Cash in Bank</td>
<td>2385.31 DEM</td>
<td>8000.00 FRF</td>
</tr>
<tr>
<td>RG 3</td>
<td>Realized Loss</td>
<td>– 4.85 DEM</td>
<td></td>
</tr>
<tr>
<td>AE 3</td>
<td>Accounts Receivable Trade</td>
<td>– 2380.46 DEM</td>
<td>8000.00 FRF</td>
</tr>
<tr>
<td>RC 4</td>
<td>Cash in Bank</td>
<td>940.76 DEM</td>
<td>500.00 USD</td>
</tr>
<tr>
<td>RG 4</td>
<td>Realized Loss</td>
<td>58.84 DEM</td>
<td></td>
</tr>
<tr>
<td>AE 4</td>
<td>Accounts Receivable Trade</td>
<td>– 999.60 DEM</td>
<td>500.00 USD</td>
</tr>
</tbody>
</table>

Since the invoices were paid before 31 January 1999, the realization process that ran at the end of January did not select them. The following T-accounts show the entries that were recorded for those transactions.

### Realized Gain Account

<table>
<thead>
<tr>
<th>December</th>
<th>January</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.21</td>
<td>4.85</td>
</tr>
</tbody>
</table>
Example: Euro Gain and Loss Realization for A/R

This example shows realized gains and losses on open invoices that exist for more than a one-month period. In this example, the Currency Gains and Losses program is set to create journal entries for both gains and losses.

15 December 1998

Company 1 uses DEM as it base currency and has four open invoices as of 15 December 1998.

<table>
<thead>
<tr>
<th>Invoice</th>
<th>Domestic Amounts</th>
<th>Foreign Amounts</th>
<th>Exchange Rate 15/12/98</th>
</tr>
</thead>
<tbody>
<tr>
<td>RI 1</td>
<td>595.12 DEM</td>
<td>2000.00 FRF</td>
<td>0.29756</td>
</tr>
<tr>
<td>RI 2</td>
<td>484.98 DEM</td>
<td>1000 BEF</td>
<td>0.048498</td>
</tr>
<tr>
<td>RI 3</td>
<td>2380.46 DEM</td>
<td>8000.00 FRF</td>
<td>0.297557</td>
</tr>
<tr>
<td>RI 4</td>
<td>999.60 DEM</td>
<td>500.00 USD</td>
<td>1.9992</td>
</tr>
</tbody>
</table>

31 December 1998

On 31 December 1998, the exchange rates are irrevocably fixed for EMU member currencies. As a result, the exchange rates are calculated using triangulation and the no inverse rule, based on the following (unofficial) rates:

- 1 EUR = 6.45863 FRF
- 1 EUR = 1.0235 USD
- 1 EUR = 39.7191 BEF
- 1 EUR = 1.92573 DEM

<table>
<thead>
<tr>
<th>Invoice</th>
<th>Calculation</th>
<th>Calculated Exchange Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>RI 1</td>
<td>((2000.00 / 6.45863) x 1.92573) = 596.33 / 2000.00</td>
<td>0.298165</td>
</tr>
<tr>
<td>RI 2</td>
<td>((10000 / 39.7191) x 1.92573) = 484.84 / 10000</td>
<td>0.048484</td>
</tr>
<tr>
<td>RI 3</td>
<td>((8000.00 / 6.45863) x 1.92573) = 2385.31 / 8000.00</td>
<td>0.298164</td>
</tr>
<tr>
<td>RI 4</td>
<td>((500.00 / 1.0235) x 1.92573) = 940.76 / 500.00</td>
<td>1.88152</td>
</tr>
</tbody>
</table>
The following table shows the gains and losses calculated from the change in exchange rates.

<table>
<thead>
<tr>
<th>Invoice</th>
<th>Domestic Amounts</th>
<th>Foreign Amounts</th>
<th>Exchange Rate 31/12/98</th>
<th>Gain (+) or Loss (−)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RI 1</td>
<td>596.33 DEM</td>
<td>2000.00 FRF</td>
<td>2.98165</td>
<td>+ 1.21 DEM</td>
</tr>
<tr>
<td>RI 2</td>
<td>484.84 DEM</td>
<td>10000 BEF</td>
<td>0.048484</td>
<td>– 0.14 DEM</td>
</tr>
<tr>
<td>RI 3</td>
<td>2385.31 DEM</td>
<td>8000.00 FRF</td>
<td>2.98164</td>
<td>+ 4.85 DEM</td>
</tr>
<tr>
<td>RI 4</td>
<td>940.76 DEM</td>
<td>500.00 USD</td>
<td>1.88152</td>
<td>– 58.84 DEM</td>
</tr>
</tbody>
</table>

The Currency Gains and Losses program creates the following journal entries on 31 December 1998.

<table>
<thead>
<tr>
<th>Journal Entry Type</th>
<th>AAI Item</th>
<th>Type of Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>JX 1</td>
<td>RWFRF</td>
<td>Realized Gain</td>
<td>– 1.21 DEM</td>
</tr>
<tr>
<td>JX 1</td>
<td>RRFRF</td>
<td>Accounts Receivable</td>
<td>1.21 DEM</td>
</tr>
<tr>
<td>JX 2</td>
<td>RWBEF</td>
<td>Realized Loss</td>
<td>0.14 DEM</td>
</tr>
<tr>
<td>JX 2</td>
<td>RRFRF</td>
<td>Accounts Receivable</td>
<td>– 0.14 DEM</td>
</tr>
<tr>
<td>JX 3</td>
<td>RWFRF</td>
<td>Realized Gain</td>
<td>– 4.85 DEM</td>
</tr>
<tr>
<td>JX 3</td>
<td>RBBEF</td>
<td>Accounts Receivable</td>
<td>4.85 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>RWUSD</td>
<td>Unrealized Loss</td>
<td>58.84 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>RRUSD</td>
<td>Accounts Receivable</td>
<td>– 58.84 DEM</td>
</tr>
</tbody>
</table>

The journal entries for the FRF and BEF invoices are recorded in realized accounts. The journal entry for the USD invoice is recorded in an unrealized account during standard period-end processing.
The following T-accounts show the journal entries for the realized accounts in December.

<table>
<thead>
<tr>
<th>Realized Loss Account</th>
<th>Realized Gain Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.14</td>
<td>1.21</td>
</tr>
<tr>
<td></td>
<td>4.85</td>
</tr>
</tbody>
</table>

**1 January 1999**

On 1 January 1999, reversing journal entries are created for both realized gains and losses.

<table>
<thead>
<tr>
<th>Journal Entry Type</th>
<th>AAI Item</th>
<th>Type of Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>JX 1</td>
<td>RWFRF</td>
<td>Realized Gain</td>
<td>1.21 DEM</td>
</tr>
<tr>
<td>JX 1</td>
<td>RFRFRF</td>
<td>Accounts Receivable Trade</td>
<td>-1.21 DEM</td>
</tr>
<tr>
<td>JX 2</td>
<td>RWBEF</td>
<td>Realized Loss</td>
<td>-0.14 DEM</td>
</tr>
<tr>
<td>JX 2</td>
<td>RFRFRF</td>
<td>Accounts Receivable Trade</td>
<td>0.14 DEM</td>
</tr>
<tr>
<td>JX 3</td>
<td>RWFRF</td>
<td>Realized Gain</td>
<td>4.85 DEM</td>
</tr>
<tr>
<td>JX 3</td>
<td>RRBEF</td>
<td>Accounts Receivable Trade</td>
<td>-4.85 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>RWUSD</td>
<td>Unrealized Loss</td>
<td>-58.84 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>RRUSD</td>
<td>Accounts Receivable Other</td>
<td>58.84 DEM</td>
</tr>
</tbody>
</table>

During January, invoice RI 1 is paid and the loss is realized during receipt processing. The receipt calculations occur independently of the Currency Gains and Losses program.

<table>
<thead>
<tr>
<th>Journal Entry Type</th>
<th>Type of Account</th>
<th>Domestic Accounts</th>
<th>Foreign Amounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC 1</td>
<td>Cash in Bank</td>
<td>596.33 DEM</td>
<td>2000.00 BEF</td>
</tr>
<tr>
<td>RG 1</td>
<td>Realized Gain</td>
<td>-1.21 DEM</td>
<td></td>
</tr>
<tr>
<td>AE 1</td>
<td>Accounts Receivable Trade</td>
<td>-595.12 DEM</td>
<td>2000.00 BEF</td>
</tr>
</tbody>
</table>
31 January 1999

On 31 January 1999, invoices RI 2 (BEF), RI 3 (FRF), and RI 4 (USD) remain open. The Currency Gains and Losses program will again create realized journal entries for the FRF and BEF invoices and the program will create unrealized journal entries for the USD invoice. Realized journal entries were created for the paid invoice (RI 1) during receipt processing and are bypassed by the program.

<table>
<thead>
<tr>
<th>Journal Entry Type</th>
<th>AAI Item</th>
<th>Type of Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>JX 2</td>
<td>RWBEF</td>
<td>Realized Loss</td>
<td>0.14 DEM</td>
</tr>
<tr>
<td>JX 2</td>
<td>RRBCEF</td>
<td>Accounts Receivable Trade</td>
<td>– 0.14 DEM</td>
</tr>
<tr>
<td>JX 3</td>
<td>RWFRF</td>
<td>Realized Gain</td>
<td>– 4.85 DEM</td>
</tr>
<tr>
<td>JX 3</td>
<td>RRFRF</td>
<td>Accounts Receivable Trade</td>
<td>4.85 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>RWUSD</td>
<td>Unrealized Loss</td>
<td>58.84 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>RRUSD</td>
<td>Accounts Receivable Other</td>
<td>– 58.84 DEM</td>
</tr>
</tbody>
</table>

The following T-accounts show the journal entries for the realized accounts in January.

<table>
<thead>
<tr>
<th>Realized Loss Account</th>
<th>Realized Gain Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>January</td>
</tr>
<tr>
<td>0.14</td>
<td>1.21</td>
</tr>
<tr>
<td>0.14</td>
<td>4.85</td>
</tr>
</tbody>
</table>

* This entry was created when the invoice was paid; it was not created by the Currency Gains and Losses program.

Since the original journal entries for realized gains and losses were created in December, the overall impact is zero for January.
1 February 1999

On 1 February 1999, reversing journal entries are created for the realized gains.

<table>
<thead>
<tr>
<th>Journal Entry Type</th>
<th>AAI Item</th>
<th>Type of Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>JX 2</td>
<td>RWBEF</td>
<td>Realized Loss</td>
<td>− 0.14 DEM</td>
</tr>
<tr>
<td>JX 2</td>
<td>RRBZF</td>
<td>Accounts Receivable Trade</td>
<td>0.14 DEM</td>
</tr>
<tr>
<td>JX 3</td>
<td>PWFRF</td>
<td>Realized Gain</td>
<td>4.85 DEM</td>
</tr>
<tr>
<td>JX 3</td>
<td>RFRRF</td>
<td>Accounts Receivable Trade</td>
<td>− 4.85 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>RWUSD</td>
<td>Unrealized Loss</td>
<td>− 58.84 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>RRUSD</td>
<td>Accounts Receivable Other</td>
<td>58.84 DEM</td>
</tr>
</tbody>
</table>

The remaining three invoices are paid in February and the gains and losses are realized during receipt processing.

<table>
<thead>
<tr>
<th>Journal Entry Type</th>
<th>Type of Account</th>
<th>Domestic Amounts</th>
<th>Foreign Amounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC 2</td>
<td>Cash in Bank</td>
<td>484.84 DEM</td>
<td>1000.00 BEF</td>
</tr>
<tr>
<td>RG 2</td>
<td>Realized Loss</td>
<td>0.14 DEM</td>
<td></td>
</tr>
<tr>
<td>AE 2</td>
<td>Accounts Receivable Trade</td>
<td>− 484.98 DEM</td>
<td>1000.00 BEF</td>
</tr>
<tr>
<td>RC 3</td>
<td>Cash in Bank</td>
<td>2385.31 DEM</td>
<td>8000.00 FRF</td>
</tr>
<tr>
<td>RG 3</td>
<td>Realized Loss</td>
<td>− 4.85 DEM</td>
<td></td>
</tr>
<tr>
<td>AE 3</td>
<td>Accounts Receivable Trade</td>
<td>−2380.46 DEM</td>
<td>8000.00 FRF</td>
</tr>
<tr>
<td>RC 4</td>
<td>Cash in Bank</td>
<td>940.76 DEM</td>
<td>500.00 USD</td>
</tr>
<tr>
<td>RG 4</td>
<td>Realized Loss</td>
<td>58.84 DEM</td>
<td></td>
</tr>
<tr>
<td>AE 4</td>
<td>Accounts Receivable Trade</td>
<td>999.60 DEM</td>
<td>500.00 USD</td>
</tr>
</tbody>
</table>

The Currency Gains and Losses program is run again on 28 February 1999, during standard period-end processing. The program bypasses the invoices since they have already been paid.
The following T-accounts show the journal entries for realized accounts in February.

<table>
<thead>
<tr>
<th>Realized Loss Account</th>
<th>Realized Gain Account</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>February</strong></td>
<td><strong>February</strong></td>
</tr>
<tr>
<td>0.14</td>
<td>4.85</td>
</tr>
<tr>
<td>*0.14</td>
<td>*4.85</td>
</tr>
</tbody>
</table>

* These entries were created when the invoice was paid; they were not created by the Currency Gains and Losses program.

Since the original journal entries for realized gains and losses were created in December, the overall impact is zero for February.
Converting Customer Amounts to the Euro

€

You convert your customer's default currency and statistical amounts to the euro for the following reasons:

- Your customer wants to receive invoices in the euro
- You want to submit invoices to your customers in the euro
- You want to see a customer's statistical amounts in the euro

This topic describes the following:

- When to convert customer address book amounts
- Converting customer address book amounts
- Changing a customer's default currency
- How limit amounts are calculated
- Application outside of the EMU

When to Convert Customer Address Book Amounts

Throughout your company's transition to the euro, you will convert customer amounts and customer default currencies to the euro. You can convert these amounts and currencies on a customer-by-customer basis, or you can convert multiple customers at one time. Additionally, you can convert a customer's statistical amounts and default currency at the same time, or independently of one another. To convert the statistical amounts, you must have already set up EMU currency relationships and exchange rates.

After your company converts its base currency to the euro, you may submit invoices in either the euro or the national currency of your EMU customers as long as it is within the euro transition period. For example, if a French customer has not yet converted to the euro, you can submit invoices in the French franc even if your company has converted to the euro.
If you have a parent/child structure with different default and address book currencies, you can convert the parent independently from its children and vice versa.

The following example shows a parent/child relationship with different currencies.

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Address Book Currency</th>
<th>Default Currency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent</td>
<td>ITL</td>
<td>ITL</td>
</tr>
<tr>
<td>Child 1</td>
<td>ITL</td>
<td>DEM</td>
</tr>
<tr>
<td>Child 2</td>
<td>ITL</td>
<td>FRF</td>
</tr>
<tr>
<td>Child 3</td>
<td>ITL</td>
<td>DEM</td>
</tr>
</tbody>
</table>

In this example, Child 1 and Child 3 have requested that you submit their invoices in the euro. You run the Customer Master Conversion program to convert their default currency from DEM to EUR. (Alternatively, you can convert the currencies of a parent and its children at the same time, if applicable.)

The following example shows the results after the conversion.

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Address Book Currency</th>
<th>Default Currency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent</td>
<td>ITL</td>
<td>ITL</td>
</tr>
<tr>
<td>Child 1</td>
<td>ITL</td>
<td>EUR</td>
</tr>
<tr>
<td>Child 2</td>
<td>ITL</td>
<td>FRF</td>
</tr>
<tr>
<td>Child 3</td>
<td>ITL</td>
<td>EUR</td>
</tr>
</tbody>
</table>

This example shows that you can continue to track statistical amounts (address book currency) in the parent company’s currency while invoicing some of the subsidiaries in the euro. It is also possible to convert the statistical amounts to the euro at the subsidiary level.

**Converting Customer Address Book Amounts**

From the Multi-Currency Conversion Operations menu (G1132), choose Customer Master Conversion.

When you convert customer amounts, you convert amounts in the Customer Master table (F0301) only. You do not convert transactions in the Accounts Receivable Ledger table (F0311). This is because, for consistency and integrity reasons, you cannot convert existing transaction amounts to the euro until you convert your base currency to the euro.
Converting Customer Amounts to the Euro

You can set up different DREAMWriter versions of the conversion program. For example, you might set up one version to convert amount currency codes only, another version to convert currency codes only, and still another to convert both.

When you convert customer amounts, you convert either or both of the following:

- Customer default currency (Currency Code field)
- Customer address book amounts and address book currency (Amount Currency field)

Customer Address Book Amounts and Address Book Currency

The Customer Master Conversion program converts summary statistical amounts, limit amounts, and currency codes for customers.

When you convert address book amounts for customers, you convert the following types of amounts:

<table>
<thead>
<tr>
<th>Summary statistical amounts</th>
<th>Year-to-date invoice amounts and finance charges</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prior year invoice amounts and finance charges</td>
</tr>
<tr>
<td></td>
<td>Amount due</td>
</tr>
<tr>
<td></td>
<td>Amount last paid</td>
</tr>
<tr>
<td></td>
<td>Highest balance</td>
</tr>
<tr>
<td></td>
<td>Open order amounts</td>
</tr>
</tbody>
</table>
Limit amounts

- Credit Limit
- Minimum and maximum order values

The Account Status Summary form shows the customer statistical amounts that you convert to the euro. To access this form, press F16 on Customer Ledger Inquiry.

**Example: Before and After Converting Customer Amounts**

This example shows customer amounts before and after converting from the French franc (FRF) to the euro (EUR). The values for this example are set as follows:

<table>
<thead>
<tr>
<th><strong>Program</strong></th>
<th><strong>Field or Processing Option Value</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Master Information</td>
<td>Amount Currency field = FRF</td>
</tr>
<tr>
<td></td>
<td>Currency Code field = FRF</td>
</tr>
<tr>
<td>Set Daily Transaction Rates</td>
<td>(FRF to EUR currency relationship)</td>
</tr>
<tr>
<td></td>
<td>Exchange rate field = 6.63257 (divisor)</td>
</tr>
</tbody>
</table>
Converting Customer Amounts to the Euro

Program | Field or Processing Option Value
--- | ---
Address Book Conversion | Amount Currency processing option = EUR
| Currency Code processing option = blank
| Round Limit Amounts processing option = 50

After converting to the euro, this customer’s statistical amounts will be in the euro, however, their invoices will remain in French francs.

<table>
<thead>
<tr>
<th>F0301 Field</th>
<th>Description</th>
<th>Before Conversion</th>
<th>After Conversion</th>
<th>Rounded From</th>
</tr>
</thead>
<tbody>
<tr>
<td>A5CRC</td>
<td>Currency Code - A/R</td>
<td>FRF</td>
<td>FRF</td>
<td>Not applicable</td>
</tr>
<tr>
<td>A5RCA</td>
<td>Currency Code - A/B</td>
<td>FRF</td>
<td>EUR</td>
<td>Not applicable</td>
</tr>
<tr>
<td>A5AD</td>
<td>Amount Due</td>
<td>100.00</td>
<td>15.08</td>
<td>Not applicable</td>
</tr>
<tr>
<td>A5AFCP</td>
<td>Prior Year Finance Charges</td>
<td>200.00</td>
<td>30.15</td>
<td>Not applicable</td>
</tr>
<tr>
<td>A5AFCY</td>
<td>YTD Finance Charges</td>
<td>300.00</td>
<td>45.23</td>
<td>Not applicable</td>
</tr>
<tr>
<td>A5ASTY</td>
<td>Invoiced This Year</td>
<td>400.00</td>
<td>60.31</td>
<td>Not applicable</td>
</tr>
<tr>
<td>A5SPYE</td>
<td>Invoiced Prior Year</td>
<td>500.00</td>
<td>75.39</td>
<td>Not applicable</td>
</tr>
<tr>
<td>A5AHB</td>
<td>High Balance</td>
<td>600.00</td>
<td>90.46</td>
<td>Not applicable</td>
</tr>
<tr>
<td>A5ALP</td>
<td>Last Paid Amount</td>
<td>700.00</td>
<td>105.54</td>
<td>Not applicable</td>
</tr>
<tr>
<td>A5ABAM</td>
<td>Address Book Amount</td>
<td>Not used</td>
<td>Not used</td>
<td>Not applicable</td>
</tr>
<tr>
<td>A5ABA1</td>
<td>Address Book Amount</td>
<td>Not used</td>
<td>Not used</td>
<td>Not applicable</td>
</tr>
<tr>
<td>A5APRC</td>
<td>Open Order Amount</td>
<td>1,000.00</td>
<td>150.77</td>
<td>Not applicable</td>
</tr>
<tr>
<td>A5MINO</td>
<td>Minimum Order Amount</td>
<td>1,000</td>
<td>150</td>
<td>150.77</td>
</tr>
<tr>
<td>A5MAXO</td>
<td>Maximum Order Amount</td>
<td>50,000</td>
<td>7,550</td>
<td>7538.56</td>
</tr>
<tr>
<td>A5ACL</td>
<td>Credit Limit</td>
<td>10,000</td>
<td>1,500</td>
<td>1507.71</td>
</tr>
</tbody>
</table>

In the Customer Master table, the field A5ABAM stores a user-defined fixed amount and the field A5ABA1 is for future use. If you use either of these fields, be aware that the Customer Master Conversion program converts the amounts, regardless of whether they are monetary amounts.

Changing a Customer’s Default Currency

From the Multi-Currency Conversion Operations menu (G1132), choose Customer Master Conversion.
You can set up different DREAMWriter versions. For example, you might set up one version to convert default currency codes only, another version to convert amount currency codes only, and still another to convert both.

To comply with a customer’s request to receive invoices in the euro, you must change the default currency code on that customer’s master record. You can change the code for multiple customers at one time by running the Customer Master Conversion program. Or, you can change a customer’s currency code manually on the Customer Master Information form. You might do this if you have just one or two customers to convert on a particular day.

**Processing Options for Customer Master Conversion**

Depending on how you set your processing options, the Customer Master Conversion program does either or both of the following for multiple customers:

- Converts customer statistical amounts and amount currency code
- Changes customer currency code

These codes are stored in the Amount Currency (CRCA) and Currency Code (CRCD) fields in the Customer Master table (F0301).

