



Infor LN Overview Guide for Currencies

Release 2022.x

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Publication Information

Release: Infor LN 2022.x

Publication Date: December 5, 2022

Document code: ln_2022.x_comcurrovug__en-us

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About this Guide

Assumed knowledge

Although you need no detailed knowledge of the LN software to read this guide, general knowledge of the LN functionality will help you understand this guide.

References

Use this guide as the primary reference for information about defining currencies and currency systems. Use the current editions of the *Infor LN Financials User Guide for Currency Initialization (CRI)* for information that is not covered in this guide.

How to read this document

This document is assembled from online Help topics.

Text in italics followed by a page number represents a hyperlink to another section in this document.

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Chapter 1: Introduction

Currencies - overview

You can use many different currencies in the transactions with your business partners. To register, calculate, and report amounts, LN converts the amounts to the company's home currency. You can use a multicurrency system to register amounts in more than one home currency.

Types of currencies

To convert foreign transaction currencies to a company's home currency, and to register amounts in different currencies, you can define these types of currencies:

- Home currencies
- Transaction currencies
- Reference currencies

Currency format

Different currencies require different presentations. The currency format determines the precision (number of decimals) LN uses to display amounts in the currency.

Currency exchange rates

LN converts the amounts between different currencies by using the *currency exchange-rates* that you define. The multicurrency system used by the company determines the exchange rates that you must define.

Note: If the transaction currency and the home currency are the same, no exchange rate is applied. LN copies the transaction amount to the home currency amount.

Defining currencies

Currencies are initially defined as generic units. For each unit, you must select the currency format. Next, you must specify the currencies used in each company of your multicompany environment. See [Defining currencies](#).

Calculating currencies

For details about how LN calculates the amounts that appear on the invoices, See [Currency details](#).

Multicurrency systems

To use *multicurrency accounting*, you must set up a multicurrency system. The currency system of a company determines how amounts are calculated and registered.

Currency initialization

Currency Initialization (CRI) allows you to adapt your organization's currency system to changing needs for the internally used currencies. This user guide includes an outline of the currency initialization procedure. For comprehensive information about currency initialization, see the *Infor LN Financials User Guide for Currency Initialization (CRI)*.

Chapter 2: Currencies

Types of currencies

To convert foreign transaction currencies to a company's home currency, and to register amounts in different currencies, you can define these types of currencies:

- Home currencies
- Transaction currencies
- Reference currencies

Home currencies

A company's home currencies are the base currencies that the company uses to express and register all amounts internally. An LN company can use up to three internal home currencies.

In addition to the home currencies, a company uses external currencies for the transaction with business partners. You must select a company's home currencies in the Companies (tceem1170m000) session.

These types of home currencies are available:

- **Local**
The legal currency of the country in which the company is established. Tax reporting must usually be carried out in the *local currency*. In a logistic company, LN uses the local currency to store the amounts for which you do not specify a specific currency. For example, inventory costs in Warehousing.
- **Reporting 1 and Reporting 2**
In addition to the local currency, a company can use one or two *reporting currencies*. If the company uses reporting currencies, LN calculates and stores the local currency amounts both in the local currency and in the reporting currencies.
In sessions that display home currency amounts, you can use the Rotate Currency command from the Tools menu to display the amount in each of the home currencies in turn. If you print a report, you can usually select the home currency to be used for the report.

Reference currency

For all currency systems except the standard currency system, you must select one of the home currencies as the *reference currency*.

In the standard currency system (default), the reference currency:

- Can be defined independently of the local and reporting currencies.
- Can be, but does not have to be, one of the home currencies.

- Can be used to express amounts that represent balances across multiple companies, for example, lot prices in Warehousing.

For currency systems other than the standard currency system, the reference currency is a company's base currency for all calculations between currencies.

LN uses the reference currency to convert amounts from the transaction currency to the home currencies in these multicurrency systems:

- Single multicurrency systems
- Dependent multicurrency systems

In independent multicurrency systems, LN converts the transaction amounts directly from the transaction currency to the home currencies.

Note: All companies of a multicompany structure must use the same reference currency.

Transaction currencies

In addition to the home currencies, companies use a number of transaction currencies, which are the currencies used for transactions with your business partners.

For example, these amounts are expressed in transaction currencies:

- Contract amounts
- Invoice amounts
- Price lists

You can select a default transaction currency for each business partner.

Defining currencies

Currencies are initially defined as generic units. For each unit, you must select the currency format. Next, you must specify the currencies used in each company of your multicompany environment.

To define currencies and their formats:

- 1 In the **Generic Units (ttaad1106m000)** session, define the currency as a generic unit. LN already includes a number of predefined generic units that represent currencies.
- 2 In the **Formats by Generic Unit (ttaad1107m000)** session, select a generic unit that represents a currency and specify the currency format. Repeat this for each generic unit that represents a currency and for each format code.
- 3 In the **Currencies (tcmcs0102m000)** session, define your