<table>
<thead>
<tr>
<th>Processing Option</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update Control</td>
<td>A value of 1 updates the Customer Master Information table (F0301). An exceptions report prints with any of the following messages:</td>
</tr>
<tr>
<td></td>
<td><em>No processing errors.</em> If you entered 1 for this processing option, the conversion program updates the Customer Master Information table. If you left it blank, it does not update the table.</td>
</tr>
<tr>
<td></td>
<td><em>Currency exchange rate not found.</em> Cause: The currency code that you are converting to is not set up in the exchange rate table, the exchange rate or effective date is not set up for the currency code.</td>
</tr>
<tr>
<td></td>
<td><em>Invalid currency entered.</em> Cause: The currency code you entered for processing option 3 or 4 or both is not valid.</td>
</tr>
<tr>
<td></td>
<td><em>Update error - record locked or not found.</em> Cause: The customer master record is in use.</td>
</tr>
<tr>
<td>Date Options</td>
<td>The exchange rate date to use for the conversion.</td>
</tr>
</tbody>
</table>
### Data Selection

The data selection provides flexibility when converting customer amounts to the euro. To convert address book amounts by customer, specify the address book numbers. If you do not do this, the conversion program converts all customers. To convert amounts for all customers assigned a certain category code, specify the category code.

### How Limit Amounts Are Calculated

Limit amounts are credit limits and minimum and maximum order amounts that you assign to a customer master record. Limit amounts are usually rounded numbers and are stored without decimals. You designate the rounding amount to use when converting limit amounts in a process option.

For example, 1 euro = 6.45863 FRF. The conversion program converts a credit limit of 10,000 French francs to 1,548 euro. You designate a rounding amount to the nearest 50. The conversion program rounds 1,548 euros to 1,550 euros.

### Calculation

\[
\text{Converted Amount} / \text{Divisor} = Q \text{ with a remainder of } R.
\]

(The Divisor equals the rounding amount you designate in the processing options.)
Rounding Up or Down

Amounts are rounded up or down, as follows:

- Round up. If \( R \) is greater than or equal to one half of the divisor, then subtract \( R \) from the divisor and add that amount to the converted amount. (This is based on a rounding amount of 50.)

  Calculation: 1548 EUR / 50 = 30 with a remainder of 48. If 48 is greater than one half of 50 (25), then add 2 (50 – 48) to 1548 to get a rounded value of 1550 EUR.

- Round down. If \( R \) is less than one half of the divisor, then subtract \( R \) from the converted amount. (This is based on a rounding amount of 50.)

  Calculation: 1510 EUR / 50 = 30 with a remainder of 10. If 10 is less than one half of 50 (25), then subtract 10 from the converted amount to get a rounded value of 1500 EUR.

Application Outside of the EMU

Countries outside of the EMU can use the Customer Master Conversion program to change a customer to any currency, for example, to change from U.S. dollars to Canadian dollars.

A customer’s statistical and limit amounts can also be converted using one exchange rate, based on the date in the processing option.
Creating New Price Records in the Euro

Your customers might ask you to provide prices in the euro as early as 1 January 1999. You can provide prices in the euro for new euro customers and for current customers who convert to the euro, regardless of whether your internal accounting systems have changed over to the euro. You can provide prices in the euro for some companies and prices in a national currency for others. You control the currency on the customer master record.

Some companies will create new euro price records, others will wait until 2002 when it is mandatory, and still others will use a transitional approach and create new price records for several customer groups at a time over a period of time.

This topic describes the following:

- What to do before you create new price records
- The generation programs that create new price records
- Creating new base price records in the euro
- Creating new advanced price records in the euro
- Application outside of the EMU

What to Do Before You Create New Price Records

Before you create new price records, you should review your current pricing structure and plan a strategy for your new price records.
For example, your current pricing structure has several currencies associated with each item number. First, you should think about which currency to convert first. You might choose the most common currency used in your pricing structure or choose the currency based on a fixed rate that is more favorable for your pricing. You might also choose to create new price records by different branch plants or groups.

To plan a strategy for your new price records, it is important that you understand how the price generation program creates new price records. When you run the program, it creates only one euro price record for each item. The price generation program does not create one euro price record for each currency. If a euro price record exists for an item, the price generation program does not create another euro record for that item. There are two exceptions to this rule:

- When currency codes associated with an item have different effective through dates, in which case the price generation program might create more than one euro price record
- If prices are set up for different customers or customer groups

If you have a complex pricing structure, you might create new euro price records manually. Or, you might create some new euro records manually and others automatically, using the generation program.

**The Generation Programs that Create New Price Records**

To create new price records in the euro, you run the Generate Base Price/Currency program. This program does the following:

- Copies the original currency price record
- Calculates a new price in the euro based on the exchange rate you specify
- Creates a new price record with the euro amount

You can create new price records in the euro from existing records as well as from customer-specific prices. To create price records in the euro, you run two separate price generation programs that create:

- New base price records
- New advanced price adjustment records

You run the price generation programs one currency at a time. These programs were designed to create new price records one currency at a time to avoid confusion about from which currency a new price record was created.

When the price generation program creates a new euro price record, it sequences that record alphabetically with the existing records.
To create new price records, you specify the:

- Date as of when you want to create new records
- Currency in which you want to create new records
- Currency of the existing price records
- Exchange rate to use to calculate the new price
- Conversion method (divisor or multiplier) to use to perform the exchange rate calculation

You must use the divisor method when calculating an amount from an Economic and Monetary Union (EMU) national currency to the euro. By using the divisor method, new price records are based on the no inverse method which is required by the European Union (EU).

The generation program for base price records automatically rounds converted euro amounts according to the data dictionary.

The generation program for base price records automatically rounds converted euro amounts according to the decimal places that are set up in the data dictionary.

Creating New Base Price Records in the Euro

From the Price Management menu (G4222), choose Generate Base Price/Currency.

Alternatively, you can create a new price record in the euro by manually entering it on Base Price Revisions or Price Adjustment Detail. You do not have to run the price generation program.

The following form (Base Price Revisions, menu G4222) shows a base price record after the generation program created a euro price record.
Notice that the original price record remains. This is so you can continue to invoice customers in the national currency.

Creating New Advanced Price Records in the Euro

From the Advanced Price and Adjustments menu (G42311), choose Generate Price Adjustment/Currency.

This price generation program copies the original price adjustment record and creates a new record in the euro only if the adjustment is an actual amount. Otherwise, it copies the original record, retains the factor value, and changes only the currency code.

You can create new advanced price records in the euro:

- With an actual amount
- Without an actual amount

Advanced Price Adjustments with an Actual Amount

You can only create new price adjustment records for advanced price records that have an actual amount, such as those with a basis code of 4 (cost plus) or 5 (add on). You can also create new records for level breaks based-on amounts. You cannot create new advanced price records for amounts with a basis code of 7 (formula).
For example, if the adjustment record is assigned a basis code of 5 (add-on amount), the amount is converted to the euro. In this example, a price adjustment is 100 FRF for an add-on amount. The exchange rate is 6.63258 and the divisor method is used to convert to the euro. The new price adjustment record is 15.0770 EUR.

**Advanced Price Adjustments without an Actual Amount**

For other types of adjustment records that do not have an actual amount, the generation program creates a copy of the existing record, but no amounts are converted. If the adjustment record is assigned a basis code of 1 (% of base price), the factor value is not converted to the euro.

For example, a price adjustment is 8% ITL of the base price. The new price adjustment record is 8% EUR. The factor value (8) is not converted to the euro. Only the currency code changes.

The following form (Price and Adjustment Schedule, menu G42311) illustrates this example.

![Image of Price Adjustment Detail form]

Notice that the generation program does not convert the factor values (8 and 12) for these price adjustments. It changes only the currency code.
Example: Before and After Creating New Base Price Records

Before You Create New Base Price Records

The following form shows an existing price record before a new euro price record is created. Notice that the item has several currency codes and prices.

The processing options for the generation program in this example are set as follows:

- Mode = Proof
- Effective date = 01/01/99
- Convert to = EUR
- Convert from/exchange rate = BEF 40.7191
- Method = divisor

Even though there are several currency amounts associated with the item number, the generation program will create only one new euro amount, based on the BEF record. This example illustrates the importance of reviewing and, if necessary, revising your current pricing structure before you create new price records in the euro.
The generation program ran in proof mode and produced the following report.

<table>
<thead>
<tr>
<th>Item No</th>
<th>Description</th>
<th>Branch/Plant</th>
<th>Customer Expire</th>
<th>Cur</th>
<th>Unit Price (From)</th>
<th>Credit Price (From)</th>
</tr>
</thead>
<tbody>
<tr>
<td>530571</td>
<td>commuter bike, red</td>
<td>320</td>
<td>01/05/05</td>
<td>BEF</td>
<td>600.0000</td>
<td>14.7351</td>
</tr>
</tbody>
</table>

The generation program then ran in final mode, which produced the following results on the price record:

Notice that the price generation program created only one euro record. Once a euro record is created, the program will not create any additional euro price records for an item unless there is a different effective thru date on the existing record, or a different customer or customer group.

**After You Create New Base Price Records**

The generation program for base price records automatically rounds converted euro amounts according to the display decimals that are set up in the data dictionary for Unit Price (UPRC).
After you run the program in final mode, review the newly created prices on the audit report and adjust them accordingly. For example, the program creates a new price record for 10 DEM as 5.0337 EUR, which you might manually adjust to 5 EUR.

**Processing Options for Base and Advanced Price Generation**

The following processing options are used by the Base Price Generation and Advanced Price Generation programs.

<table>
<thead>
<tr>
<th>Processing Option</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update Options</td>
<td>Proof mode generates an audit report that shows all selected prices to be converted.</td>
</tr>
<tr>
<td></td>
<td>Final mode creates the records and generates an audit report that shows the new prices generated.</td>
</tr>
<tr>
<td>Price Additions</td>
<td>This date determines which price records will be generated. If the expiration date of a price is greater than or equal to this date, a new price record will be generated.</td>
</tr>
<tr>
<td>Conversion Options</td>
<td>The currency code in which you want to create new price records.</td>
</tr>
<tr>
<td></td>
<td>The currency code of the price record that you want to base new price records on and the exchange rate. Currency codes represent base currencies and customer currency codes.</td>
</tr>
<tr>
<td></td>
<td>Multiply or divide the current price by the exchange rate entered in the previous processing option. When converting from a national currency to the euro, you must set this to divide so that you do not violate the no inverse rule.</td>
</tr>
</tbody>
</table>
Data Selection

Base Price Generation

If your company has multiple branch plants with different currencies, you can run the price generation program for base prices multiple times.

Most clients will run the price generation program for base prices by branch/plant, however, it can be run by item number or any other value in the data selection.

For base price records that do not have a branch plant, designate blanks for branch plant in the data selection.

Advanced Price Adjustment Generation

Most clients will run the generation program for advanced prices by adjustment name, however, it can be run by any other value in the data selection.

Application Outside of the EMU

The price generation programs are designed to create new records for base and advanced price adjustments in any alternate currency.
Sales Orders Entered Before 1999

€

If you enter a sales order before 1 January 1999 and do not create an invoice for it before that date, you should update the sales order with the most current unit cost, based on the new irrevocably fixed euro exchange rate. You do this to ensure that an A/R record is not created from an “old” sales order using an “old” exchange rate. If a record is created based on an old exchange rate, a realized gain/loss might be calculated during cash receipt entry. This should not happen after 1 January 1999 because you have already realized gains and losses for euro realization.

The Update Sales/Price Cost program includes a processing option that updates the currency exchange rate on the sales order with the current exchange rate. This processing option prevents you from creating an invoice with an exchange rate that is no longer in effect. When you set the processing option to use the current exchange rate, you ensure that all invoices that you create as of 1 January 1999 use the fixed euro exchange rate.

You must run this program to update your sales orders with the most current unit cost before you create journal entries for Inventory and Cost of Goods Sold (COGS).

From the End of Day Processing menu (G4213), choose Update Sales/Price Cost.
Recurring Invoices, Credit Notes, and the Euro

€

If you have recurring invoices and credit note reimbursements with exchange rates that are no longer effective because of the euro, you will need to adjust them.

This topic describes the following:

☐ Creating new recurring invoices
☐ Managing existing credit notes

Creating New Recurring Invoices

You must cancel any existing recurring invoices that are no longer effective because of the irrevocably fixed euro rates and create new recurring invoices with the new exchange rates.

Follow these steps to create a new recurring invoice:

1. From the Other Invoice and Receipts Entry Methods menu (G03111), choose Recurring Invoice Report.

   Run this report by currency to determine which recurring invoices must be cancelled and recreated. An error message on the report identifies the recurring invoices that need to be recreated.

2. From the Other Invoice and Receipts Entry Methods menu (G03111), choose Standard Invoice Entry.

   Cancel the recurring invoice by removing the values in the Recurring Frequency and Number of Payments fields, in the detail area.

3. On Standard Invoice Entry, create a new recurring invoice with the new currency (EUR), recurring frequency, and remaining number of payments.
Managing Existing Credit Notes

If a customer has a credit amount due, you can transfer the amount to the Accounts Payable system so that the customer can be paid. The introduction of the euro impacts this process.

The following describes how to manage existing credit amounts for EMU member currencies, depending on whether it is before or after 1 January 1999.

Before 1 January 1999

To automatically reclassify your credit notes and unapplied cash receipts for EMU member currencies, you run the Generate Reimbursements program. This program closes out the credit amount and creates a voucher to pay the credit balance. If you do this by the end of 1998, you will not have to manage existing credit amounts after the EMU currency exchange rates are fixed to the euro.

From the Periodic Processes menu (G0321), choose Generate Reimbursements.

After 1 January 1999

If you create a credit memo or unapplied receipt before the EMU exchange rates are irrevocably fixed and you do not transfer it to the Accounts Payable system by the end of 1998, you will need to complete the following steps. These steps are necessary so that when you create transactions after 1 January 1999, you use the new fixed euro exchange rates.
1. From the Periodic Processes menu (G0321), choose Generate Reimbursements.

Run this program in proof mode.

2. Review the list of customers on the proof report and determine the credit amounts that are in EMU member currencies.

3. Do either of the following:
   - Cancel the existing unapplied receipt or credit memo and enter a new one with the correct currency and exchange rate. Pay it later, using the credit note reimbursement program.
   - Close out the existing unapplied receipt or credit memo (document type RM). From the Manual Receipts Processing menu (G0312), choose Receipts Entry. Then create a voucher (document type PV). From the Supplier and Voucher Entry menu (G0411), choose Standard Voucher Entry.

For more information about credit note reimbursements, see Working with Credit Note Reimbursements in the Accounts Receivable Guide.
Alternate Currency Receipt Setup

With the introduction of the euro, the manual receipt application programs have been enhanced to process receipts in an alternate currency. This means that you can now apply receipts to invoices in a currency other than the domestic or foreign currency.

This topic describes the following:

- Setup requirements for alternate currency receipts
- Purpose of an alternate currency clearing account
- How gains and losses are calculated on alternate currency receipts

Setup Requirements for Alternate Currency Receipts

To apply alternate currency receipts to invoices, you must set up the following:

- Alternate currency clearing account and automatic accounting instruction (AAI)
- Alternate currency receipt gain accounts and AAIs
- Alternate currency receipt loss accounts and AAIs
- Processing options for alternate currency receipts
To calculate the gain or loss amount associated with a multi-currency receipt, the system calculates the changes in the exchange rate between the invoice currency and the base company currency. This is the gain or loss amount that the seller agreed to upon invoicing the buyer in a foreign currency.

When you process alternate currency receipts, there is an additional gain or loss on the transaction that is associated specifically with the receipt of the alternate currency. The system creates separate records for this additional gain or loss. You can designate special accounts and set up your automatic accounting instructions to track the additional gain and loss records. For more information, see Processing Alternate Currency Receipts.

Alternate Currency Receipt Clearing Account and AAI (R7)

To record a receipt in an alternate currency, you must set up an alternate currency clearing account to track the conversion of the receipt amount. The receipt amount is recorded in the alternate currency and must be converted to the currency of the invoice. This clearing account provides an audit trail from the cash account entry in the receipt currency to the offset trade account entry in the invoice currency.

The alternate currency clearing account is assigned to AAI item R7 and must follow these rules:

- It must be in the same company as the bank account from which the receipt is made.
- It cannot be a monetary account.
- It must be company specific. You cannot use company 00000 as a default.
- It must include a business unit.

For more information about how transactions move in and out of the alternate currency clearing account, see Processing Alternate Currency Receipts.

Alternate Currency Receipt Gain Accounts and AAIs (RY)

To record a gain incurred on an alternate currency receipt, you must set up a new gain account. The account stores the gains that are realized when the domestic amount of a receipt is greater than the amount derived by calculating from the alternate currency to the invoice currency to the domestic currency. The amount, which should be minimal, occurs because of rounding issues and appears in the alternate currency gain account.

The gain account for the alternate currency receipt is assigned to AAI item RY. The AAI search sequence used during receipt processing is as follows:

1. The program searches for alternate currency code and company.
2. If not found, the program searches for G/L offset and company.
Alternate Currency Receipt Setup

3. If not found, the program searches for company.

4. If not found, the program searches for alternate currency code and company 00000.

5. If not found, the program searches for G/L offset and company 00000.

6. If not found, the program searches for company 00000.

This is the same AAI search sequence that is used for standard gains and losses.

Alternate Currency Receipt Loss Accounts and AAIs (RZ)

To record a loss incurred on an alternate currency receipt, you must set up a loss account for an alternate currency receipt. This account shows the losses realized when the domestic amount of a receipt is less than the amount derived by calculating from the alternate currency to the foreign currency to the domestic currency.

The loss account for the alternate currency receipt is assigned to AAI item RZ. AAI item RZ follows the same search sequence described for AAI item RY.

Processing Options for Alternate Currency Receipts

The new processing options for alternate currency receipts in Receipts Entry (P03103) are as follows:

<table>
<thead>
<tr>
<th>Processing Options</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternate Currency</td>
<td>Enter 1 to process receipts in the alternate currency method. Leave this</td>
</tr>
<tr>
<td>Processing</td>
<td>field blank to prohibit alternate currency receipt processing.</td>
</tr>
<tr>
<td>Draft Processing</td>
<td>If you use alternate currency processing, this field must be left blank.</td>
</tr>
</tbody>
</table>

Purpose of an Alternate Currency Clearing Account

Since the original invoice amount recorded against the receivables trade account is in the domestic or foreign currency, the offset amount must also be in the same currency. To calculate this offset amount, the receipt currency is converted to the domestic or foreign currency and then stored in the clearing account.

The alternate currency clearing account will balance on the domestic side, but not on the foreign side. This is because the foreign side contains different currencies, which will never balance.
The entries for an alternate currency receipt are as follows:

<table>
<thead>
<tr>
<th>Alternate Currency Receipt Amount</th>
<th>Foreign Receipt Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternate Currency Clearing Account</td>
<td>Gains/Losses Receivable Account</td>
</tr>
<tr>
<td>Cash Account</td>
<td>Alternate Currency Clearing Account</td>
</tr>
</tbody>
</table>

The alternate currency clearing account shows the audit trail from the cash account entry in the receipt currency to the offset entry to the trade account in the foreign currency. In other words, the alternate currency clearing account shows the audit trail of the conversion of the alternate currency into the foreign currency of the original invoice.

**How Gains/Losses Are Calculated on Alternate Currency Receipts**

When a German company submits an invoice to a French company in French francs and the French company pays in euros, there is no exchange rate gain or loss. This is because European Monetary Union (EMU) member exchange rates are fixed to the euro as of 1 January 1999. When the same Germany company pays a supplier in U.S. dollars or another currency outside of the EMU, the company may record a gain or loss on the receipt.

Gains and losses are calculated using the exchange rates that are effective on the date of the receipt. For alternate currency receipts, two gains or losses are recorded on two different entries.

One entry is calculated based on the fluctuation of the exchange rates between the buyer’s currency and the seller’s currency. This gain or loss is the same gain or loss that would have been realized if the receipt was not in an alternate currency.

The other entry is the difference between the following amounts:

1. The amount calculated by converting the receipt currency to the buyer’s currency and then converting to the seller’s currency.
2. The amount calculated by converting from the alternate currency receipt directly to the seller’s currency (this is the amount that is actually paid from the bank account).

A gain is recorded if the amount that is actually paid (2) is greater than the amount calculated by converting the receipt currency to the buyer’s currency to the seller’s (domestic) currency (1).
Processing Alternate Currency Receipts

According to the “no compulsion, no prohibition” principle, invoices and payments can be handled as follows:

- Suppliers can submit invoices in their national currency or the euro from 1 January 1999 through 31 December 2001.
- Companies can pay vouchers in their national currency or the euro from 1 January 1999 through 30 June 2002.

Based on this principle, companies can choose whether to submit invoices in the euro or their national currency, as long as it is within the euro transition period.

During the euro transition period, companies can pay invoices in the euro even if the invoice they receive is in a national currency. For example, if a French company submits an invoice in deutsche marks to a German company, the German company can pay in euros. Alternatively, the company could pay in deutsche marks.

This topic describes the following:

- Processing alternate currency receipts
- Additional gains/losses for alternate currency receipts
- Application outside of the EMU

Before you process alternate currency receipts, make sure you complete the setup requirements described in *Alternate Currency Receipt Setup.*
Processing Alternate Currency Receipts

Processing alternate currency receipts is similar to processing other receipts. The differences between them is described in the following tasks:

- Entering invoice match receipts
- Creating chargebacks

The system processes alternate currency receipts based on the setup you do before you process the receipts. Minimal user intervention is required.

You cannot process alternate currency receipts using batch cash receipts, electronic data interchange (EDI) transactions, or drafts.

Entering Invoice Match Receipts

When you receive a payment from a customer, you match the receipt to an invoice or group of invoices. Matching receipts to open invoices is the most common method of applying receipts.

The ability to enter an alternate currency receipt is controlled by a new processing option in the Receipts Entry program. For example, if company policy does not allow alternate currency receipts, this processing option makes it possible to prevent the application of third currency receipts. If the processing option is set up to allow alternate currency receipts, the system determines whether a receipt is in an alternate currency on a transaction-by-transaction basis.

To match invoices with alternate currency receipts, you must do the following on Receipts Entry:

- Enter a customer in the Display Account field.
- Enter a company in the Company field.
- Enter T (third) in the Mode field to indicate that you are processing alternate currency receipts.
- Enter the currency code of the alternate receipt in the Currency Code field. This field is used for query purposes when you display invoices for standard receipt processing.
- Enter the G/L date. This is the date used to calculate the currency exchange rates.

For alternate currency receipt processing, the Currency Code field in combination with the Mode field designates the alternate currency to which the system will convert the open amounts for the applicable invoices for alternate receipt processing.
The system converts the open amounts of the applicable invoices into the alternate currency and displays the converted open amounts. The amount is converted using the exchange rate between the alternate currency and the invoice currency. The exchange rate is retrieved from the Currency Exchange Rates table (F0015) based on the G/L date.

**Partial Receipts**

The system processes partial alternate currency receipts the same as full alternate currency receipts. The alternate currency amount applied to the invoice is converted to the invoice currency. The converted amount in the invoice currency is then applied to the invoice.

**Spot Rates**

You cannot enter spot rates on transactions between two EMU member currencies. Spot rates are not allowed between two EMU member currencies because of the irrevocably fixed euro rate. See *Setting Up Euro Currency Relationships* for more information about triangulation and spot rates.
You can enter a spot rate on a transaction between an EMU and a non-EMU member currency when you match receipts to invoices. Specify the spot rate in the Exchange Rate field.

**Error Messages and Troubleshooting**

You must set up the new processing option for the Receipts Entry program to allow receipts to be paid in an alternate currency. If the processing option is not set correctly and you specify an alternate currency for the receipt, you will get an error.

Unapplied cash receipts with different G/L dates might have different exchange rates. Because the system uses the G/L date to determine the exchange rate gain or loss on a transaction, you can spread only one unapplied cash receipt at a time.

**Creating Chargebacks**

When you apply a receipt to an invoice, you can create a chargeback invoice for a disputed amount. For example, a customer might issue payment for an invoice, less the shipping costs. It may be your company policy to close the original invoice and create a chargeback for the amount of the discrepancy.

You can create chargebacks for a specific invoice and standalone chargebacks for multiple invoices.

The system creates chargebacks for a specific invoice in the invoice currency. To create a chargeback that applies to a specific invoice, you must specify the original invoice. The system uses this information to calculate the chargeback amount.

The system creates standalone chargebacks in the receipt currency. To create a standalone chargeback, do not specify the original document.

**Additional Gains/Losses for Alternate Currency Receipts**

To calculate the gain or loss amount associated with a multi-currency receipt, the system calculates the changes in the exchange rate between the invoice currency and the base company currency. This is the gain or loss amount that the seller agreed to upon invoicing the customer in a foreign currency.
When you process alternate currency receipts, the system might calculate an additional gain or loss that is specifically associated with the receipt of the alternate currency. This gain or loss is derived because the domestic amount of the receipt can be calculated using one of two methods. The first method is to convert the alternate currency receipt amount directly to the domestic currency. The second is to convert the alternate currency receipt amount to the invoice currency and then to convert the invoice currency receipt amount to the domestic currency. If the results of these two methods are not the same, the system recognizes the difference as an additional gain or loss amount.

If all the exchange rates originate from the same source at the same period in time, there is typically no difference in the calculated domestic amounts and therefore, no additional gain or loss.

**T-Accounts for Alternate Currency Receipt Processing**

The following T-accounts show how transactions (listed by document type) move in and out of accounts during alternate currency receipt processing.

<table>
<thead>
<tr>
<th></th>
<th>Revenue</th>
<th>Trade</th>
<th>Cash</th>
<th>Write-off</th>
<th>Clearing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RI</strong></td>
<td>1,626.08 FRF</td>
<td>1,626.08 FRF</td>
<td>10,000.00 BEF</td>
<td>10,000.00 BEF</td>
<td></td>
</tr>
<tr>
<td><strong>RC</strong></td>
<td>1,626.09 FRF</td>
<td>10,000.08 BEF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>R7</strong></td>
<td>1,626.09 FRF</td>
<td>251.77 EUR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RA</strong></td>
<td>0.01 FRF</td>
<td>0.01 EUR</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Alternate currency entries are italicized)
Example: German Company Receives EUR for FRF Invoice

This example illustrates a German company that issues a French franc (FRF) invoice, which is subsequently paid in euros, an alternate currency.

During alternate currency processing, the receipt amount (EUR) is compared to the invoice amount (FRF) to determine if the debt has been satisfied. Fluctuations between the domestic and invoice currencies cause the gain or loss. Since the DEM and FRF rates are fixed against the euro as of 1 January 1999, there is no exchange rate gain or loss.

<table>
<thead>
<tr>
<th>Description</th>
<th>Currency</th>
<th>Amount</th>
<th>Exchange Rate 01/01/99</th>
<th>Exchange Rate 02/01/99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invoice (domestic currency)</td>
<td>DEM</td>
<td>200</td>
<td>1 EUR = 1.98166 DEM</td>
<td></td>
</tr>
<tr>
<td>Invoice (foreign currency)</td>
<td>FRF</td>
<td>669.40</td>
<td>1 EUR = 6.63257 FRF</td>
<td></td>
</tr>
<tr>
<td>Receipt</td>
<td>EUR</td>
<td>100.93</td>
<td></td>
<td>1 EUR = 1.98166 DEM</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 EUR = 6.63257 FRF</td>
</tr>
<tr>
<td>Standard gain/loss</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternate gain/loss</td>
<td>DEM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Write-off</td>
<td>DEM</td>
<td>0.01</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There is not a published exchange rate between DEM and FRF; therefore, conversions must triangulate through the euro. Since the DEM and FRF rates are fixed to the euro, the receipt exchange rates are the same as the invoice exchange rates.

**Foreign Currency Invoice (FRF) Calculation**

The foreign currency invoice on 10 January is 669.40 FRF, which is 200.00 DEM in the billing company’s domestic currency.

\[ (((669.40 \text{ FRF} \times 1.98166) / 6.63257) = 200 \text{ DEM}) \]
**Alternate Currency Receipt (EUR) Calculation**

The receipt on 1 February is 100.93 EUR.

\[
\frac{669.40}{6.63257} = 100.93 \text{ EUR}
\]
**Foreign Currency Amount Applied to Invoice**

The foreign currency (FRF) amount applied to the invoice is calculated as follows:

$$100.93 \text{ EUR} \times 6.63257 = 669.43 \text{ FRF}$$

(6.63257 is the exchange rate in effect on the day of receipt, as well as the day of invoice.)

When an amount is converted from a national currency to the euro and subsequently converted back into the national currency, there might be a minor discrepancy due to rounding.

In this example, when the FRF amount is converted to euros, it is rounded to euro cents (100.93). When the rounded amount is converted back into FRF, there is a discrepancy of 0.03 FRF or 0.01 DEM. The system applies 669.40 of the 669.43 FRF to the open invoice and 0.03 FRF to the write-off account, as directed by AAI.

**Domestic Currency Amount Applied to Invoice**

The domestic currency (DEM) amount applied to the invoice is calculated from FRF to DEM through the euro, using the triangulation method.

$$((669.40 \text{ FRF} \times 1.98166) / 6.63257) = 200.00 \text{ DEM}$$

(1.98166 is the EUR to DEM exchange rate and 6.63257 is the EUR to FRF exchange rate.)

**Alternate Currency Gain or Loss Calculation**

The alternate currency gain or loss is calculated as the domestic amount applied to the bank minus the domestic amount applied to the invoice.

$$200.01 \text{ DEM} - 200.01 \text{ DEM} = 0.00 \text{ DEM}$$

The system calculates the alternate currency gain/loss based on the following amounts:

- Domestic amount applied to bank
  
  $$100.93 \text{ EUR} \times 1.98166 = 200.01 \text{ DEM}$$

  (1.98166 is the EUR to DEM exchange rate)

- Domestic amount applied to Invoice
  
  $$100.93 \text{ EUR} \times 6.63257 = 669.43 \text{ FRF}$$
Application Outside of the EMU

Example: Canadian Company Receives EUR for JPY Invoice

This example illustrates a Canadian dollar (CAD) base currency company that issues a U.S. dollar (USD) invoice that is subsequently paid with Japanese yen (JPY), the alternate currency. In this example, the Canadian company is using the divisor method for multi-currency transactions. Note that all currencies in this example are non-EMU currencies, which means that triangulation is not involved.

<table>
<thead>
<tr>
<th>Description</th>
<th>Currency</th>
<th>Amount</th>
<th>Exchange Rate 01/01/99</th>
<th>Exchange Rate 02/01/99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invoice (domestic currency)</td>
<td>CAD</td>
<td>200.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invoice (foreign currency)</td>
<td>USD</td>
<td>142.57</td>
<td>1.00000 USD = 1.4028 CAD</td>
<td></td>
</tr>
<tr>
<td>Receipt</td>
<td>JPY</td>
<td>18,570</td>
<td></td>
<td>1.00000 USD = 1.4357 CAD</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.00000 CAD = 90.720 JPY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.00000 USD = 130.25 JPY</td>
</tr>
<tr>
<td>Standard gain/loss</td>
<td>CAD</td>
<td>4.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternate gain/loss</td>
<td>CAD</td>
<td>0.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Write-off</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Foreign Currency Invoice (USD) Calculation

The foreign currency invoice on 1 January is 142.57 USD, which is 200.00 CAD in the billing company’s domestic currency.

\[(142.57 / 0.712860 = 200 \text{ CAD})\]

Alternate Currency Receipt (JPY) Calculation

The receipt on 1 February is 18,570 JPY.
Foreign Currency Amount Applied to Invoice

The foreign currency (USD) amount applied to the invoice is calculated as follows:

\[
18,570 \text{ JPY} / 130.25 = 142.57 \text{ USD}
\]

(130.25 is the exchange rate in effect the day the receipt was deposited.)

Domestic Currency Amount Applied to Invoice

The domestic currency (CAD) amount applied to the invoice is calculated as follows:

\[
142.57 \text{ USD} / 0.712860 = 200.00 \text{ CAD}
\]

(0.712860 is the exchange rate in effect the day the invoice was generated. This rate is the system-generated reciprocal of the 1.4028 exchange rate because the exchange rate method is the divisor method. The reciprocal is calculated because this transaction is between non-EMU currencies.)

Regular Gain/Loss Calculation

The gain or loss created by the exchange rate fluctuations between the invoice currency and the domestic currency is calculated as follows:

\[
142.57 \text{ USD} / 0.696524 = 204.69 \text{ CAD}
\]

(0.696524 is the exchange rate in effect the day of the receipt)

\[
142.57 \text{ USD} / 0.712860 = 200.00 \text{ CAD}
\]

(0.712860 is the exchange rate in effect the day of the invoice)

\[
204.69 \text{ CAD} - 200.00 \text{ CAD} = 4.69 \text{ CAD}
\]
Alternate Currency Gain/Loss Calculation

The domestic amount of the receipt, which is the amount debited to the bank, is calculated as follows:

18,570 JPY / 90.720 = 204.70 CAD

(90.720 is the exchange rate in effect the day the receipt was deposited)

The alternate currency gain/loss amount is calculated as follows:

204.70 - 204.69 = 0.01 CAD

J.D. Edwards software assumes that exchange rates originate from the same source at the same period in time. These rates are used to calculate the gains and losses between the domestic currency and the invoice currency, as well as the conversion amounts between the domestic and alternate currency and the invoice and alternate currency.

The use of exchange rates from different sources at different periods in time generates additional gains and losses. Differences that are derived from different exchange rates would be posted to an alternate currency gain/loss account through AAIs.
Viewing Customer Amounts in the Euro

Before, during, and after converting your base currency to the euro you can view your customer amounts in three currencies: domestic, foreign, and the euro (or other “as if” currency). Viewing customer amounts in an as if currency, such as the euro, allows you to view amounts as if they were stored in a currency other than the currency in which they were actually stored.

For example, you work for a French company that is going to convert to the euro in 2000. Before your company actually converts to the euro, you can view and compare invoice amounts in your domestic currency (French francs) and the euro. Being able to view and compare these amounts should help to ease your transition to the euro.

In the following example, customer invoice amounts display in FRF (French francs), which is the domestic currency of a French Customer.
In the next example, the currency code is changed to * to display all invoices, regardless of currency.

In the next example, all invoices are redisplayed in the euro.

The as if currency (EUR) amounts that appear on this form are not written to a table, but are stored in temporary memory. One of the advantages of this enhancement is that it does not impact your disk space.
The following report shows journal entries for the alternate currency clearing account (AAI item R7) after the 1,200.00 FRF invoice was paid in the euro.

```
<table>
<thead>
<tr>
<th>Do Document</th>
<th>Date</th>
<th>Explanation</th>
<th>SubAc-Ty/Asset Number</th>
<th>Debit</th>
<th>Credit</th>
<th>LT Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC 67562673</td>
<td>02/01/99</td>
<td>Alternate Currency Cl</td>
<td>FRF</td>
<td>320.7502.CLEAR</td>
<td>1,200.03</td>
<td>AA</td>
</tr>
<tr>
<td>RC 67562673</td>
<td>02/01/99</td>
<td>Minor Amount Write-Of</td>
<td>FRF</td>
<td>320.6250</td>
<td></td>
<td>.03– AA</td>
</tr>
<tr>
<td>R7 67562673</td>
<td>02/01/99</td>
<td>First Bank of Paris</td>
<td>FRF</td>
<td>320.1110.FRF</td>
<td>1,200.03</td>
<td>AA</td>
</tr>
<tr>
<td>R7 67562673</td>
<td>02/01/99</td>
<td>First Bank of Paris</td>
<td>EUR</td>
<td>320.1110.FRF</td>
<td>180.93</td>
<td>CA</td>
</tr>
<tr>
<td>R7 67562673</td>
<td>02/01/99</td>
<td>Alternate Currency Cl</td>
<td>FRF</td>
<td>320.7502.CLEAR</td>
<td>1,200.03– AA</td>
<td></td>
</tr>
<tr>
<td>R7 67562673</td>
<td>02/01/99</td>
<td>Alternate Currency Cl</td>
<td>EUR</td>
<td>320.7502.CLEAR</td>
<td>180.93– CA</td>
<td></td>
</tr>
<tr>
<td>AE 6069886</td>
<td>02/28/99</td>
<td>Trade Accounts Receiv</td>
<td>FRF</td>
<td>320.1210</td>
<td></td>
<td>1,200.00– AA</td>
</tr>
</tbody>
</table>
```

This topic describes the following:

- Customer programs that use the euro display
- Dates that affect the customer amounts you view
- Viewing invoices in the euro
- Viewing sales orders in the euro
- Application outside of the EMU

**Customer Programs That Use the Euro Display**

To view your customer amounts in the euro, or other as if currency, you use the euro display functionality. This functionality is available in the following programs:

- Customer Ledger Inquiry (P032002)
- Print Customer Ledger (P032002P)
- Online Invoice (P42230)
- Customer Service (P42045)
Dates that Affect the Customer Amounts You View

Before you view customer amounts in the euro, it is important to understand the different dates that affect the customer invoice and sales order amounts you view on the Customer Ledger and Customer Service Inquiry forms. These dates are:

- The effective date on the Set Daily Transaction Rates form. The inquiry program searches for the most recent effective date for a currency and uses the corresponding exchange rate in the currency calculation.
- The From and Thru Dates on the inquiry form. This date range determines which transactions appear on the form.
- One of the following dates, which is used to retrieve the transaction rate:
  - As of date in the processing options. If the as of date is blank, the program uses the following:
  - Thru Date on the inquiry form. If the processing option and Thru date are blank, the program uses the following:
  - System date.

By understanding these dates and how the inquiry program uses them, you can ensure that you specify the correct date when you view your customer amounts.

The Thru Date on the form does not override the as of date in the processing options. For this reason, you might want to set up two different versions of this program, one with an as of date in the processing options, the other without an as of date (which allows you to use the Thru Date for the exchange rate).

Viewing Invoices in the Euro

The exchange rates for Economic and Monetary Union (EMU) member currencies will be fixed to the euro as of 1 January 1999. Invoices entered before this date are based on prior exchange rates, whereas invoices entered as of this date will be based on the fixed euro rate.

From the Customer and Invoice Entry menu (G0311), choose Customer Ledger Inquiry.
To toggle between the domestic currency and the euro (or other as if currency), press F19. To print the euro amounts on a report, press F21 while viewing the euro amounts.

Remember that to view amounts by date, you must enter 2 (net due date), 3 (invoice date), or 8 (G/L Date) in the Sequence field, as you have done in previous releases of WorldSoftware. If you do not enter one of these values, you will not see amounts on the form.

You can display euro amounts on the Customer Ledger Inquiry form in the following formats:

**Gross / Open**

Amounts in the Gross and Open columns display in the euro, or other alternate currency, as designated in the processing option.

**Domestic Gross / Foreign Gross**

Amounts in the Domestic Gross and Open columns display in the euro currency. The foreign Gross and Open column amounts continue to display in the foreign transaction amounts.

This enhancement was not designed for currency restatement. It does not handle gains/losses, out-of-balance transactions caused by rounding, or integrity between tables. For exact amounts when working with an alternate currency, continue to use the currency restatement program.
Viewing Sales Orders in the Euro

As of 1 January 1999, the exchange rates for EMU member currencies will be fixed to the euro. Sales orders entered before this date are based on exchange rates that were in effect prior to the rates being fixed. Sales orders entered after this date are based on the fixed euro exchange rates.

Regardless of whether you enter a sales order in a domestic or foreign currency, you can view the amount in the euro from either of the following forms:

- Online Invoice
- Customer Service

Online Invoice

When entering a domestic or foreign sales order, you can view the amount in the euro as follows:

- While you are entering the sales order. This allows you to view the amount in euros while you are entering the sales order. This is useful if you enter an order while speaking with a customer who wants to know what the order amount is in euros.

  To view the euro amount while you are entering the sales order, choose Enter Orders from the Sales Order Processing menu (G4211). Enter your sales order as usual, then press F6 (Online Invoice). To toggle between the domestic currency and the euro, press F19. To print the converted amounts on a report, press F21 while viewing the euro amounts.

- After you enter the sales order. This allows you to view the amount of an invoice in euros after you enter the sales order. This is useful if a customer calls with a question about an existing sales order.

  To view the euro amount after you enter a sales order, choose Online Invoice from the Sales Order Inquiries menu (G42112). To toggle between the domestic currency and the euro press F19. To print the converted amounts on a report, press F21 while viewing the euro amounts.

Customer Service

You can also view sales order amounts in the euro after you enter them by accessing the Customer Service form. This form, unlike Online Invoice, allows you to view multiple sales orders in the euro at one time.
From the Sales Order Inquiries menu (G42112), choose Customer Service.

To toggle between the domestic currency and the euro, press F18. (For all other inquiry programs, this is F19.) To print the converted amounts on a report, press F21 while viewing the euro amounts.

**Processing Options**

To use the euro display functionality for Customer Ledger Inquiry, Online Invoice, and Customer Service, you must set the following process options:

<table>
<thead>
<tr>
<th>Processing Option</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>As If Currency Display</td>
<td>The currency code in which you want to view as-if amounts. If left blank, amounts display in their original currency.</td>
</tr>
<tr>
<td>As Of Date</td>
<td>The date to use for calculating the exchange rate for the as-if currency. If left blank, the Thru Date is used. If both the processing option and the Thru Date are blank, the system (today’s) date is used.</td>
</tr>
</tbody>
</table>
Application Outside of the EMU

The euro display functionality, which allows you to view amounts in your domestic currency and an alternate currency, was designed for viewing amounts between two currencies that are irrevocably fixed to one another, for example between the DEM and the euro.

You can use the euro display functionality to view and compare amounts between any currencies, and not just EMU member currencies. For example, you can view amounts in an alternate currency, such as the Japanese yen, and compare those amounts to your domestic currency amounts. You should be aware, however, that if the exchange rates are not fixed, there are limitations. The invoice amount you view, for example, may not be the same amount as the actual receipt because of the fluctuating exchange rates.

One of the advantages to the euro display functionality is that it does not impact disk space. The as if amounts you view are kept in temporary memory and are not stored in a table.
Suppliers and the Euro

The following timeline is based on the principles of “no compulsion, no prohibition.” These principles basically state that companies are under no obligation to transact business in the euro beginning on 1 January 1999. The principles also state that companies cannot prohibit their suppliers or customers from transacting business in the euro.

The timeline illustrates how Economic and Monetary Union (EMU) member nations will be expected to handle receipts and payments during the euro transition period, from 1 January 1999 to 1 July 2002.

- Pay invoices and receive payment in national currency or euro
- Submit invoices in national currency or euro
- Provide pricing information in national currency or euro

- Pay invoices and receive payment in national currency or euro
- Submit invoices in euro only
- Provide pricing information in euro only
- National notes and coins will start being withdrawn

During the euro transition period, your company must be prepared to process supplier invoices and purchase orders in the euro. This is regardless of whether the original transaction was in another currency or whether your company has converted its base currency to the euro.

For example, a French company can continue to pay a German supplier in deutsche marks. However, it should be able to process supplier’s invoices in euros, if that is how the German supplier chooses to submit them.
In addition to being able to submit payments to suppliers and process invoices in the euro, companies might want to track their supplier statistical amounts and balances in the euro. This includes year-to-date and prior year vouchered amounts, minimum and maximum order values, and so on.

Converting prices to the euro presents new challenges to companies since it becomes easier for suppliers to compare prices between countries. Inevitably, prices for products in the euro will vary across countries because the cost of doing business varies across countries.

You run the supplier conversion and price generation programs during the euro transition period. These conversion programs are part of the enhancements in A7.3 CU9 and subsequent cumulative updates. Do not confuse them with the euro conversion programs. The euro conversion programs, which are in E9, convert a company’s base currency to the euro.

**Checklist: Suppliers and the Euro**

Complete the items in the following checklist to convert a supplier or group of suppliers to the euro, calculate gains and losses for A/P euro realization, and process payments in the euro. The checklists are divided into two categories:

- One-time only tasks
- Periodic tasks

**One-Time Only Tasks**

- Set up accounts, AAIIs, and processing options for alternate currency payment processing
- Calculate A/P gains and losses for euro realization
- Understand how the gains and losses program handles purchase orders entered before 1999
- Create new recurring vouchers in the euro

**Periodic Tasks**

- Convert supplier address book amounts and address book currency to the euro and change default supplier currency to the euro (manually or with conversion program)
- Create new cost records in the euro (manually or with conversion program)
- Process alternate currency payments in the euro
Topics in This Section

This section, *Suppliers and the Euro*, includes the following topics:

- Euro Realization in Accounts Payable
- Converting Supplier Amounts to the Euro
- Creating New Cost Records in the Euro
- Purchase Orders, Vouchers, and the Euro
- Alternate Currency Payment Setup
- Processing Alternate Currency Payments
- Viewing Supplier Amounts in the Euro
- Electronic Payments in the Euro
Euro Gain and Loss Realization for Accounts Payable

After 31 December 1998, the exchange rates between Economic and Monetary Union (EMU) member currencies and the euro will be irrevocably fixed. This means that exchange rates will no longer fluctuate and, therefore, member nations will no longer record gains and losses on transactions that are created on or after 1 January 1999.

Accounting for the Introduction of the euro, a document published by the European Commission, provides several guidelines about euro gain and loss realization. Within this document, the prudence principle states the following:

*Exchange losses on monetary assets and liabilities are normally taken into account immediately. Exchange gains on monetary liabilities should also be taken into account as they reduce the amount which will ultimately be payable. There is no doubt about the realization of the exchange gains on these liabilities because financial statements are drawn up under the assumption that liabilities are settled upon maturity at face value.*

This topic describes the following:

- When to calculate euro gain and loss realization for A/P
- A/P setup requirements for euro gain and loss realization
- Calculating euro gain and loss realization for A/P

When to Calculate Euro Gain and Loss Realization for A/P

According to European Union (EU) regulations, companies in all EMU member nations must realize losses on exchange differences between EMU member currencies by 31 December 1998, regardless of whether they are on a calendar fiscal year and regardless of the base currency their company uses for accounting purposes. This includes losses on open vouchers.
Each EMU member nation has its own regulations about when gains between EMU member currencies must be realized. For example, a nation might have the following requirements:

- Losses on EMU currency transactions must be realized in accounts closing 31 December 1998
- Gains on EMU currency transactions can be realized as late as 31 December 1999

Companies can calculate gains and losses for euro realization at the end of 1998, regardless of whether they plan to convert their base currency to the euro in 1999. You can calculate your A/P gains and losses for euro realization before or after you convert your company’s base currency to the euro. The following explains why:

The euro conversion programs (E9) convert every entry and offsetting entry in your system from your base currency to the euro. For example, your base currency is Belgian francs. Your transactions are in Belgian francs, as well as your gains and losses. When you run the conversion, each transaction is converted to the equivalent euro amount. As a result, it does not matter whether you calculate gains and losses for euro realization before or after the euro conversion.

**A/P Setup Requirements for Euro Gain and Loss Realization**

Before you can calculate and record A/P realized gains and losses for the euro, ensure that the following are set up correctly:

- Realized gain and loss accounts
- Automatic accounting instructions (AAIs)
- Processing options

**Realized Gain and Loss Accounts**

For euro realization, you must set up realized gain and loss accounts for A/P. If you calculate gains and losses during automatic payment processing, these accounts already exist. Additionally, you might want to set up special A/P trade accounts for euro gain and loss realization.

If you use the Currency Gains and Losses program to calculate unrealized gains and losses, the unrealized gain and loss accounts already exist. You will continue to use these accounts for non-EMU currency transactions.
**Automatic Accounting Instructions (AAIs)**

When you calculate realized and unrealized gains and losses, the system uses AAIs to distribute the gain or loss to the correct G/L account. Typically, the AAI items for A/P are (xxx represents the currency code and yyy represents the G/L offset code):

- PCxxx for payables trade
- PCyyy for payables trade offsets
- PGxxx for realized gains
- PLxxx for realized losses
- PVxxx for unrealized gains
- PWxxx for unrealized losses
- PRyyy for unrealized gain/loss offsets

Typically, AAI item PRyyy points the offset amounts to an A/P trade account. However, you might choose to point the offset amounts to an account that rolls up into the A/P trade account.

Before you run the Currency Gains and Losses program, you must change or add unrealized AAI items by currency (PVxxx, PWxxx, and PRyyy) to point from unrealized accounts to realized accounts. Accrual entries and realized gain and loss entries flow in and out of these realized accounts until you completely process the vouchers that were open before the exchange rates for the EMU member currencies were irrevocably fixed.

You will no longer calculate unrealized gains and losses against transactions between EMU member nations since exchange rates do not fluctuate after 1 January 1999. This explains why you can change the unrealized AAI item to point to a realized account.

You must set up AAI items PV and PW by currency code. The currency code separates realized and unrealized transactions within the same company, which allows you to continue to recognize unrealized gains and losses for non-EMU currencies. If only EMU member currency companies are set up in your environment, you may not have to set up AAI items PV and PW by company and currency.

If most of the gains and losses you realize are based on EMU currencies and your gain and loss AAIs are not currently set up by currency, you can save time by doing the following:

- Set up new gain and loss AAIs by currency for each non-EMU currency.
- Change the “old” gain and loss AAIs (these are default AAIs and do not have a currency code) to point to realized accounts, as described in this documentation. This would cause all EMU currency gains and losses to be directed to a realized account.
**Example: AAI Setup for Two Companies**

<table>
<thead>
<tr>
<th>Company</th>
<th>Domestic</th>
<th>Foreign</th>
<th>AAI Item</th>
<th>Type of Account</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company 1</td>
<td>DEM</td>
<td>FRF</td>
<td>PVFRF</td>
<td>Realized Gain</td>
<td>Both EMU currencies</td>
</tr>
<tr>
<td>Company 1</td>
<td>DEM</td>
<td>USD</td>
<td>PVUSD</td>
<td>Unrealized Gain</td>
<td>One non-EMU currency</td>
</tr>
<tr>
<td>Company 2</td>
<td>USD</td>
<td>FRF</td>
<td>PVFRF</td>
<td>Unrealized Gain</td>
<td>One non-EMU currency</td>
</tr>
<tr>
<td>Company 2</td>
<td>USD</td>
<td>DEM</td>
<td>PVDEM</td>
<td>Unrealized Gain</td>
<td>One non-EMU currency</td>
</tr>
</tbody>
</table>

AAIs by Currency: Company 1 has foreign vouchers in FRF and USD. The company directs the gain or loss related to the FRF voucher to a realized account and the gain or loss related to the USD voucher to an unrealized account.

AAIs by Company: Company 1 and company 2 both have foreign vouchers in FRF so the AAI item is PVFRF. Company 1 directs the AAI item to a realized account, while company 2 directs the same AAI item to an unrealized account.

**Processing Options for Currency Gains and Losses**

The EU and EMU member nations have regulations about how and when companies calculate euro gains and losses.

To handle the various regulations, a processing option for the Currency Gains and Losses program allows you to create journal entries for:

- Gains and losses
- Gains only
- Losses only
- No journal entries (proof mode)

This new processing option provides the flexibility that allows EMU member nations to realize gains over an extended period of time.

If you set the processing option for gains only and there are losses only, the program does not create journal entries in final mode. Instead, it prints a report with a message that no journal entries were created. This message also prints if you set the processing option for losses only and there are gains only.

The functionality of this new processing option has existed in the Monetary Account Valuation program in previous releases, and remains in this cumulative update.
Calculating Euro Gain and Loss Realization for A/P

From the Multi-Currency Monthly Valuation menu (G1121), choose Currency Gains and Losses.

To calculate euro gains and losses on exchange differences on open A/P transactions, you run the Currency Gains and Losses program. This program was enhanced to realize gains and losses for open EMU currency transactions for A/P. The gains and losses that this program creates and the gains and losses that are created during payment processing comprise the solution for euro gain and loss realization. Euro realization does not impact the original A/P Ledger transactions (F0411).

The payment processing program has not changed. It continues to calculate realized gains and losses as usual.

Set up different DREAMWriter versions of this program to calculate gains only, losses only, and both gains and losses for euro realization. If you set up different versions, you do not have to change the processing option each time you run the program for a different type of calculation.

Example: Euro Loss Realization for A/P

This example shows realized losses on open vouchers for a one-month period. In this example, the Currency Gains and Losses program is set to create journal entries for losses only. The standard payment process will create journal entries for gains in January 1999.

15 December 1998

Company 1 uses DEM as its base currency and has four open vouchers as of 15 December 1998.

This example uses a USD voucher (PV4) to show that when the program calculates realized gains and losses for EMU member currencies, it does not change how it processes unrealized gains and losses for non-EMU member currencies.

<table>
<thead>
<tr>
<th>Voucher</th>
<th>Domestic Amounts</th>
<th>Foreign Amounts</th>
<th>Exchange Rate 15/12/98</th>
</tr>
</thead>
<tbody>
<tr>
<td>PV 1</td>
<td>597.54 DEM</td>
<td>2000.00 FRF</td>
<td>0.29877</td>
</tr>
<tr>
<td>PV 2</td>
<td>484.70 DEM</td>
<td>10000 BEF</td>
<td>0.04847</td>
</tr>
<tr>
<td>PV 3</td>
<td>2390.16 DEM</td>
<td>8000.00 FRF</td>
<td>0.29877</td>
</tr>
<tr>
<td>PV 4</td>
<td>881.92 DEM</td>
<td>500.00 USD</td>
<td>1.76383</td>
</tr>
</tbody>
</table>
31 December 1998

On 31 December 1998, the exchange rates are irrevocably fixed for EMU member currencies. As a result, the exchange rates are calculated using triangulation and the no inverse rule, based on the following (unofficial) rates:

- 1 EUR = 6.45863 FRF
- 1 EUR = 1.0235 USD
- 1 EUR = 39.7191 BEF
- 1 EUR = 1.92573 DEM

<table>
<thead>
<tr>
<th>Voucher</th>
<th>Calculation</th>
<th>Calculated Exchange Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>PV 1</td>
<td>((2000.00 / 6.45863) * 1.92573) = 596.33 / 2000.00</td>
<td>0.298165</td>
</tr>
<tr>
<td>PV 2</td>
<td>((10000 / 39.7191) * 1.92573) = 484.84 / 10000</td>
<td>0.048484</td>
</tr>
<tr>
<td>PV 3</td>
<td>((8000.00 / 6.45863) * 1.92573) = 2385.31 / 8000.00</td>
<td>0.298164</td>
</tr>
<tr>
<td>PV 4</td>
<td>((500.00 / 1.0235) * 1.92573) = 940.76 / 500.00</td>
<td>1.88152</td>
</tr>
</tbody>
</table>

The following table shows the gains and losses calculated from the change in exchange rates.

<table>
<thead>
<tr>
<th>Voucher</th>
<th>Domestic Amounts</th>
<th>Foreign Amounts</th>
<th>Exchange Rate 31/12/98</th>
<th>Gain (+) or Loss (-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PV 1</td>
<td>596.33 DEM</td>
<td>2000.00 FRF</td>
<td>0.298165</td>
<td>+ 1.21 DEM</td>
</tr>
<tr>
<td>PV 2</td>
<td>484.84 DEM</td>
<td>10000 BEF</td>
<td>0.048484</td>
<td>- 0.14 DEM</td>
</tr>
<tr>
<td>PV 3</td>
<td>2385.31 DEM</td>
<td>8000.00 FRF</td>
<td>0.298164</td>
<td>+ 4.85 DEM</td>
</tr>
<tr>
<td>PV 4</td>
<td>940.76 DEM</td>
<td>500.00 USD</td>
<td>1.88152</td>
<td>- 58.84 DEM</td>
</tr>
</tbody>
</table>

The Currency Gains and Losses program creates the following journal entries on 31 December 1998. Notice that the journal entry for the USD currency loss is recorded in an unrealized account, while the BEF currency loss is recorded in a realized account.

<table>
<thead>
<tr>
<th>Journal Entry Type</th>
<th>AAI Item</th>
<th>Type of Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>JX 2</td>
<td>PWBEF</td>
<td>Realized Loss</td>
<td>+ 0.14 DEM</td>
</tr>
<tr>
<td>JX 2</td>
<td>PRBEF</td>
<td>Accounts Payable Trade</td>
<td>- 0.14 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>PWUSD</td>
<td>Unrealized Loss</td>
<td>+ 58.84 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>PRUSD</td>
<td>Accounts Payable Other</td>
<td>- 58.84 DEM</td>
</tr>
</tbody>
</table>

Journal entries are not created for gains because the processing option was set to create losses only.
1 January 1999

On 1 January 1999, reversing journal entries are created for both realized and unrealized losses.

<table>
<thead>
<tr>
<th>Journal Entry Type</th>
<th>AAI Item</th>
<th>Type of Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>JX 2</td>
<td>PWBEF</td>
<td>Realized Loss</td>
<td>– 0.14 DEM</td>
</tr>
<tr>
<td>JX 2</td>
<td>PRBEF</td>
<td>Accounts Payable Trade</td>
<td>+ 0.14 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>PWUSD</td>
<td>Unrealized Loss</td>
<td>– 58.84 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>PRUSD</td>
<td>Accounts Payable Other</td>
<td>+ 58.84 DEM</td>
</tr>
</tbody>
</table>

During January, all four vouchers are paid. The realized gains and losses are calculated during payment processing. These calculations occur independently of the Currency Gains and Losses program.

<table>
<thead>
<tr>
<th>Journal Entry Type</th>
<th>Type of Account</th>
<th>Domestic Amounts</th>
<th>Foreign Amounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>PK 1</td>
<td>Cash in Bank</td>
<td>– 596.33 DEM</td>
<td>~ 2000.00 FRF</td>
</tr>
<tr>
<td>PG 1</td>
<td>Realized Gain</td>
<td>– 1.21 DEM</td>
<td></td>
</tr>
<tr>
<td>AE 1</td>
<td>Accounts Payable Trade</td>
<td>597.54 DEM</td>
<td>2000.00 FRF</td>
</tr>
<tr>
<td>PK 2</td>
<td>Cash in Bank</td>
<td>– 484.84 DEM</td>
<td>– 10000 BEF</td>
</tr>
<tr>
<td>PG 2</td>
<td>Realized Loss</td>
<td>0.14 DEM</td>
<td></td>
</tr>
<tr>
<td>AE 2</td>
<td>Accounts Payable Trade</td>
<td>484.70 DEM</td>
<td>10000 BEF</td>
</tr>
<tr>
<td>PK 3</td>
<td>Cash in Bank</td>
<td>–2385.31 DEM</td>
<td>~ 8000.00 FRF</td>
</tr>
<tr>
<td>PG 3</td>
<td>Realized Gain</td>
<td>– 4.85 DEM</td>
<td></td>
</tr>
<tr>
<td>AE 3</td>
<td>Accounts Payable Trade</td>
<td>2390.16 DEM</td>
<td>8000.00 FRF</td>
</tr>
<tr>
<td>PK 4</td>
<td>Cash in Bank</td>
<td>–940.76 DEM</td>
<td>– 500.00 USD</td>
</tr>
<tr>
<td>PG 4</td>
<td>Realized Loss</td>
<td>58.84 DEM</td>
<td></td>
</tr>
<tr>
<td>AE 4</td>
<td>Accounts Payable Trade</td>
<td>881.92 DEM</td>
<td>500.00 USD</td>
</tr>
</tbody>
</table>
The following T-accounts show that since realized losses were calculated in December, there is a net amount of zero for realized losses in January.

<table>
<thead>
<tr>
<th>Realized Loss Account</th>
<th>Realized Loss Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>December</td>
<td>January</td>
</tr>
<tr>
<td>0.14</td>
<td>0.14</td>
</tr>
<tr>
<td>0.14</td>
<td></td>
</tr>
</tbody>
</table>

The processing option for the Currency Gains and Losses program was not set to realize gains on 31 December 1998. Therefore, gains on the FRF vouchers that were paid in January were realized in January.

Since the vouchers were paid before 31 January 1999, the realization process that ran at the end of January did not select them. The following T-accounts show the entries that were recorded for those transactions.

<table>
<thead>
<tr>
<th>Realized Gain Account</th>
<th>Realized Gain Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>December</td>
<td>January</td>
</tr>
<tr>
<td></td>
<td>1.21</td>
</tr>
<tr>
<td></td>
<td>4.85</td>
</tr>
</tbody>
</table>

**Example: Euro Gain and Loss Realization for A/P**

This example shows realized gains and losses on open vouchers that exist for more than a one-month period. In this example, the Currency Gains and Losses program is set to create journal entries for both gains and losses.
15 December 1998

Company 1 uses DEM as its base currency and has four open vouchers as of 15 December 1998.

<table>
<thead>
<tr>
<th>Voucher</th>
<th>Domestic Amounts</th>
<th>Foreign Amounts</th>
<th>Exchange Rate 15/12/98</th>
</tr>
</thead>
<tbody>
<tr>
<td>PV 1</td>
<td>597.54 DEM</td>
<td>2000.00 FRF</td>
<td>0.29877</td>
</tr>
<tr>
<td>PV 2</td>
<td>484.70 DEM</td>
<td>10000 BEF</td>
<td>0.04847</td>
</tr>
<tr>
<td>PV 3</td>
<td>2390.16 DEM</td>
<td>8000.00 FRF</td>
<td>0.29877</td>
</tr>
<tr>
<td>PV 4</td>
<td>881.92 DEM</td>
<td>500.00 USD</td>
<td>1.76383</td>
</tr>
</tbody>
</table>

31 December 1998

On 31 December 1998, the exchange rates are irrevocably fixed for EMU member currencies. As a result, the exchange rates are calculated using triangulation and the no inverse rule, based on the following (unofficial) rates:

- 1 EUR = 6.45863 FRF
- 1 EUR = 1.0235 USD
- 1 EUR = 39.7191 BEF
- 1 EUR = 1.92573 DEM

<table>
<thead>
<tr>
<th>Voucher</th>
<th>Calculation</th>
<th>Calculated Exchange Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>PV 1</td>
<td>((2000.00 / 6.45863) * 1.92573) = 596.33 / 2000.00</td>
<td>0.298165</td>
</tr>
<tr>
<td>PV 2</td>
<td>((10000 / 39.7191) * 1.92573) = 484.84 / 10000</td>
<td>0.048484</td>
</tr>
<tr>
<td>PV 3</td>
<td>((8000.00 / 6.45863) * 1.92573) = 2385.31 / 8000.00</td>
<td>0.298164</td>
</tr>
<tr>
<td>PV 4</td>
<td>((500.00 / 1.0235) * 1.92573) = 940.76 / 500.00</td>
<td>1.88152</td>
</tr>
</tbody>
</table>

The following table shows the gains and losses calculated from the change in exchange rates.

<table>
<thead>
<tr>
<th>Voucher</th>
<th>Domestic Amounts</th>
<th>Foreign Amounts</th>
<th>Exchange Rate 31/12/98</th>
<th>Gain (+) or Loss (−)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PV 1</td>
<td>596.33 DEM</td>
<td>2000.00 FRF</td>
<td>0.298165</td>
<td>+ 1.21 DEM</td>
</tr>
<tr>
<td>PV 2</td>
<td>484.84 DEM</td>
<td>10000 BEF</td>
<td>0.048484</td>
<td>− 0.14 DEM</td>
</tr>
<tr>
<td>PV 3</td>
<td>2385.31 DEM</td>
<td>8000.00 FRF</td>
<td>0.298164</td>
<td>+ 4.85 DEM</td>
</tr>
<tr>
<td>PV 4</td>
<td>940.76 DEM</td>
<td>500.00 USD</td>
<td>1.88152</td>
<td>− 58.84 DEM</td>
</tr>
</tbody>
</table>
The Currency Gains and Losses program creates the following journal entries on 31 December 1998.

<table>
<thead>
<tr>
<th>Journal Entry Type</th>
<th>AAI Item</th>
<th>Type of Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>JX 1</td>
<td>PWFRF</td>
<td>Realized Gain</td>
<td>– 1.21 DEM</td>
</tr>
<tr>
<td>JX 1</td>
<td>PRFRF</td>
<td>Accounts Payable Trade</td>
<td>1.21 DEM</td>
</tr>
<tr>
<td>JX 2</td>
<td>PVBEF</td>
<td>Realized Loss</td>
<td>0.14 DEM</td>
</tr>
<tr>
<td>JX 2</td>
<td>PRFRF</td>
<td>Accounts Payable Trade</td>
<td>– 0.14 DEM</td>
</tr>
<tr>
<td>JX 3</td>
<td>PVFRF</td>
<td>Realized Gain</td>
<td>– 4.85 DEM</td>
</tr>
<tr>
<td>JX 3</td>
<td>PRBEF</td>
<td>Accounts Payable Trade</td>
<td>4.85 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>PWUSD</td>
<td>Unrealized Loss</td>
<td>58.84 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>PRUSD</td>
<td>Accounts Payable Other</td>
<td>– 58.84 DEM</td>
</tr>
</tbody>
</table>

The journal entries for the FRF and BEF vouchers are recorded in realized accounts. The journal entry for the USD voucher is recorded in an unrealized account during standard period-end processing.
1 January 1999

On 1 January 1999, reversing journal entries are created for both realized gains and losses.

<table>
<thead>
<tr>
<th>Journal Entry Type</th>
<th>AAI Item</th>
<th>Type of Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>JX 1</td>
<td>PWFRF</td>
<td>Realized Gain</td>
<td>1.21 DEM</td>
</tr>
<tr>
<td>JX 1</td>
<td>PRFRF</td>
<td>Accounts Payable Trade</td>
<td>- 1.21 DEM</td>
</tr>
<tr>
<td>JX 2</td>
<td>PVBEF</td>
<td>Realized Loss</td>
<td>- 0.14 DEM</td>
</tr>
<tr>
<td>JX 2</td>
<td>PRFRF</td>
<td>Accounts Payable Trade</td>
<td>0.14 DEM</td>
</tr>
<tr>
<td>JX 3</td>
<td>PVFRF</td>
<td>Realized Gain</td>
<td>4.85 DEM</td>
</tr>
<tr>
<td>JX 3</td>
<td>PRBEF</td>
<td>Accounts Payable Trade</td>
<td>- 4.85 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>PWUSD</td>
<td>Unrealized Loss</td>
<td>- 58.84 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>PRUSD</td>
<td>Accounts Payable Other</td>
<td>58.84 DEM</td>
</tr>
</tbody>
</table>

During January, voucher PV 1 is paid and the loss is realized during payment processing. The payment calculations occur independently of the Currency Gains and Losses program.

<table>
<thead>
<tr>
<th>Journal Entry Type</th>
<th>Type of Account</th>
<th>Domestic Amounts</th>
<th>Foreign Amounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE 1</td>
<td>Accounts Payable Trade</td>
<td>597.54 DEM</td>
<td>2000.00 BEF</td>
</tr>
<tr>
<td>PG 1</td>
<td>Realized Gain</td>
<td>- 1.21 DEM</td>
<td></td>
</tr>
<tr>
<td>PK 1</td>
<td>Cash in Bank</td>
<td>- 596.33 DEM</td>
<td>- 2000.00 BEF</td>
</tr>
</tbody>
</table>
31 January 1999

On 31 January 1999, vouchers PV 2 (BEF), PV 3 (FRF), and PV 4 (USD) remain open. The Currency Gains and Losses program will again create realized journal entries for the FRF and BEF vouchers and the program will create unrealized journal entries for the USD voucher. Realized journal entries were created for the paid voucher (PV1) during payment processing and are bypassed by the program.

<table>
<thead>
<tr>
<th>Journal Entry Type</th>
<th>AAI Item</th>
<th>Type of Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>JX 2</td>
<td>PVBEF</td>
<td>Realized Loss</td>
<td>0.14 DEM</td>
</tr>
<tr>
<td>JX 2</td>
<td>PRBEF</td>
<td>Accounts Payable Trade</td>
<td>− 0.14 DEM</td>
</tr>
<tr>
<td>JX 3</td>
<td>PVFRF</td>
<td>Realized Gain</td>
<td>− 4.85 DEM</td>
</tr>
<tr>
<td>JX 3</td>
<td>PRFRF</td>
<td>Accounts Payable Trade</td>
<td>4.85 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>PVUSD</td>
<td>Unrealized Loss</td>
<td>58.84 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>PRUSD</td>
<td>Accounts Payable Other</td>
<td>− 58.84 DEM</td>
</tr>
</tbody>
</table>

1 February 1999

On 1 February 1999, reversing journal entries are created for the realized gains.

<table>
<thead>
<tr>
<th>Journal Entry Type</th>
<th>AAI Item</th>
<th>Type of Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>JX 2</td>
<td>PVBEF</td>
<td>Realized Loss</td>
<td>− 0.14 DEM</td>
</tr>
<tr>
<td>JX 2</td>
<td>PRBEF</td>
<td>Accounts Payable Trade</td>
<td>0.14 DEM</td>
</tr>
<tr>
<td>JX 3</td>
<td>PVFRF</td>
<td>Realized Gain</td>
<td>4.85 DEM</td>
</tr>
<tr>
<td>JX 3</td>
<td>PRFRF</td>
<td>Accounts Payable Trade</td>
<td>− 4.85 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>PVUSD</td>
<td>Unrealized Loss</td>
<td>− 58.84 DEM</td>
</tr>
<tr>
<td>JX 4</td>
<td>PRUSD</td>
<td>Accounts Payable Other</td>
<td>58.84 DEM</td>
</tr>
</tbody>
</table>
The remaining three vouchers are paid in February and the gains and losses are realized during payment processing.

<table>
<thead>
<tr>
<th>Journal Entry Type</th>
<th>Type of Account</th>
<th>Domestic Amounts</th>
<th>Foreign Amounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE 2</td>
<td>Accounts Payable Trade</td>
<td>484.70 DEM</td>
<td>10000 BEF</td>
</tr>
<tr>
<td>PG 2</td>
<td>Realized Loss</td>
<td>0.14 DEM</td>
<td></td>
</tr>
<tr>
<td>PK 2</td>
<td>Cash in Bank</td>
<td>−484.84 DEM</td>
<td>−10000 BEF</td>
</tr>
<tr>
<td>AE 3</td>
<td>Accounts Payable Trade</td>
<td>2390.16 DEM</td>
<td>8000.00 FRF</td>
</tr>
<tr>
<td>PG 3</td>
<td>Realized Gain</td>
<td>−4.85 DEM</td>
<td></td>
</tr>
<tr>
<td>PK 3</td>
<td>Cash in Bank</td>
<td>−2385.31 DEM</td>
<td>−8000.00 FRF</td>
</tr>
<tr>
<td>AE 4</td>
<td>Accounts Payable Trade</td>
<td>881.92 DEM</td>
<td>500.00 USD</td>
</tr>
<tr>
<td>PG 4</td>
<td>Realized Loss</td>
<td>58.84 DEM</td>
<td></td>
</tr>
<tr>
<td>PK 4</td>
<td>Cash in Bank</td>
<td>−940.76 DEM</td>
<td>−500.00 USD</td>
</tr>
</tbody>
</table>

The following T-accounts show the journal entries for the realized accounts in December.

<table>
<thead>
<tr>
<th>Realized Loss Account December</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Realized Gain Account December</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.21</td>
</tr>
<tr>
<td>4.85</td>
</tr>
</tbody>
</table>
The following T-accounts show the journal entries for the realized accounts in January.

<table>
<thead>
<tr>
<th>Realized Loss Account</th>
<th>Realized Gain Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>January</td>
</tr>
<tr>
<td>0.14</td>
<td>0.14</td>
</tr>
<tr>
<td>*0.14</td>
<td>*1.21</td>
</tr>
<tr>
<td>4.85</td>
<td>4.85</td>
</tr>
</tbody>
</table>

* This entry was created when the voucher was paid; it was not created by the Currency Gains and Losses program.

The following T-accounts show the journal entries for realized accounts in February.

<table>
<thead>
<tr>
<th>Realized Loss Account</th>
<th>Realized Gain Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>February</td>
<td>February</td>
</tr>
<tr>
<td>0.14</td>
<td>4.85</td>
</tr>
<tr>
<td>*0.14</td>
<td>*4.85</td>
</tr>
</tbody>
</table>

* These entries were created when the voucher was paid; they were not created by the Currency Gains and Losses program.

Since the original journal entries for realized gains and losses were created in December, the overall impact is zero for January and February.
Converting Supplier Amounts to the Euro

You convert your supplier’s default currency and statistical amounts to the euro for the following reasons:

- Your supplier wants to receive payments in the euro
- You want to submit payments to your suppliers in the euro
- You want to see a supplier’s statistical amounts in the euro

This topic describes the following:

☐ When to convert supplier address book amounts
☐ Converting supplier address book amounts
☐ Changing supplier default currencies
☐ How limit amounts are calculated
☐ Application outside of the EMU

When to Convert Supplier Address Book Amounts

Throughout your company’s transition to the euro, you will convert supplier amounts and default currencies to the euro. You can convert these amounts and currencies on a supplier-by-supplier basis, or you can convert multiple suppliers at one time. Additionally, you can convert a supplier’s statistical amounts and default currency at the same time, or independently of one another. To convert the statistical amounts, you must have already set up Economic and Monetary Union (EMU) member currency relationships and exchange rates.

After your company converts its base currency to the euro, you may submit payments in either the euro or the national currency of EMU suppliers, as long as it is within the euro transition period. For example, if a French supplier has not yet converted to the euro, you can pay them in the French franc even if your company has converted to the euro.
If you have a parent/child structure with different default and address book currencies, you can convert the parent independently from its children and vice versa.

The following example shows a parent/child relationship with different currencies.

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Address Book Currency</th>
<th>Default Currency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent</td>
<td>ITL</td>
<td>ITL</td>
</tr>
<tr>
<td>Child 1</td>
<td>ITL</td>
<td>FRF</td>
</tr>
<tr>
<td>Child 2</td>
<td>ITL</td>
<td>FRF</td>
</tr>
<tr>
<td>Child 3</td>
<td>ITL</td>
<td>DEM</td>
</tr>
</tbody>
</table>

In this example, Child 1, Child 2, and Child 3 have requested that you submit payments in the euro. You run the Supplier Master Conversion program to convert their default currencies from FRF and DEM to EUR. (Alternatively, you can convert the currencies of a parent and its children at the same time, if applicable.)

The following example shows the results after the conversion.

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Address Book Currency</th>
<th>Default Currency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent</td>
<td>ITL</td>
<td>ITL</td>
</tr>
<tr>
<td>Child 1</td>
<td>ITL</td>
<td>EUR</td>
</tr>
<tr>
<td>Child 2</td>
<td>ITL</td>
<td>EUR</td>
</tr>
<tr>
<td>Child 3</td>
<td>ITL</td>
<td>EUR</td>
</tr>
</tbody>
</table>

This example shows that you can continue to track statistical amounts (address book currency) in the parent company’s currency while submitting payments to some of the subsidiaries in the euro. It is also possible to convert the statistical amounts to the euro at the subsidiary level.

**Converting Supplier Address Book Amounts**

From the Multi-Currency Conversion Operations menu (G1132), choose Supplier Master Conversion.

You can set up different DREAMWriter versions of the conversion program. For example, you might set up one version to convert amount currency codes only, another version to convert default currency codes only, and still another to convert both.
When you convert supplier amounts, you convert amounts in the Supplier Master table (F0401) only. You do not convert transactions in the Accounts Payable Ledger table (F0411). This is because, for consistency and integrity reasons, you cannot convert existing transaction amounts to the euro until you convert your base currency to the euro.

When you convert supplier amounts, you convert either or both of the following:

- Supplier default currency (Currency field)
- Supplier address book amounts and address book currency (Amount Currency field)

---

**Supplier Address Book Amounts and Address Book Currency**

You convert address book amounts and address book currency codes for your suppliers by running the Supplier Master Conversion program. This program converts summary statistical amounts, limit amounts, and the currency code for suppliers.

When you convert address book amounts for suppliers, you convert the following types of amounts:

- **Summary statistical amounts**
  - Year-to-date voucher amounts
  - Prior year voucher amounts
  - Open order amounts
### Limit amounts
- Minimum and maximum order values

To view the supplier statistical amounts that you convert to the euro, access the Supplier Information window. Press F1 on the Supplier Number field on the Supplier Master Information form. On Name Search, enter the supplier name and a V in the Search Type field and press Enter. Enter 4 in the Option field next to the supplier and press Enter to access the Supplier Information window. Scroll down to view more statistical amounts.

### Example: Before and After Converting Supplier Amounts

The values for this example are set as follows:

<table>
<thead>
<tr>
<th>Program</th>
<th>Field or Processing Option Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplier Master Information</td>
<td>Amount Currency field = DEM&lt;br&gt;Currency Code field = DEM</td>
</tr>
<tr>
<td>Set Daily Transaction Rates</td>
<td>(DEM to EUR currency relationship)&lt;br&gt;Exchange Rate field = 1.98166 (divisor)</td>
</tr>
<tr>
<td>Supplier Master Conversion</td>
<td>Amount Currency processing option = EUR&lt;br&gt;Currency Code processing option = blank&lt;br&gt;Round Limit Amounts processing option = 50</td>
</tr>
</tbody>
</table>

This example shows supplier amounts before and after converting from the deutsche mark (DEM) to the euro (EUR).
After converting to the euro, this supplier's statistical amounts will be in the euro, however, their payments will remain in deutsche marks.

<table>
<thead>
<tr>
<th>F0401 Field</th>
<th>Description</th>
<th>Before Conversion</th>
<th>After Conversion</th>
<th>Rounded From</th>
</tr>
</thead>
<tbody>
<tr>
<td>A6CRRP</td>
<td>Currency Code - A/P</td>
<td>DEM</td>
<td>DEM</td>
<td>Not applicable</td>
</tr>
<tr>
<td>A6CRCA</td>
<td>Currency Code - A/B</td>
<td>DEM</td>
<td>EUR</td>
<td>Not applicable</td>
</tr>
<tr>
<td>A6AYPD</td>
<td>Amount Vouchered</td>
<td>157500.00</td>
<td>79478.82</td>
<td>Not applicable</td>
</tr>
<tr>
<td></td>
<td>Year-to-Date</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A6APPD</td>
<td>Amount Vouchered Prior Year End</td>
<td>138000.00</td>
<td>69638.59</td>
<td>Not applicable</td>
</tr>
<tr>
<td>A6ABAM</td>
<td>Address Book Amount</td>
<td>Not used</td>
<td>Not used</td>
<td>Not applicable</td>
</tr>
<tr>
<td>A6ABA1</td>
<td>Address Book Amount</td>
<td>Not used</td>
<td>Not used</td>
<td>Not applicable</td>
</tr>
<tr>
<td>A6APRC</td>
<td>Open Order Amount</td>
<td>3000.00</td>
<td>1513.88</td>
<td>Not applicable</td>
</tr>
<tr>
<td>A6MINO</td>
<td>Minimum Order Value</td>
<td>15000.00</td>
<td>7550</td>
<td>7569.41</td>
</tr>
<tr>
<td>A6MAXO</td>
<td>Maximum Order Value</td>
<td>30000.00</td>
<td>15150</td>
<td>15138.82</td>
</tr>
</tbody>
</table>

In the Supplier Master table, the field A6ABAM stores a user-defined fixed amount and the field A6ABA1 is for future use. If you use either of these fields, be aware that the Supplier Master Conversion program converts the amounts, regardless of whether they are monetary amounts.

**Changing a Supplier’s Default Currency**

From the Multi-Currency Conversion Operations menu (G1132), choose Supplier Master Conversion.

You can set up different DREAMWriter versions. For example, you might set up one version to convert default currency codes only, another version to convert amount currency codes only, and still another to convert both.

To comply with a supplier’s request to receive payments in the euro, you must change the default currency code on that supplier’s master record. You can change the code for multiple suppliers at one time by running the Supplier Master Conversion program. Or, you can change a supplier’s currency code manually on the Supplier Master Information form. You might do this if you have just one or two suppliers to convert on a particular day.
Processing Options for Supplier Master Conversion

Depending on how you set your processing options, the Supplier Master Conversion program does either or both of the following for multiple suppliers:

- Converts supplier statistical amounts and amount currency code
- Changes supplier currency code

These codes are stored in the Amount Currency (CRCA) and Currency Code (CRRP) fields in the Supplier Master table (F0401).

<table>
<thead>
<tr>
<th>Processing Option</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update Control</td>
<td>A value of 1 updates the Supplier Master Information table (F0401). An exceptions report prints with any of the following messages:</td>
</tr>
<tr>
<td></td>
<td><em>No processing errors.</em> If you entered 1 for this processing option, the conversion updates the Supplier Master Information table. If you left it blank, it does not update the table.</td>
</tr>
<tr>
<td></td>
<td><em>Currency exchange rate not found.</em> Cause: The currency code that you are converting to is not set up in the exchange rate table, the exchange rate or effective date is not set up for the currency code.</td>
</tr>
<tr>
<td></td>
<td><em>Invalid currency entered.</em> Cause: The currency code you entered for processing option 3 or 4 or both is not valid.</td>
</tr>
<tr>
<td></td>
<td><em>Update error - record locked or not found.</em> Cause: The supplier master record is in use.</td>
</tr>
<tr>
<td>Date Options</td>
<td>The exchange rate date to use for the conversion.</td>
</tr>
<tr>
<td>Amount Currency</td>
<td>The currency code in which you want to convert the Amount Currency (CRCA) field. This converts a supplier’s statistical amounts and the amount code to the currency you specify.</td>
</tr>
<tr>
<td>Currency Code</td>
<td>The currency code in which you want to update the Currency Code (CRRP) field. This changes a supplier’s currency code to the currency you specify.</td>
</tr>
<tr>
<td>Limit Amounts</td>
<td>Value with which to round the converted amount, such as 10, 25, 50, 100, 1000, and so on.</td>
</tr>
</tbody>
</table>
Data Selection

Data selection provides flexibility when converting supplier amounts to the euro. To convert address book amounts by supplier, specify the address book numbers. If you do not do this, the conversion program converts all suppliers. To convert amounts for all suppliers assigned a certain category code, specify the category code.

How Limit Amounts Are Calculated

Limit amounts are minimum and maximum order values that you assign to a supplier. Limit amounts are usually rounded numbers stored without decimals. You designate the rounding amount to use when converting limit amounts in a process option.

For example, 1 euro = 1.98166 DEM. The conversion program converts a maximum order amount of 10,000 deutsche marks to 5046.27 euro. You designate a rounding amount to the nearest 50. The conversion program rounds 5046 euros to 5050 euros.

Calculation

\[
\text{Converted Amount} \div \text{Divisor} = Q \text{ with a remainder of } R.
\]

(The Divisor equals the rounding amount you designate in the processing options.)

Rounding Up or Down

Amounts are rounded up or down, as follows:

- Round up. If \( R \) is greater than or equal to one half of the divisor, then subtract \( R \) from the divisor and add that amount to the converted amount.

Calculation: 5046 EUR / 50 = 100 with a remainder of 46.

If 46 is greater than one half of 50 (25), then add 4 (50 – 46) to 5046 to get a rounded value of 5050 EUR. (This calculation is based on a rounding amount of 50.)
• Round down. If R is less than one half of the divisor, then subtract R from the converted amount.

  Calculation: 5010 EUR / 50 = 100 with a remainder of 10.

  If 10 is less than one half of 50 (25), then subtract 10 from the converted amount to get a rounded value of 5000 EUR. (This calculation is based on a rounding amount of 50.)

**Application Outside of the EMU**

Countries outside of the EMU can use the Supplier Master Conversion program to change a supplier to any currency, for example, to change from U.S. dollars to Canadian dollars. A supplier’s statistical and limit amounts can also be converted using one exchange rate, based on the date in the processing option.
Creating New Cost Records in the Euro

Your suppliers might begin providing prices in the euro as early as 1 January 1999. You can create euro cost records for those suppliers, regardless of whether your internal accounting systems have changed over to the euro. You might want to create cost records in the euro for some suppliers and retain cost records in a national currency for others. You control the currency on the supplier master record.

Some companies will create new cost records in the euro immediately, others will wait until 2002 when it is mandatory, and still others will use a transitional approach and create new cost records for a few suppliers or items at a time.

This topic describes the following:

- What to do before you create new cost records
- The generation program that creates new cost records
- Creating new cost records in the euro
- Application outside of the EMU

What to Do Before You Create New Cost Records

Before you create new cost records, you should review your current cost structure and plan a strategy for your new cost records.

To plan a strategy for your new cost records, it is important that you understand how the cost generation program creates new cost records. When you run the program, it creates only one euro cost record for each unit of measure. The cost generation program does not create one euro cost record for each currency.

If a euro cost record exists for a supplier, item, or branch/plant, the cost generation program does not create another euro record for it. The exception to this rule is when currency codes associated with a supplier, item, or branch/plant have different effective through dates. Depending on the dates, the cost generation program might create more than one euro cost record.
If you have a complex pricing structure, you might choose to create new euro cost records manually. Or, you might create some new euro records manually and others automatically, using the generation program.

**Example: A Cost Structure Strategy**

This example describes the current cost structure for a group of suppliers and suggests a strategy for revising the structure before creating new euro cost records.

Your current cost structure for a group of suppliers is based on different currency codes. When you create a new euro cost record for that supplier group, the new record will be based on only one currency code. For this reason you will want to review and revise your current structure to adjust for any cost differences before you create new euro costs.

The following table illustrates this.

<table>
<thead>
<tr>
<th>Item</th>
<th>Currency Code</th>
<th>Current Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1</td>
<td>DEM</td>
<td>8 DEM</td>
</tr>
<tr>
<td>Item 1</td>
<td>FRF</td>
<td>50 FRF</td>
</tr>
<tr>
<td>Item 1</td>
<td>ITL</td>
<td>100000</td>
</tr>
</tbody>
</table>

In this example, the process options are set to create a new EUR cost record based on the existing FRF record, with an (unofficial) exchange rate of 1 EUR = 6.45863. The cost generation program creates a new cost record for 7.74 EUR. It does not create cost records for the German and Italian amounts. This means that the German, Italian, and French suppliers all have the same euro cost for item 1, which is probably not the desired result. This example helps illustrate why you should review your cost structure before you create new euro cost records.

Instead of using currency codes to differentiate between your supplier costs, consider revising your current cost structure. One strategy is to use branch/plants to differentiate between supplier costs. This strategy would allow you to define different euro costs for different locations.

**The Generation Program that Creates New Cost Records**

To create new cost records in the euro, you run the Generate Purchase Price by Currency program. This program does the following:

- Copies the original currency cost record
- Calculates a new cost in the euro based on the exchange rate you specify
- Creates a new cost record with the euro amount
Creating New Cost Records in the Euro

When you run the generation program, it creates only one euro cost record for each unit of measure. It does not create one euro cost record for each currency. If a euro cost record already exists, the generation program does not create another euro record because both records would have the same key. The exception to this rule is when currency codes associated with an item have different effective through dates. In this case, the generation program might create more than one euro cost record.

When the cost generation program creates a new euro cost record, it sequences that record alphabetically along with the existing records.

To create new cost records, you specify the following:

- Date as of when you want to create new records
- Currency in which you want to create new records
- Currency of the existing cost records
- Exchange rate to use to calculate the new cost
- Conversion method (divisor or multiplier) to use to perform the exchange rate calculation

You must use the divisor method when calculating an exchange rate from an EMU national currency to the euro. In this way, new cost records are based on the no inverse calculation method required by the EU.

The generation program for cost records automatically rounds converted euro amounts according to the decimal places that are set up in the data dictionary.

Creating New Cost Records in the Euro

From the Purchasing Advanced and Technical Operations menu (G43A31), choose Generate Purchase Price/Currency.

Alternatively, you can create a new cost record in the euro by manually entering it on the Supplier/Item Price Revisions form, located on the Price Management menu (G43A17). You do not have to run the generation program.

Typically, companies that have already converted their base currency to the euro will run this program to create new cost records for all suppliers within a specific branch/plant. Otherwise, they may run it for a specific supplier or item.
Example: Before and After Creating New Cost Records

The following form shows an existing cost record before a euro cost record is created. Notice that this record has several currency codes and costs.

![Image](Image)

The processing options for the generation program in this example are set as follows:

- **Mode** = Proof
- **Effective date** = 01/01/99
- **Convert to currency** = EUR
- **Convert from/exchange rate** = DEM 1.9816600
- **Method** = divisor

Even though there are several currency amounts associated with the item number, the generation program will create only one new euro amount, based on the DEM record. This example illustrates the importance of reviewing and, if necessary, revising your current cost structure before you create new cost records in the euro.
The generation program ran in proof mode and produced the following report.

<table>
<thead>
<tr>
<th>Supplier</th>
<th>Item #</th>
<th>Cost Ctrl</th>
<th>Catalog</th>
<th>UM</th>
<th>Quantity</th>
<th>Exp Date</th>
<th>Cur</th>
<th>Converted Price</th>
<th>Purchase Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>7157</td>
<td>530571</td>
<td>320</td>
<td>EA</td>
<td></td>
<td>01/05/05</td>
<td>DEM</td>
<td>625.0000</td>
<td>315.3921</td>
<td></td>
</tr>
</tbody>
</table>

The generation program then ran in final mode, which produced the following results on the cost record.

Notice that the original cost records remain. The generation program created only one euro record for the deutsche mark. Once a euro record is created, the program will not create any additional euro cost records for this item, unless a different currency has a different effective thru date.

When it creates new cost records, the generation program automatically rounds converted euro amounts according to the decimal places that are set up in the data dictionary.

The effective date for the new euro amount is not the effective date in the processing options. The effective date in the processing options selects the records in which to create new euro records.
Processing Options for Price Generation Program

You must set the following processing options:

<table>
<thead>
<tr>
<th>Processing Option</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update Options</td>
<td>Proof mode generates an audit report that shows all selected purchase prices to be converted.</td>
</tr>
<tr>
<td></td>
<td>Final mode creates the records and generates an audit report that shows the new purchase prices generated.</td>
</tr>
<tr>
<td>Price Additions</td>
<td>This date determines which supplier/catalog purchase price records will be generated. If the expiration date of a price is greater than or equal to this date, a new price record will be generated.</td>
</tr>
<tr>
<td>Conversion Options</td>
<td>The currency code in which you want to create new price records.</td>
</tr>
<tr>
<td></td>
<td>The currency code of the current price record and the exchange rate.</td>
</tr>
<tr>
<td></td>
<td>Multiply or divide the current price by the exchange rate entered in the previous processing option. When converting from an EMU member currency to the euro, you must set this to divide so that you do not violate the no inverse rule.</td>
</tr>
</tbody>
</table>

Data Selection

If your company has multiple branch plants with different currencies, you can run the generation program multiple times. By creating new cost records one currency at a time, you help ensure that the cost records you create are the ones you intended to create.

If your company has items that are at purchase price level 1 and you want to ensure that those items are selected for the price generation, designate #blanks for branch plant in the data selection if you are not using #all for all branch plants.

Application Outside of the EMU

The generation program is designed to create new cost price records for any alternate currency using one exchange rate.
Purchase Orders, Vouchers, and the Euro

During the euro transition period, some purchase orders and vouchers might need to be handled differently than usual. For example, you enter a purchase order but do not create a voucher for it before 1 January 1999. Or you enter a purchase order in a domestic currency, but your supplier submits an invoice in the euro.

This topic describes the following:

- How purchase orders entered before 1999 are handled
- When purchase orders and invoices are different currencies

How Purchase Orders Entered Before 1999 are Handled

If you enter a purchase order and do not create a voucher for it before 1 January 1999, the Purchase Order Management system creates a journal entry in a temporary liability clearing account (Received but not Vouchered) when you receive your purchase order. To create the journal entry, it uses an exchange rate based on one of the following dates in a processing option:

- Purchase order exchange rate
- G/L Date
- Current Date

When you create the actual voucher, the system reverses the entry from the temporary liability clearing account at the exchange rate in which it was created. The voucher you create uses an exchange rate based on the date you designate in the processing option. Any minor exchange rate differences that occur between receiving the purchase order and creating the voucher is reflected as an adjusting entry with the voucher.
When Purchase Orders and Invoices are Different Currencies

If you enter a purchase order in a domestic or foreign currency and your supplier submits an invoice in the euro, you cannot automatically match the domestic or foreign purchase order to the euro voucher. Instead, you must manually convert the euro invoice amount to the domestic or foreign currency and then enter the voucher with that (domestic or foreign currency) amount.

For example, if you enter a purchase order in deutsche marks (DEM) and your supplier submits an invoice in the euro, you must manually convert the euro invoice amount to DEM and then enter the voucher in DEM.

For future transactions, you should consider changing the currency code on the supplier master record so that any future purchase orders, vouchers, and payments are processed in the euro.
Creating New Recurring Vouchers in the Euro

€

If you have recurring vouchers with exchange rates that are no longer effective because of the euro, you must cancel them and create new ones with the new exchange rates.

Follow these steps to create a new recurring voucher:

1. From the Other Voucher Entry Methods menu (G04111), choose Recurring Voucher Report.

   Run this report by currency to determine which recurring vouchers should be cancelled and recreated. An error message on the report identifies the base recurring vouchers that should be recreated.

2. From the Other Voucher Entry Methods menu (G04111), choose Standard Voucher Entry.

   Cancel the recurring voucher by removing the values in the Recurring Frequency and Number of Payments fields in the detail area (F4).

3. On Standard Voucher Entry, create a new recurring voucher with the new currency (EUR), recurring frequency, and remaining number of payments.
Alternate Currency Payment Setup

With the introduction of the euro, the automatic payment programs now process payments in an alternate currency. This means that you can now pay vouchers in a currency other than the domestic or foreign currency.

This topic describes the following:

- Setup requirements for alternate currency payments
- Purpose of an alternate currency clearing account
- How gains and losses are calculated on alternate currency payments

Setup Requirements for Alternate Currency Payments

To pay vouchers in an alternate currency, you must set up the following:

- Alternate currency clearing account and automatic accounting instruction (AAI)
- Alternate currency payment gain accounts and AAI s
- Alternate currency payment loss accounts and AAI s
- Processing options

The gain and loss accounts for alternate payments and standard gain/losses can be different. The differences are handled by using different sets of AAI s.

The gains and losses for alternate currency payments are recorded separately from standard gains and losses.
Alternate Currency Clearing Account and AAI (P7)

To record a payment in an alternate currency, you must set up an alternate currency clearing account to track the conversion of the payment amount. The payment amount is recorded in the alternate currency and must be converted to the currency of the voucher. This clearing account provides an audit trail from the cash account entry in the payment currency to the offset trade account entry in the foreign currency.

The alternate currency clearing account is assigned to AAI item P7 and must follow these rules:

- It must be in the same company as the bank account from which the payment is made.
- It cannot be a monetary account.
- It must be company specific. You cannot use company 00000 as a default.
- It must include a business unit.

Alternate Currency Payment Gain Accounts and AAIs (PY)

To record a gain incurred on an alternate currency payment, you must set up a gain account for an alternate currency payment. This account shows the gains realized when the domestic amount of a payment is less than the amount, which is derived by calculating from the alternate currency to the foreign currency to the domestic currency.

The alternate currency payment gain account is assigned to AAI item PY. The search sequence, which is the same as the sequence for standard gains and losses, is as follows:

1. The program searches for alternate currency code and company.
2. If not found, the program searches for G/L offset and company.
3. If not found, the program searches for company.
4. If not found, the program searches for alternate currency code and company 00000.
5. If not found, the program searches for G/L offset and company 00000.
6. If not found, the program searches for company 00000.

Alternate Currency Payment Loss Accounts and AAIs (PZ)

To record a loss incurred on an alternate currency payment, you must set up a loss account for an alternate currency payment. This account shows the losses realized when the domestic amount of a payment is greater than the amount derived by calculating from the alternate currency to the foreign currency to the domestic currency.
The account for the alternate currency payment loss is assigned to AAI item PZ. AAI item PZ follows the same search sequence described for AAI item PY.

**Processing Options for Alternate Currency Payments**

The new processing options for alternate currency payments are listed by program.

**Create Payment Groups**

**Processing Option** | **Explanation**
--- | ---
Currency Processing | A value of 4 designates that the payment is in an alternate currency. Other values are:
  - Blank - Bank account monetary unit
  - 1 - Voucher domestic currency
  - 2 - Voucher foreign currency
  - 3 - Currency domestic amount

Alternate Currency Payment | The currency code of the payment, such as EUR, if paying in an alternate currency.

**Work with Payment Groups**

**Processing Option** | **Explanation**
--- | ---
Display of Alternate Currency Amounts | A value of 1 displays payment amounts in the alternate currency.

 | Designate an effective date to use for the exchange rate.

**Voucher Functional Server (XT0411Z1) and A/P Speed Release**

**Processing Option** | **Explanation**
--- | ---
Bank Account Edit | Designate to not edit the G/L bank account currency when entering a voucher. The currency of the voucher does not have to be the same as the currency of the monetary bank account if you pay in an alternate currency.
Purpose of an Alternate Currency Clearing Account

Since the original voucher amount recorded against the payables trade account is in the domestic or foreign currency, the offset amount must also be in the same currency. To calculate this offset amount, the payment currency is converted to the domestic or foreign currency and then stored in the clearing account.

The alternate currency clearing account will balance on the domestic side, but not on the foreign side. This is because the foreign side contains different currencies, which will never balance.

The entries for an alternate currency payment are as follows:

<table>
<thead>
<tr>
<th>Alternate Currency Payment Amount</th>
<th>Foreign Payment Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternate Currency Clearing Account</td>
<td>Cash Account</td>
</tr>
<tr>
<td></td>
<td>Gains/Losses</td>
</tr>
<tr>
<td></td>
<td>Trade Account</td>
</tr>
<tr>
<td></td>
<td>Alternate Currency Clearing Account</td>
</tr>
</tbody>
</table>

The alternate currency clearing account shows the audit trail from the cash account entry in the payment currency to the offset entry to the trade account in the foreign currency. In other words, it shows the audit trail of the conversion of the alternate currency into the foreign currency of the original voucher.

How Gains/Losses Are Calculated on Alternate Payments

When a German company submits an invoice to a French company in French francs and the French company pays in euros, there is no exchange rate gain or loss once the exchange rates are fixed to the euro. This is because the Economic and Monetary Union (EMU) member currency rates are fixed to the euro. However, when the same German company pays a supplier in U.S. dollars, or another currency outside of the EMU, the company may record a gain or loss on the payment.

Gains and losses are calculated using the exchange rates that are effective on the date of the payment. Gains and losses are recorded on two different entries.

One entry is calculated based on the fluctuation of the exchange rates between the buyer’s currency and the seller’s currency. This gain or loss is the same gain or loss that would have been realized if the payment did not include an alternate currency.
The other entry is the difference between the following amounts:

1. The amount calculated by converting from the payment currency to the seller's currency and then converting to the buyer's currency.
2. The amount calculated by converting from the alternate currency payment directly to the buyer's currency (this is the amount that is actually paid from the bank account).

A gain is recorded if the amount that is actually paid (2) is less than the amount calculated from converting the payment currency to the seller's currency to the buyer's currency (1).

The second gain or loss is due to the differences found by calculating from one currency to another and then back to that currency. The following example illustrates how these differences can occur:

<table>
<thead>
<tr>
<th>Company</th>
<th>Amount</th>
<th>Exchange Rate</th>
<th>Converted Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgian</td>
<td>200 DEM</td>
<td>1.98166</td>
<td>101 BEF</td>
</tr>
<tr>
<td>German</td>
<td>101 BEF</td>
<td>1.98166</td>
<td>200.15 DEM</td>
</tr>
</tbody>
</table>

In this example, a Belgian company receives an invoice for 200 DEM. Based on an exchange rate of 1.98166, the DEM voucher is converted to 101 BEF.

Conversely, if a German company receives an invoice for 101 BEF, the BEF voucher is converted to 200.15 DEM (based on the exchange rate of 1.98166).
Processing Alternate Currency Payments

According to the “no compulsion, no prohibition” principle, invoices and payments can be handled as follows:

- Suppliers can submit invoices in their national currency or the euro from 1 January 1999 through 31 December 2001.
- Companies can pay vouchers in their national currency or the euro from 1 January 1999 through 30 June 2002.

Based on this principle, companies can choose whether to pay vouchers in the euro or their national currency, as long as it is within the euro transition period.

During the euro transition period, companies can pay vouchers in the euro even if the voucher they receive is in a national currency. For example, if a French company submits an invoice in deutsche marks to a German company, the German company can pay in euros. Alternatively, the company could pay in deutsche marks.

This topic describes the following:

- Processing alternate currency payments
- How alternate currency payment amounts are calculated
- Application outside of the EMU

Before you process alternate currency payments, make sure you complete the setup requirements described in Alternate Currency Payment Setup.

Processing Alternate Currency Payments

Most of the alternate currency payment processing is based on the setup you do before you process payments.
Before you process payments in an alternate currency, you can review the vouchers in both the domestic and the as if currency on Supplier Ledger Inquiry. The alternate currency amount you view on Supplier Ledger Inquiry may not be the exact amount of the payment. This is because amounts are sometimes rounded when converting between EMU member currencies. If you view alternate currency amounts in a currency other than the euro, the amount you view on the Supplier Ledger Inquiry may not be the same amount as the payment, because of fluctuating exchange rates.

The following example shows a voucher that was entered in a company’s base currency, FRF.
In the next example, the same voucher appears in an as if (alternate) currency, EUR. To display amounts in an as if currency, you must set processing options.

Alternate currency payment amounts are stored in the A/P Matching Document table (F0413). The currency in this table will be different from the currency in the A/P Matching Document Detail table (F0414) because an alternate currency payment is involved. The historical exchange rate stored in the A/P Matching Document Detail table contains the exchange rate that is used to calculate from the foreign currency to the alternate currency.

Processing alternate currency payments is similar to processing other payments and is explained in the following:

- Creating payment groups
- Writing payments
- Updating payment groups

In addition to processing alternate currency payments, companies can also process drafts in a multi-currency. This multi-currency functionality, which makes processing drafts in the euro possible, includes the following:

- Manual payment processing. You can enter an A/P draft and match it to a foreign voucher using the Manual Payment with Voucher Match program. The draft is booked to a drafts payable account, instead of a bank account.
- Automatic payment processing. You can create a payment group based on the foreign amount of vouchers. When writing and updating the payment group, the paper draft is created with the foreign amount.
Creating Payment Groups

You can centralize your payment processing by associating a payment group with a specific bank account. By doing this, all supplier invoices in a particular currency can be paid from a bank account that deals in the same currency.

For the following example, a voucher was entered as 2500.00 FRF, the base currency for Company 320. Notice that the voucher appears on the Work with Payment Groups form as 376.93 EUR. To display amounts in an alternate currency, you must set a processing option.

Error Messages

If an error occurs when you create payment groups, a message prints on the Create Payment Groups report. An error message prints, for example, if you try to write a euro payment from a French bank account. The error messages that are specific to alternate currency payments are:

- Alternate currency clearing account is invalid or is a monetary account
- Alternate currency clearing account company is not the same as the transaction company
- AAI for alternate gain/loss account is invalid
- Alternate currency gain/loss account company is not the same currency as transaction company
- The currency of the alternate payment did not match the currency of the bank account
Writing Payments

When you write payments, the exchange rate on the date of payment is recorded as follows:

- The foreign to domestic currency rate is recorded as a standard gain/loss
- The alternate to domestic currency rate is recorded as an alternate gain/loss

Error Messages

If an error occurs when you write payments, a message appears after you enter the payment date. The error message that is specific to alternate currency payments is

*currency exchange rate not found.*

Updating Payment Groups

If no errors occur when you update a payment group, a Payment Register prints.

<table>
<thead>
<tr>
<th>Invoice Number</th>
<th>Date</th>
<th>Name</th>
<th>Payment Stub Message</th>
<th>Ty</th>
<th>Number</th>
<th>Key</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>56724</td>
<td>01/31/99</td>
<td>7190 French Supplier</td>
<td>PV 12819 001 00320</td>
<td></td>
<td></td>
<td></td>
<td>376.93</td>
</tr>
</tbody>
</table>

Total Amount of Payments Written 376.93
Total Number of Payments Written 1

Error Messages

If an error occurs when you update payment groups, a message prints on the Update Payments Error Report. The error messages that are specific to alternate currency payments are:

- *Currency exchange rate not found*
- *Exchange rate cannot be changed between writing and updating payments*

How Alternate Currency Payment Amounts Are Calculated

The amount of the alternate currency payment is calculated as follows:
• Add the total amount of the vouchers in the supplier’s invoice currency.
• Use the exchange rate set up for the supplier’s invoice currency to the payment currency to calculate the payment amount.

For example, you receive several invoices from a supplier on 5 January 1999. The total amount is 200.00 DEM. You are going to pay in euros. The exchange rate is 1 EUR = 1.98166 DEM.

On February 1, you pay the supplier 100.93 EUR. The payment amount is calculated by dividing the voucher currency amount by the exchange rate, as follows:

200 DEM/1.98166

Example: German Company Pays DEM Voucher in EUR

In the following example, the voucher currency is the domestic currency (DEM) and the payment currency is an alternate currency (EUR). The exchange rates are fixed because of the euro.

<table>
<thead>
<tr>
<th>Description</th>
<th>Currency</th>
<th>Amount</th>
<th>Exchange Rate 01/01/99</th>
<th>Exchange Rate 02/01/99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voucher (domestic currency)</td>
<td>DEM</td>
<td>200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payment currency</td>
<td>EUR</td>
<td>100.93</td>
<td></td>
<td>1 EUR = 1.98166 DEM</td>
</tr>
<tr>
<td>Standard gain/loss</td>
<td>DEM</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternate gain/loss</td>
<td>DEM</td>
<td>.01</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The voucher on 1 January 1999 is 200.00 DEM.

The payment on 1 February 1999 is 100.93 EUR, which is calculated as follows:

$$200 \text{ DEM} \div 1.98166 = 100.93 \text{ EUR}$$

The alternate currency gain/loss is calculated as follows:

$$200 \text{ DEM} - (100.93 \times 1.98166 = 200.01 \text{ DEM}) = -0.01 \text{ DEM}$$
Example: German Company Pays FRF Voucher in EUR

In the following example, the voucher currency is the foreign currency (FRF) and the payment currency is an alternate currency (EUR). The exchange rates are fixed because of the EMU and are calculated through triangulation.

<table>
<thead>
<tr>
<th>Description</th>
<th>Currency</th>
<th>Amount</th>
<th>Exchange Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voucher (domestic currency)</td>
<td>DEM</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Voucher (foreign currency)</td>
<td>FRF</td>
<td>669.40</td>
<td>1.000000 EUR = 6.63258 FRF</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.000000 EUR = 1.98166 DEM</td>
</tr>
<tr>
<td>Payment</td>
<td>EUR</td>
<td>100.93</td>
<td></td>
</tr>
<tr>
<td>Standard gain/loss</td>
<td>DEM</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Alternate gain/loss</td>
<td>DEM</td>
<td>.01</td>
<td></td>
</tr>
</tbody>
</table>
The voucher on 1 January is 669.40 FRF, or 200 DEM (669.40 FRF/6.63258 x 1.98166) in the buyer's company currency.

The payment on 1 February 1999 is 100.93 EUR, which is calculated as follows:

\[
\frac{669.40 \text{ FRF}}{6.63258} = 100.93 \text{ EUR}
\]

The exchange rate between FRF to EURO to DEM never changed because the rates were irrevocably fixed on 1 January 1999. Therefore, there is no gain or loss.

The alternate currency gain/loss is calculated and an alternate loss is recorded as follows:

\[
200 \text{ DEM} - (100.93 \times 1.98166 = 200.01) = -0.01
\]

The bank account is credited as follows:

- 100.93 EUR (the amount of the payment) on the foreign side
- 200.01 DEM (the total of the pay items including gains/losses) on the domestic side
Application Outside of the EMU

Example: Canadian Company Pays USD Voucher in JPY

In the following example, the voucher currency is a foreign currency (USD) and the payment currency is an alternate currency (JPY). Because of the exchange rate risk, there is the potential for two gains or losses: one between CAD and USD and the other between CAD, JPY, and USD.

<table>
<thead>
<tr>
<th>Description</th>
<th>Currency</th>
<th>Amount</th>
<th>Exchange Rate 1 January</th>
<th>Exchange Rate 1 February</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voucher (domestic currency)</td>
<td>CAD</td>
<td>200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voucher (foreign currency)</td>
<td>USD</td>
<td>142.57</td>
<td>1 USD = 1.4028 CAD</td>
<td></td>
</tr>
<tr>
<td>Payment</td>
<td>JPY</td>
<td>18,570</td>
<td>1 USD = 1.4357 CAD</td>
<td>1 CAD = 90.72 JPY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 USD = 130.25 JPY</td>
</tr>
<tr>
<td>Standard gain/loss</td>
<td>CAD</td>
<td>4.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternate gain/loss</td>
<td>CAD</td>
<td>0.01</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The voucher on 1 January is 142.57 USD, or 200 CAD in the buyer’s company currency.

The payment on 1 February is 18,570 JPY, which is calculated as follows:

\[ 142.57 \text{ USD} \times 130.25 = 18,570 \text{ JPY}. \]

The gain/loss is calculated as follows:

\[ 200 \text{ CAD} - (142.57 \text{ USD} \times 1.4357) \text{ CAD} = 4.69 \text{ CAD} \]

The alternate currency gain/loss is calculated and an alternate loss is recorded as follows:

\[ 204.69 - (18,570 \text{ JPY} / 90.72 = 204.70 \text{ CAD}) = -0.01 \text{ CAD} \]
The bank account is credited as follows:

18,570 JPY (the amount of the payment) on the foreign side

204.70 CAD (the total of the pay items, including gains/losses) on the domestic side
Viewing Supplier Amounts in the Euro

Before, during, and after converting your base currency to the euro, you can view your supplier amounts in three currencies: domestic, foreign, and the euro (or other “as if” currency). Viewing supplier amounts in an as if currency, such as the euro, allows you to view amounts as if they were stored in a currency other than the currency in which they were actually stored.

For example, you work for a French company that is going to convert to the euro in 2000. Before your company actually converts to the euro, you can view and compare voucher amounts in your domestic currency (French francs) and the euro. Being able to view and compare these amounts should help ease your transition to the euro.

In the following example, voucher amounts display in FRF (French francs), which is the domestic currency of a French Supplier.
In the next example, the currency code is changed to * to display all vouchers, regardless of currency.

In the next example, all vouchers are redisplayed in the euro.

If a currency code appears above the amount column on the left, you are viewing amounts in the as if currency. If a code does not appear, you are viewing amounts in the domestic currency.
The as if currency (EUR) amounts that appear on this form are not written to a table, but are stored in temporary memory. One of the advantages of this enhancement is that it does not impact your disk space.

The following report shows journal entries for the alternate currency clearing account (AAI item P7) after the 3,800.00 DEM voucher was paid in the euro.

This topic describes the following:

- Supplier programs that use the euro display
- Dates that affect the supplier amounts you view
- Viewing vouchers in the euro
- Viewing purchase orders in the euro
- Application outside of the EMU

### Supplier Programs That Use the Euro Display

To view your supplier amounts in the euro, or other as if currency, you use the euro display functionality. This functionality is available in the following programs:

- Supplier Ledger Inquiry (P042003)
- Print Supplier Ledger (P042003P)
- Open Orders (P430301)
Dates that Affect the Supplier Amounts You View

Before you view your supplier amounts in the euro, it is important to understand the different dates that affect the voucher and purchase order amounts you view on the Supplier Ledger Inquiry and Open Orders forms. These dates are:

- The effective date on the Set Daily Transaction Rates form. The inquiry program searches for the most recent effective date for a currency and uses the corresponding exchange rate in the currency calculation.
- The From and Thru Dates on the inquiry form. This date range determines which transactions appear on the form.
- One of the following dates, which is used to retrieve the transaction rate:
  - As of date in the processing options. If the as of date is blank, the program uses the following:
  - Thru Date on the inquiry form. If the processing option and Thru date are blank, the program uses the following:
  - System date.

By understanding these dates and how the inquiry program uses them, you help ensure that you specify the correct date when you view your supplier amounts.

The Thru Date on the form does not override the as of date in the processing options. For this reason, you might want to set up two different versions of this program, one with an as of date in the processing options, the other without an as of date (which allows you to use the Thru Date for the exchange rate).

Viewing Vouchers in the Euro

The exchange rates for EMU member currencies will be fixed to the euro as of 1 January 1999. Vouchers entered before this date are based on prior exchange rates, whereas vouchers entered as of this date will be based on either the fixed euro rate or another exchange rate.

From the Supplier and Voucher Entry menu (G0411), choose Supplier Ledger Inquiry.
To toggle between the domestic currency and the euro (or other as if currency), press F19. To print the euro amounts on a report, press F21 while viewing the euro amounts.

Remember that to view amounts by date, you must enter 2 (net due date), 3 (invoice date), or 8 (G/L Date) in the Ledger Inquiry Sequence field, as you have done in previous releases of WorldSoftware. If you do not enter one of these values, you will not see amounts on the form.

You can display euro amounts on the Supplier Ledger Inquiry form in the following formats:

**Gross/ Open**

Amounts in the Gross and Open columns display in the euro, or other alternate currency, as designated in the processing option.

**Gross Only**

Same as Gross/Open.

**Domestic Gross/ Foreign Gross**

Amounts in the Domestic Gross and Open columns display in the euro currency. The foreign Gross and Open column amounts continue to display in the foreign transaction amounts.

This enhancement was not designed for currency restatement. It does not handle gains/losses, out-of-balance transactions caused by rounding, or integrity between tables. For exact amounts when working with an alternate currency, continue to use the currency restatement program.
Viewing Purchase Orders in the Euro

Purchase orders entered before 1 January 1999 are based on prior exchange rates, whereas purchase orders entered after 1 January 1999 this date are based on the fixed euro rate.

From the Purchasing Inquiries menu (G43A112), choose Open Orders.

To toggle between the domestic currency and the euro (or other as if currency), press F19.
To print the converted amounts on a report, press F21 while viewing the euro amounts.

**Processing Options**

To use the euro display functionality for Supplier Ledger Inquiry and Open Orders, you must set the following process options:

<table>
<thead>
<tr>
<th>Processing Option</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>As If Currency Display</td>
<td>The currency code in which you want to view as-if amounts. If left blank, amounts display in their original currency.</td>
</tr>
<tr>
<td>As Of Date</td>
<td>The date to use for calculating the exchange rate for the as-if currency. If left blank, the Thru Date is used. If both the processing option and the Thru Date are blank, the system (today’s) date is used.</td>
</tr>
</tbody>
</table>

**Application Outside of the EMU**

The euro display functionality, which allows you to view amounts in your domestic currency and an alternate currency, was designed for viewing amounts between two currencies that are irrevocably fixed to one another. For example, between the DEM and the euro. You can also use the euro display functionality to view amounts between other currencies, as long as the rate between the currencies is a fixed exchange rate.

You can use the euro display functionality to view and compare amounts between any currencies and not just EMU member currencies. For example, you can view amounts in an alternate currency, such as the Japanese yen, and compare those amounts to your domestic currency amounts. You should be aware, however, that if the exchange rates are not fixed, there are limitations. The voucher amount you view, for example, may not be the same amount as the actual payment because of the fluctuating exchange rates.

One of the advantages to the euro display functionality is that it does not impact disk space. The as if amounts you view are kept in temporary memory and are not stored in a table.
Electronic Formats and the Euro

The new euro currency will impact the electronic formats that companies in Economic and Monetary Union (EMU) member nations currently use.

The formats, which vary between countries, support either domestic or foreign payments. Some countries have identified and published their revised formats for the euro, while others are in the process of doing so. J.D. Edwards research thus far indicates that the changes to the formats are minor. Many domestic payment formats are being enhanced to support both the euro and the domestic currency.

With the introduction of the euro, several countries are creating new electronic formats, while others are enhancing their existing formats.

J.D. Edwards research on the electronic format requirements for each EMU member nation has been dependent on each country’s timetable for the completion of their requirements. As a result, the software enhancements for electronic formats are in several cumulative updates.

Electronic Format Changes by Country

The following tables include a list of the electronic formats that J.D. Edwards has enhanced thus far to support the euro. These formats are listed by country and the release in which they are available.

As additional format requirements are published by EMU member nations, J.D. Edwards will make changes to electronic formats and include them in future releases.
### France

<table>
<thead>
<tr>
<th>Release</th>
<th>Country Requirement Number</th>
<th>Program Number/Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A7.3 CU10</td>
<td>F1</td>
<td>P04572F1 A/P EFT Domestic Tape</td>
</tr>
<tr>
<td></td>
<td>F3</td>
<td>P03575FD A/R Auto Debit file</td>
</tr>
<tr>
<td></td>
<td>F4</td>
<td>P03572 A/R Drafts Remittance</td>
</tr>
</tbody>
</table>

### Germany

<table>
<thead>
<tr>
<th>Release</th>
<th>Country Requirement Number</th>
<th>Program Number/Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A7.3 CU9</td>
<td>D1</td>
<td>P04572G1 A/P EFT Domestic Tape</td>
</tr>
<tr>
<td></td>
<td>D2</td>
<td>P04572G2 A/P EFT Domestic Diskette</td>
</tr>
</tbody>
</table>

### Italy

<table>
<thead>
<tr>
<th>Release</th>
<th>Country Requirement Number</th>
<th>Program Number/Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A7.3 CU10</td>
<td>I3</td>
<td>P03577 A/R Magnetic RiBa Remittance</td>
</tr>
</tbody>
</table>
### the Netherlands

<table>
<thead>
<tr>
<th>Release</th>
<th>Country Requirement Number</th>
<th>Program Number/Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A7.3 CU9</td>
<td>NL1</td>
<td>P04572H1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A/P Payments - Domestic (ClieOp2)</td>
</tr>
<tr>
<td></td>
<td>NL2</td>
<td>P04572H2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A/P Payments - Foreign (BTL91)</td>
</tr>
<tr>
<td>A7.3 CU10</td>
<td>NL3</td>
<td>business partner owned A/R Auto Debits (ClieOp2)</td>
</tr>
<tr>
<td></td>
<td>NL4</td>
<td>version of P04572H1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A/P Payments - Foreign (ClieOp3)</td>
</tr>
</tbody>
</table>
Financial Reporting and the Euro Transition Period

During the euro transition period, which begins 1 January 1999 and continues through 31 December 2001, companies may need to provide financial and fiscal reports in their national currency as well as in the euro.

For example, a German company that still uses deutsche marks (DEM) as their base currency might need to provide their parent company with consolidation information in the euro. Another German company that has already converted their base currency to the euro might need to provide the German fiscal and tax authorities with reports in the deutsche marks.

Checklist: Reporting During the Euro Transition Period

Complete the items in the following checklist to provide financial reporting during the euro transition period. The first item in the checklist is an European Union (EU) requirement:

- Calculate gains and losses in the euro
- Create balance reports in the euro
- Create detail reports in the euro
- View detail transactions in the euro
- Create Intrastat reports
- Create tax reports in the euro
- Restate asset costs in the euro

Topics in This Section

This section, Financial Reporting and the Euro Transition Period, includes the following topics:

- Euro Realization for Monetary Accounts in G/L
- Creating Balance Reports in the Euro
- Creating Detail Reports in the Euro
- Viewing Transaction Amounts in the Euro
- Creating Intrastat Reports in the Euro
- Creating Tax Reports in the Euro
- Revaluing Assets in the Euro
Euro Gain and Loss Realization for Monetary Accounts

Monetary accounts are currency-specific accounts, which are typically bank accounts. These accounts are assigned a currency code and accept only transactions that are in that currency.

To realize the gains and/or losses created by fixing the exchange rates for Economic and Monetary Union (EMU) member currencies, you must reevaluate all monetary accounts that are assigned EMU member currency codes.

This topic describes the following:

- When to calculate euro gain and loss realization for monetary accounts
- G/L setup requirements for euro gain and loss realization
- Calculating euro gain and loss realization for monetary accounts

When to Calculate Euro Gain and Loss Realization for Monetary Accounts

To realize the gains and/or losses created by fixing the exchange rates for EMU member currencies, you must reevaluate all monetary accounts that are assigned EMU member currency codes. You do this one time only on 31 December 1998. After the gain or loss is recorded in the monetary account, you will not record any more gains or losses for EMU currency-specific accounts. This is because exchange rates are fixed to the euro as of 1 January 1999 and will no longer fluctuate between EMU member currencies.

To calculate this one-time realized gain or loss on your monetary accounts, you run the Monetary Account Valuation program.
G/L Setup Requirements for Euro Gain and Loss Realization

Before you can calculate and record euro realization for your monetary accounts, you must ensure that the following are set up correctly:

- Realized gain and loss accounts
- Automatic accounting instructions (AAIs)
- Processing options

Realized Gain and Loss Accounts

For euro realization, you must set up realized gain and loss accounts for your monetary accounts. If you use the Monetary Account Valuation program to calculate realized gains and losses for your monetary accounts, these accounts already exist. You might want to set up special G/L accounts for euro realization.

If you use the Monetary Account Valuation program to calculate unrealized gains and losses, the unrealized gain and loss accounts already exist. You will continue to use these accounts for non-EMU currency accounts.

Automatic Accounting Instructions (AAIs)

When you calculate realized and unrealized gains and losses, the system uses AAIs to distribute the gain or loss to the correct G/L accounts. The AAI items for G/L monetary accounts are (xxx represents the currency code):

- GVxxx for unrealized gains
- GWxxx for unrealized losses
- GRxxx for unrealized gain/loss offsets

You must change or add unrealized AAI items by currency for GVxxx and GWxxx to point from unrealized accounts to realized accounts. These AAI items are used to create the adjusting journal entry for the realized gain and loss as of the end of 1998, at the time the fixed euro exchange rate is introduced.

You do not have to set up AAI item GRxxx if you want to use your monetary account for unrealized gains and losses. If you do not want to use your monetary account, you can set up a separate AAI item for GR and each currency code (xxx).

Processing Options for Monetary Account Valuation

When you run the Monetary Account Valuation program, a new processing option prevents a reversing gain/loss journal entry from being created. This is so that you can calculate the one-time gain or loss, which is due to the euro fixed exchange rates.
An existing processing option allows you to specify one of the following types of journal entries to create:

- Gains and losses
- Losses only
- Gains only
- No journal entries (proof mode)

**Calculating Euro Gain and Loss Realization for Monetary Accounts**

From the Multi-Currency Monthly Valuation menu (G1121), choose Monetary Account Valuation.

This program was enhanced to realize gains and losses for the euro. The Monetary Account Valuation program has not changed for unrealized gains and losses; you will continue to use it as usual.

To calculate realized gains and losses on monetary accounts for EMU member currencies, you must set up a separate DREAMWriter version of the Monetary Account Valuation program. Within the version, you can set a processing option to create journal entries for gains, losses, or both, and to not create a reversing entry. Each participating EMU member nation determines whether an adjustment should be made for gains, and when.

When you run the Monetary Account Valuation program for euro realization, the program creates the gain/loss journal entry *without* designating a reversing entry, if the processing option is set accordingly. Since the entry should create realized gains and losses, a reversing entry is not desired.

Notice that the Reverse or Void field on Journal Entries is blank.
For more information about the Monetary Account Valuation program, see the following chapters in the *General Accounting I Guide*:

- **Understanding Monetary Account Valuation**
- **Calculating Unrealized Gains and Losses on Monetary Accounts**
Creating Balance Reports in the Euro

€

With balance currency restatement, you can restate existing company balances into another currency. The advantages of balance currency restatement over detailed currency restatement are that you can restate balance amounts in many different currencies and that processing balance currency restatement uses far less disk space.

The balance restatement program was enhanced to use the no inverse method when restating balance amounts in the euro. It does this by using the override conversion method designated on the Set Daily Transaction Rates form instead of the conversion method designated on the General Accounting Constants form. In this way, the balance restatement program does not violate the no inverse rule.

It is possible to follow the triangulation rule with balance restatement by restating amounts into the euro, and then the desired currency. To do this, you use triangulation to restate your balance amounts from one EMU member currency to the euro and then restate those balance amounts from the euro to the other EMU currency. For example, you would restate balance amounts from the DEM to the EUR and then from the EUR to the FRF. The reason you must triangulate euro balances manually is that the balance restatement program uses exchange rates defined in the Currency Restatement Rates table (F1113), not the Exchange Rate tables (F0015 and F00151).

If you make prior year adjustment entries (document type ##), you must run the balance restatement program from inception-to-date to include those adjustments. Otherwise, prior year adjustments will not be included.

You can restate two ledgers into one alternate currency ledger. For example, you can restate actual amounts and local adjustments into one ledger for local books. And then restate that amount into one euro amount in the AC (restatement) ledger.

For more information about balance currency restatement, see the General Accounting I Guide.
Creating Detail Reports in the Euro

For financial and fiscal reporting during the euro transition period, you can create detailed reports in the euro even if your base currency is still an Economic and Monetary Union (EMU) member currency.

Companies should carefully consider whether there is a valid business need to have reports at the transaction level in both their national currency and the euro. To do this, you must create an entirely separate set of books in the euro. If possible, companies should create euro reports at the balance level instead.

This topic includes the following:

- Restating currency amounts using detailed restatement
- Restating transactions using allocations (alternate method)

Use allocations as an alternate method only if you already use detailed currency restatement for another purpose.

Restating Currency Amounts Using Detailed Restatement

Before you restate your base currency amounts in the euro, determine whether you really need those amounts restated at a detail level. Most companies should be able to restate their currency amounts at the balance level and not have to restate amounts at the detail level.

Restating amounts at the detail level has sizing implications because all domestic currency transactions in the general ledger are duplicated in the alternate currency ledger. For example, if you enter approximately 2,000 records on a monthly basis, you will have 4,000 records for each month after you run detailed currency restatement. This can have a considerable impact on your system disk resources.
For purposes of currency restatement, the no inverse/triangulation functionality is available for Detailed Currency Restatement (P11411) only and is not available for the Compute Restated Balances program (P11414). This is because the Compute Restated Balances program uses a different rate table, which has not been enhanced. See Creating Balance Reports in the Euro.

The Detailed Currency Restatement program restates general ledger transactions in one other currency, such as the euro. Use this program to restate transaction amounts from a company’s standard set of books (AA ledger type) to a euro amount in the alternate currency ledger (XA ledger type). The limitation to this program is that you can restate amounts in only one currency.

The Detailed Currency Restatement program uses the no inverse method when restating amounts from EMU member currencies to the euro. The program uses the most recent effective exchange rate and the override conversion method in the exchange rate table to calculate a new transaction amount in the euro. It reads the existing transactions in the general ledger and creates new euro transactions in the alternate currency ledger.

For purposes of currency restatement, the triangulation functionality is available for detailed restatement only and is not available for balance restatement. The balance restatement program uses a different rate table, which is not part of the enhancement.

To view detailed transactions online in the euro, see Viewing Transaction Amounts in the Euro.

For more information about detailed currency restatement, see the following chapters in the General Accounting I Guide:

- Understanding Detailed Currency Restatement
- Setting Up Detailed Currency Restatement
- Calculating Detailed Currency Restatement
- Reviewing and Approving Detailed Currency Transactions

**Restating Transactions Using Allocations**

For companies that already use detailed currency restatement for another purpose, the Indexed Allocation program provides an alternate method to viewing euro amounts at the transaction level during the euro transition period. With indexed allocations, you copy transactions in the general ledger, apply a rate, and create new transaction records in a different ledger type.
Depending on whether your base currency has been converted to the euro, you can create transactions for detailed reporting either from the euro to an EMU member currency or from an EMU member currency to the euro. The amounts are restated at the detail level in the Account Ledger table (F0911) if allocation method T is used.

For more information about indexed allocations, see *Working with Indexed Allocations* in the *General Accounting I Guide*.

Rounding issues occur when using this method. Use it cautiously.
Viewing Transaction Amounts in the Euro

Before, during, and after converting to the euro you can view transaction amounts in three currencies: domestic, foreign, and the euro (or any other “as if” currency). To view these different transaction amounts, you use the euro display functionality. For financial reporting, this functionality is included in the Account Ledger Inquiry program and many financial and localization reports.

The euro display functionality allows you to view transactions in a currency other than the currency in which they were actually stored. In this regard, it is different from viewing the amounts created by detailed currency restatement. The euro display functionality was not designed for purposes of balance restatement.

The amounts you view when you use the euro display functionality depend on your processing options. You determine the as if currency and the as of date to calculate exchange rates and view amounts in the euro.

One of the advantages to the euro display functionality is that it does not impact disk space. This is because the euro amounts you view are kept in temporary memory and are not stored in a table.

This topic describes the following:

- Viewing euro amounts on Account Ledger Inquiry
- General ledger reports that use the euro display
- Localization reports that use the euro display
Viewing Euro Amounts on Account Ledger Inquiry

From the Journal Entries, Reports, and Inquiries menu (G0911), choose Account Ledger Inquiry.

The euro display functionality for the Account Ledger Inquiry form is the same as the functionality for the Customer and Supplier Ledger Inquiry forms in that you can view amounts in your domestic currency and the euro, or any other as if currency.

The euro display functionality for the Account Ledger Inquiry form is different from other ledger inquiry forms in the following ways.

You can view two ledger types simultaneously on the Account Ledger Inquiry, whereas you can view only one ledger type on the other ledger inquiry forms that use the euro display functionality. To view two ledger types, you must first set the dual ledger processing option.

There are two Ledger Type fields in the upper part of the Account Ledger Inquiry form. In the left field, you enter the ledger type in which to view euro amounts. In the right field, you enter the ledger type in which to view your domestic currency amounts. For example, you can view budget amounts in the euro and budget or actual amounts in your domestic currency.

If you view amounts for the CA (alternate currency) ledger, remember that the amounts are meaningless. That is because the CA ledger contains more than one currency and the euro display restates only one currency at a time.
You can view transactions for a fiscal period only. The From and Thru dates must encompass a fiscal period, whereas you can view a specific range of dates with the other inquiry programs that use the euro display functionality.

To toggle between the euro and domestic currency amounts, press F19. To print the euro amounts on a report, press F21 while viewing the euro amounts.

If a currency code appears above the amount column on the left, you are viewing amounts in the as if currency. If a code does not appear, you are viewing amounts in the domestic currency.

Depending on how you set the dual ledger processing option, you can display euro amounts on the Account Ledger Inquiry form in one of the following formats:

**One Ledger Format** Displays amounts in a debit and a credit column for the ledger you specify. Press F19 to display euro amounts in the debit and credit columns.

**Two Ledger Format** Displays amounts in the ledger 1 (left) and ledger 2 (right) columns for the two ledgers you specify. You can view euro amounts for the ledger 1 column amounts only.

To view both domestic and euro amounts, enter AA in the two Ledger Type Fields. The euro amount displays in the left column and the domestic currency displays in the right column.
General Ledger Reports That Use the Euro Display

The following programs use the euro display functionality for financial reporting:

- Print Account Ledger (P09200P)
- G/L Legal Name Register (P09404)
- G/L by Object Report (P09421)
- G/L by Category Code (P09470)

The euro display functionality is also available online using Account Ledger Inquiry (P09200).

Localization Reports That Use the Euro Display

The following localization reports use the euro display functionality:

<table>
<thead>
<tr>
<th>Report Name</th>
<th>Program Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAT Report Print</td>
<td>P7400C1</td>
</tr>
<tr>
<td>VAT on Receipts</td>
<td>P7400C2</td>
</tr>
<tr>
<td>VAT on Payments</td>
<td>P7400C3</td>
</tr>
<tr>
<td>G/L by Object</td>
<td>P7409C1</td>
</tr>
<tr>
<td>G/L by Category Code</td>
<td>P7409C2</td>
</tr>
<tr>
<td>General Ledger</td>
<td>P7409C2A</td>
</tr>
<tr>
<td>Trial Balance by Object</td>
<td>P7409C3</td>
</tr>
<tr>
<td>Trial Balance by Category Code</td>
<td>P7409C4</td>
</tr>
<tr>
<td>General Journal</td>
<td>P7409C5</td>
</tr>
<tr>
<td>Italian Suspended VAT Report</td>
<td>P74079</td>
</tr>
<tr>
<td>Italian Monthly VAT Report</td>
<td>P004051</td>
</tr>
</tbody>
</table>
### Viewing Transaction Amounts in the Euro

<table>
<thead>
<tr>
<th>Report Name</th>
<th>Program Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italian VAT Summary Report</td>
<td>P74093</td>
</tr>
<tr>
<td>Italian Annual VAT File Build</td>
<td>P00911</td>
</tr>
<tr>
<td>A/P Ledger Report</td>
<td>P7404014</td>
</tr>
<tr>
<td>A/R Ledger Report</td>
<td>P7403013</td>
</tr>
<tr>
<td>A/P Open Amount Report</td>
<td>P7404026</td>
</tr>
<tr>
<td>A/R Open Amount Report</td>
<td>P7403025</td>
</tr>
</tbody>
</table>

When you set the processing options for these reports, make sure you designate the As If Currency and the As Of Date as described in this document.

The Italian Annual VAT File Build (and two Intrastat Update programs) is unlike other programs that use the euro display enhancement. It writes amounts to a table, whereas the other programs do not.

### Processing Options

To use the euro display functionality for Account Ledger Inquiry and selected reports, you must set the following process options:

<table>
<thead>
<tr>
<th>Processing Option</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>As If Currency Display</td>
<td>The currency code in which you want to view as if amounts. If left blank, amounts display in their original currency.</td>
</tr>
<tr>
<td>As Of Date</td>
<td>The date to use for calculating the exchange rate for the as-if currency. If left blank, the Thru Date is used. If both the processing option and the Thru Date are blank, the system (today's) date is used.</td>
</tr>
</tbody>
</table>
The Account Ledger Inquiry program has an additional processing option that you can set:

<table>
<thead>
<tr>
<th>Processing Option</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dual Ledger Display</td>
<td>This displays a second Ledger Type field, so that you can view two ledger types.</td>
</tr>
</tbody>
</table>

**Application Outside of the EMU**

The euro display functionality, which allows you to view amounts in your domestic currency and an “as if” (alternate) currency, is useful in any multi-currency environment. You can view and compare amounts between *any* currency. For example, you can view amounts in an alternate currency, such as the Japanese yen, and compare those amounts to your domestic currency amounts.

Additionally, on the Account Ledger Inquiry form, you can view amounts in two different ledgers. For example, you can view budget amounts in the Japanese yen and budget or actual amounts in your domestic currency. Be aware, however, that if you view amounts for the CA (alternate currency) ledger, the amounts are meaningless. That is because the CA ledger contains more than one currency and the euro display restates only one currency at a time.

One of the advantages to the euro display functionality is that it does not impact disk space. The as if amounts you view are kept in temporary memory and are not stored in a table.

The euro display functionality does not replace balance currency restatement. You will continue to use balance currency restatement when restating currencies with exchange rates that fluctuate against other currencies.
Creating Intrastat Reports in the Euro

Due to the introduction of the euro, some Economic and Monetary Union (EMU) member nations have made or are in the process of making changes to their Intrastat reporting requirements. Each EMU member nation will continue to determine its own Intrastat requirements.

After the introduction of the euro, one of the following situations might apply to your company:

- Your company has not converted its base currency to the euro, but the government of the EMU member nation in which you do business requires that you submit Intrastat reports in the euro
- Your company has converted its base currency to the euro, but the government of the EMU member nation in which you do business is not prepared to handle Intrastat reports in the euro and requires that you submit them in the national currency

The euro display enhancement provides a simplified approach to reviewing and printing amounts in a currency different from your base currency for Intrastat reporting.

The government of each EMU member nation determines whether Intrastat reporting must be submitted in the euro or a national currency beginning in 1999. Regardless of whether you have converted your base currency to the euro, your company can meet the reporting requirements.

This topic describes the following:

- What to consider before you create Intrastat reports
- Intrastat programs that use the euro display
- Updating the Intrastat workfile
- Intrastat format changes

For more information about Intrastat reporting, see the Global Solutions Guides or the Tax Reference Guide.
What to Consider Before You Create Intrastat Reports

After 1 January 1999 and before you create Intrastat reports, ask the following questions:

- What is the base currency of each of my companies?
- In which currency must I submit Intrastat reports for each of my companies?

If your business has multiple companies with multiple currencies, it is important that you approach your Intrastat reporting carefully during the euro transition period. You should always know the base currency of each company and whether Intrastat reports must be in a national currency or the euro. In this way, you ensure that you convert currencies for Intrastat reporting only as necessary.

Example: Company and Intrastat Reports in Different Currencies

Your business has three companies, each with a different base currency. You process all Intrastat reports at the end of 1998.

<table>
<thead>
<tr>
<th>Company</th>
<th>Base Currency as of 1 January 1999</th>
<th>Intrastat Currency for 1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company 1</td>
<td>EUR</td>
<td>DEM</td>
</tr>
<tr>
<td>Company 2</td>
<td>BEF</td>
<td>BEF</td>
</tr>
<tr>
<td>Company 3</td>
<td>FRF</td>
<td>EUR</td>
</tr>
</tbody>
</table>

On 1 January 1999, company 1 converted its base currency from the German deutschmark to the euro. Companies 2 and 3 did not convert their base currencies.

The government for company 1 and company 2 require that they submit Intrastat reports in the German deutschmark and Belgian franc, respectively. The government for company 3 requires that they submit reports in the euro.

For Intrastat reporting purposes, you should convert the euro amounts for company 1 back to the deutsche mark and convert the amounts for company 3 to the euro. You do not need to convert the amounts for company 2.

For company 1 and 3, you run the Intrastat update programs to load the information in the Intrastat workfile (F0018T) and at the same time convert the amounts. You do this one company at a time, creating a separate DREAMWriter version to designate DEM and EUR, respectively.
Intrastat Programs That Use the Euro Display

The following Intrastat programs use the euro display functionality:

- Update Extra Tax file - Sales (P001811)
- Update Extra Tax file - Purchasing (P001812)

Updating the Intrastat Workfile

Before you can create Intrastat reports in the euro, or other as if currency, you must run the Update Extra Tax file programs for Sales and Purchasing (on the EU VAT Processing menu, G00211).

These two programs use the euro display functionality to convert the transaction amounts to an as if currency and then write them to the EU Intra-Community workfile (F0018T). Each amount is converted separately, following the no inverse method of exchange rate calculation and triangulation.

For example, a German company has converted its base currency to the euro but must report all Intrastat information in deutsche marks. The program converts the euro (base currency) to deutsche mark (as if currency) and updates the deutsche mark amount in the F0018T table for Intrastat reporting.

These two update programs (and the Italian Annual VAT File Build program) are unlike other programs that use the euro display functionality. They write amounts to a table, whereas the other programs do not.

If you have converted all of your companies to the euro and you must submit Intrastat reports in a national currency, run the Clear Extra Tax File program first. This removes the records that you select from the Intrastat workfile (F0018T). You can then run the update programs to update the Intrastat workfile, one currency at a time, and create Intrastat reports in the national currency.

Processing Options for Update Extra Tax file

To use the euro display functionality for Update Extra Tax file for Sales and Purchasing programs, you must set the following process options:

<table>
<thead>
<tr>
<th>Processing Options</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>As If Currency</td>
<td>Enter the currency code, such as EUR, for as if reporting. The program converts and writes amounts to a tax table. This allows you to write amounts in a currency other than the currency in which they were stored.</td>
</tr>
</tbody>
</table>
### A7.3 CU10 Implementation Guide

<table>
<thead>
<tr>
<th>Processing Options</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>As Of Date</td>
<td>Enter the date to use for calculating the exchange rate for the as if currency.</td>
</tr>
</tbody>
</table>

If you have records prior to 1 January 1999, be careful that you do not inadvertently convert them to the euro. Make sure that the as of date in the processing options is 010199.

### Intrastat Format Changes

With the introduction of the euro, some EMU member nations have made or are in the process of making changes to their Intrastat reporting formats.

### Germany

The German government requires that Intrastat reports include both euro and domestic currency amounts. The German Intrastat program (P0018IG) has been enhanced to accommodate this country-specific requirement. It uses the euro (as if currency) and domestic currency amounts that are created when you update the Intrastat workfiles.
Creating Tax Reports in the Euro

Many European companies use the Tax Detail and VAT Exception reports to help them complete their VAT return forms. During the euro transition period, you can create and print these reports in a currency other than the base currency of your company.

For example, your company has converted its base currency to the euro, however, your government still requires tax reports in the national currency. To handle these types of situations, you can create tax reports in a currency different from your base currency by using the euro display functionality.

Tax Reports That Use the Euro Display

The following tax reports use the euro display functionality:

- Use and VAT Tax (P0018P)
- VAT Exceptions (P001807)

The euro display functionality used by these tax reports follows the no inverse method of exchange rate calculation. These tax reports print amounts in an as if currency; they do not write any amounts to a tax table.

The Use and VAT Tax and VAT Exceptions reports are located on the Tax Processing and Reporting menu (G0021).

For more information about these reports, see the Global Solutions Guide and the Tax Reference Guide.
## Processing Options

To use the euro display functionality for Use and VAT Tax and VAT Exceptions reports, you must set the following process options:

<table>
<thead>
<tr>
<th>Processing Option</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>As If Currency</td>
<td>Enter the currency code, such as EUR, for as if reporting. The program prints amounts in a currency other than the currency in which they are stored.</td>
</tr>
<tr>
<td>As Of Date</td>
<td>Enter the date to use for calculating the exchange rate for the as if currency.</td>
</tr>
</tbody>
</table>
Revaluing Assets in the Euro

The euro conversion process converts asset amounts to the euro. However, if your company has not yet run the euro conversion process, you might want to restate the cost of your assets in the euro. You can revalue your assets in the euro during the euro transition period, before you convert your base currency to the euro.

Before you revalue your assets in the euro, you must set up the following for your new euro balance amounts:

- Ledger type
- Subledger and subledger type

When you revalue your assets in the euro, the Revaluation Journal program stores the restated amounts in one of these ledger or subledger types.

If you set up a new ledger type for the euro, you can depreciate your assets in your base currency and the euro. You do this by setting up user-defined, date-effective depreciation rules. These rules can be different for each asset ledger type. Because these rules are date sensitive, you can easily respond to any new rules that your government may require for fixed asset reporting.

The Revaluation Journal program, in final mode, updates the Item Master (F1201), Item Balances (F1202), and Account Ledger (F0911) tables with the new euro amounts. This program is located on the Asset Valuation menu (G1234).

For more information about asset revaluation, see the following chapters in the Fixed Assets Guide:

- Understanding Revaluation
- Calculating Revaluation
Appendices
Euro Questions and Answers

This document includes some common questions and answers about the euro as it applies to J.D. Edwards software. The topics in this document include the following:

- Releases
- Applications and functionality
  - General
  - No inverse and triangulation
- Documentation and classes

The information in this document assumes that you understand certain terminology used when describing the euro and euro functionality. Refer to the Glossary in this guide, if necessary.

Releases

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>For clients with WorldSoftware and OneWorld coexistence, what releases need to be installed to use the euro functionality?</td>
<td>Clients need to install WorldSoftware release A7.3 CU9 or above and OneWorld release B73.3 in order to coexist and use the euro functionality. In other words, if a client installs WorldSoftware release A7.3 CU9 (or above) and activates the no inverse and triangulation functionality, that client also needs to install OneWorld release B73.3 in order to coexist.</td>
</tr>
<tr>
<td>When will non-English versions of OneWorld B73.3 software be released?</td>
<td>Non-English versions of release B73.3 will be available at the same time the English version is released.</td>
</tr>
</tbody>
</table>
### Question
What are the major differences between A7.3 CU9 and A7.3 CU10?

### Answer
A7.3 CU10 includes the following additional enhancements:
- Software Action Request (SAR) corrections for euro and non-euro functionality
- Ability to enter transaction-level spot rates when triangulation is activated
- Intrastat changes
- Electronic format additions
- Online Invoice (euro display functionality)

Will manual payments and auto cash receipts be enhanced to allow for alternate currency payments and receipts?

As of WorldSoftware A7.3 CU11, manual payments and auto cash receipts will be enhanced to allow for alternate currency processing.

In what release are the euro conversion programs?

The euro conversion programs are available in WorldSoftware E-9. These programs convert your company's base currency to the euro and also include integrity programs to ensure data integrity during the conversion process.

### Applications and Functionality

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>How are partial payments handled?</td>
<td>If an open voucher needs to be partially paid in an alternate currency, you must split the open voucher before you begin the payment process.</td>
</tr>
</tbody>
</table>
**Question**

What if a client already uses detailed currency restatement for another purpose?

**Answer**

The detailed currency restatement program can only be used to restate one additional currency. If a FRF company already restates into the USD, it would not be able to use detail currency restatement to restate into the euro. (The company would, however, be able to use the balance restatement program to restate their FRF balances into the euro.)

A company needs to determine whether it truly needs euro transaction amounts at the detail level. Even companies that do not use the restatement functionality for another purpose will want to carefully consider whether they need detailed information in the euro. That is because detail currency restatement can have a significant sizing impact on your system resources.

An uncomplicated workaround exists. If general ledger transactions are needed for the euro at the detail level and detailed currency restatement is already being used for another purpose, a company could download the detail information to a spreadsheet and restate the transactions there. Since the euro exchange rate is fixed, this workaround should not be difficult. A company could also use the allocations program to restate general ledger transactions using the fixed exchange rate.

---

**No Inverse and Triangulation**

**Question**

Some countries will be required to follow the no inverse/triangulation rules for currency conversion, others will not. How should I handle this?

**Answer**

The rules you follow for currency conversions will depend on the country in which you transact business and your company’s interpretation of the rules and regulations that exist due to the the euro and irrevocably fixed exchange rates.

As of A7.3 CU9 (and subsequent cumulative updates), J.D. Edwards WorldSoftware has the ability to handle currency conversions for both EMU member nations and non-EMU member nations that transact business with one another, or independent of one another.
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can companies outside of the EMU use triangulation and the no inverse</td>
<td>Companies outside of the EMU can use the triangulation and no inverse method functionality. For example, if a Japanese company does a significant amount of business with a German company, it might choose to set up the JPY and DEM currencies to triangulate through the euro, since the JPY to DEM exchange rate will no longer be officially quoted after 31 December 1998.</td>
</tr>
<tr>
<td>method?</td>
<td></td>
</tr>
<tr>
<td>Can I enter spot rates at the transaction level for currencies that I</td>
<td>As of release A7.3 CU10, you can enter spot rates on transactions between an EMU and non-EMU currency. For transactions between two EMU member currencies, spot rates are no longer valid because of the fixed euro exchange rate.</td>
</tr>
<tr>
<td>have set up for triangulation?</td>
<td></td>
</tr>
<tr>
<td>What is the difference between amounts derived from a cross rate and</td>
<td>The amounts derived from a cross rate are different from the amounts using triangulation.</td>
</tr>
<tr>
<td>amounts derived using triangulation?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The examples on the following page illustrate the differences.</td>
</tr>
</tbody>
</table>
Example: Converting German deutschemarks to French francs

Assume you are converting German deutschemarks (DEM) to French francs (FRF) using the following (unofficial) exchange rates:

- 1 EUR = 1.98166 DEM
- 1 EUR = 6.63258 FRF

The following table shows the converted amounts, one based on using triangulation and the other based on a cross rate. The amounts are calculated as if seven decimal places are stored, as is the case with J.D. Edwards software. (If a system permits a cross rate to go out to 12 decimal places, there would be no difference in the results.)

<table>
<thead>
<tr>
<th>Amount of DEM</th>
<th>Triangulation</th>
<th>Cross Rate to FRF (to 7 decimal places)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Calculation:</td>
<td>Calculation:</td>
</tr>
<tr>
<td></td>
<td>DEM/1.98166 = EUR</td>
<td>FRF = DEM x (6.63258/1.98166)</td>
</tr>
<tr>
<td>1,000</td>
<td>3,346.98</td>
<td>3,346.98</td>
</tr>
<tr>
<td>10,000</td>
<td>33,469.82</td>
<td>33,469.82</td>
</tr>
<tr>
<td>100,000</td>
<td>334,698.18</td>
<td>334,698.16</td>
</tr>
<tr>
<td>1,000,000</td>
<td>3,346,981.82</td>
<td>3,346,981.60</td>
</tr>
<tr>
<td>10,000,000</td>
<td>33,469,818.23</td>
<td>33,469,816.00</td>
</tr>
<tr>
<td>100,000,000</td>
<td>334,698,182.33</td>
<td>334,698,160.00</td>
</tr>
</tbody>
</table>

Example: Converting French francs to German deutschemarks

Assume you are converting a payment of 2,500,000 French francs to German deutschemarks using the following (unofficial) exchange rates:

- 1 EUR = 1.92573 DEM
- 1 EUR = 6.45863 FRF

<table>
<thead>
<tr>
<th>Triangulation</th>
<th>Cross Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,500,000 FRF / 6.45863 = 387,078.9935 EUR</td>
<td>2,500,000 FRF x (1.92573 / 6.45863) = DEM</td>
</tr>
<tr>
<td>387,078.994 EUR x 1.92573 = 745,409.63 DEM</td>
<td>2,500,000 FRF x 0.2981638 = 745,409.50 DEM</td>
</tr>
</tbody>
</table>
## Documentation and Classes

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>What documentation is available for the euro?</td>
<td>For release A7.3 CU10, the following documentation is available:</td>
</tr>
<tr>
<td></td>
<td>• A7.3 CU10 Implementation Guide featuring the euro. Describes the euro enhancements and their use.</td>
</tr>
<tr>
<td></td>
<td>• A7.3 CU10 Programmers Guide for Euro Enhancements and Euro Pick Lists. Provides a technical overview of the no inverse/triangulation enhancements and the Financials and Manufacturing &amp; Distribution program pick lists.</td>
</tr>
<tr>
<td></td>
<td>• Source Compares. Lists program code changes.</td>
</tr>
<tr>
<td></td>
<td>For E9, the following documentation is available:</td>
</tr>
<tr>
<td></td>
<td>• Euro Installation, Conversion, and Integrities Guide.</td>
</tr>
<tr>
<td></td>
<td>• Conversion and Integrities Program Pick Lists.</td>
</tr>
<tr>
<td>In which languages will the euro documentation be translated?</td>
<td>The A7.3 CU10 Implementation Guide featuring the euro will be available in German, French, Italian, and Spanish. The A7.3 CU10 Programmer's Guide for Euro Enhancements and Euro Pick Lists, however, will be available only in English.</td>
</tr>
<tr>
<td>In what format will the documentation be released?</td>
<td>The euro documentation will be available in printed guides, as well as on CD for WorldSoftware A7.3 CU10.</td>
</tr>
<tr>
<td>Will euro training classes be available? Who do I need to contact to request classes?</td>
<td>To inquire about euro training classes, contact the J.D. Edwards Training Center in your area.</td>
</tr>
</tbody>
</table>


**BASDA.** Business and Accounting Software Developers Association. Established in 1993, this organization is comprised of leading business and accounting software developers who have an interest in the development, accreditation, and marketing of business and accounting related software products.

**BASDA EMU accreditation.** The Business and Accounting Developers Association (BASDA) has set standards for the application software industry in relation to the euro. These standards are based on the requirements established by the European Union (EU) for the introduction and conversion to the euro. There are two levels of Economic and Monetary Union (EMU) accreditation, as established by BASDA: compliant and advanced.

**base currency conversion programs.** These programs convert a company’s base currency to the euro and ensure data integrity between tables. These programs are available in WorldSoftware E9.

**convergence criteria.** Economic conditions that are defined in the Maastricht Treaty. To join the European Monetary Union (EMU) as of spring 1998, a European Union (EU) member nation has met the economic conditions set forth in the four convergence criteria. These criteria relate to inflation, interest rates, exchange rates, and fiscal positions.

**conversion programs.** See customer master conversion program, supplier master conversion program, and base currency conversion programs.

**conversion rates.** In relation to the euro, this is an exchange rate used for currency conversions to or from the euro and an EMU member currency. Inverse rates derived from the exchange rates are not allowed, according to European Union (EU) regulations.

**cost generation program.** For A7.3 CU9 and subsequent releases, this program copies an existing cost record, calculates a new cost in the euro, and creates a new cost record with the euro amount.

**cross rates.** Two exchange rates that are divided to calculate a new rate, which is called the cross rate. According to European Union (EU) regulations, a cross rate is allowed on transactions between EMU member companies only if it provides the same result as triangulation.

**CU.** Cumulative Updates. Includes software fixes and enhancements to a base software release. The euro enhancements and functionality are available in CU9 (and subsequent cumulative updates) for release A7.3.

**customer master conversion program.** For A7.3 CU9 and subsequent releases, this program automatically converts customer address book amounts and/or default currencies to the euro.

**currency relationships.** When converting amounts from one currency to another, the currency relationship defines the “from currency” and the “to currency” in J.D. Edwards software. For example, to convert amounts from deutsche marks to the euro, you first define a currency relationship between those two currencies.

**dual pricing.** To provide prices for goods and services in two currencies. During the euro transition period, dual pricing between
the euro and Economic and Monetary Union (EMU) member currencies is encouraged.

**E9.** Includes the conversion programs required to convert a company’s base currency to the euro and the integrity programs that ensure data integrity between tables.

**ECB.** European Central Bank. The executive body of the European System of Central Banks (ESCB) that monitors monetary policy and the introduction of the euro banknotes and coins in the EMU. The primary objective of the ECB is to maintain price stability. Established in 1998, the ECB will become fully operational on 1 January 1999. The ECB is part of the ESCB.

**ECU.** European Currency Unit. A unit of account used by European Union (EU) banks and institutions. This currency unit is a composite of the currencies of some EU member nations. The ECU is being replaced by the euro at a one-to-one ratio.

**EMU.** Economic and Monetary Union. A single monetary policy within a single economic market. A monetary union is achieved by locking exchange rates between countries and merging national policies. In relation to the euro, the EMU consists of eleven member nations as of the spring of 1998.

**EMU member nations.** As of spring 1998, eleven European Union (EU) countries have met the convergence criteria necessary to become members of the Economic and Monetary Union (EMU). These countries are: Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and the United Kingdom. As of spring 1998, eleven of the EU member nations are members of the Economic and Monetary Union (EMU).

**EU member nations.** The 15 countries that comprise the European Union (EU). These countries are: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and the United Kingdom. As of spring 1998, eleven of the EU member nations are members of the Economic and Monetary Union (EMU).

**EUR.** The ISO (International Organization for Standardization) currency code for the new currency, the euro.

**Euro.** The official and single currency of Economic and Monetary (EMU) member nations. (During the transition period, the EMU national currencies will continue to exist alongside the euro.) Euro denominations range from 0.01 to 2 euro (coins) and from 5 to 500 euro (banknotes). The euro will be divided into 100 subunits that are called cents.

**Euro display.** For A7.3 CU9 and subsequent releases, this software enhancement allows you to view and print transactions in an *as if* currency. For
example, this enhancement allows a user to view deutsche mark amounts *as if* they were stored in the euro.

**European Commission.** Part of the European Union (EU), the members of the European Commission have executive, administrative, and legislative responsibilities and recommend exchange rate policy for the euro.

**Euro gain and loss realization.** The European Commission has regulated the way that gains and losses are recognized due to the introduction of the euro. All gains and losses on monetary amounts, which are denominated in an EMU member currency, must be recognized due to irrevocably fixed euro exchange rates.

**FEE.** Fédération des Experts Comptables Européens. An organization that represents the accountancy profession in Europe in relation to the institutions of the European Union (EU).

**Generation programs.** See price generation program and cost generation program.

**IASC.** International Accounting Standards Committee. An independent organization that works to achieve uniformity in the accounting principles that are used by companies.

**IOSCO.** International Organization of Securities Commissions. Member agencies that work together to establish standards and an effective surveillance of international securities transactions.

**Irrevocably fixed.** A phrase used to describe any national currency that is locked to a fixed exchange rate. The exchange rates between Economic and Monetary Union (EMU) member currencies and the euro are locked as of 31 December 1998.

**Maastricht Treaty.** Sets forth the four convergence criteria that European Union (EU) member nations are required to meet in order to become Economic and Monetary Union (EMU) member nations and take part in the euro. This treaty was signed in 1992 and is also referred to as the “Treaty on European Union.”

**Member nations.** See EU member nations and EMU member nations.

**No compulsion, no prohibition.** A principle that states that a creditor cannot require a debtor to transact business in a specific currency during the euro transition period, and vice versa, unless agreed upon in a contract.

**No inverse.** A legal requirement that states that Economic and Monetary Union (EMU) member nations cannot use the inverse of the officially published exchange rates when converting amounts to other EMU member currencies.

**Non-EMU.** Used to describe any currency or country that is outside of the Economic and Monetary Union (EMU).

**Override conversion method.** A method of calculating exchange rates that is set up between two specific currencies. For those specific currencies, this method overrides the conversion method in General Accounting Constants and does not allow inverse rates to be used when calculating currency amounts.

**Phases of implementation.** See EMU timetable.

**Phase B.** The second phase of the transition to the single currency. This phase is the effective start of the EMU and is from 1 January 1999 through 31 December 2001.

**Phase C.** The third phase of the transition to the single currency. This phase is the definitive changeover to the euro and is from 1 January 2002 through, at the latest, 30 June 2002.

**Price generation program.** For A7.3 CU9 and subsequent releases, these programs copy an existing base price or advanced price record, calculate a new price in the euro, and create a new price record with the euro amount.
prudence principle. An accounting principle which states that exchange losses should be recognized immediately, whereas exchange gains should be recognized at the time they are realized.

realization. See euro gain and loss realization.

rounding. European Union (EU) regulations state that amounts less than 3 decimal places are not allowed when calculating amounts to the euro (triangulation).

spot rates. An exchange rate entered at the transaction level. Spot rates are not used on transactions between two EMU member currencies because exchange rates are irrevocably fixed to the euro.

supplier master conversion program. For A7.3 CU9 and subsequent releases, this program automatically converts supplier address book amounts and/or default currencies to the euro.

transition period. The time frame in which Economic and Monetary Union (EMU) member nations can transact business in either their national currency or the euro, as they prepare for the definitive changeover to the euro. The transition period is from 1 January 1999 through 31 December 2001.

Treaty on European Union. See Maastricht Treaty.

triangulation. To convert amounts from one Economic and Monetary Union (EMU) member currency to any other currency, calculating through the euro. Triangulation combines the use of the multiplier and divisor exchange rate by dividing a foreign currency amount when converting to the euro and multiplying the euro amount when converting to the domestic currency.
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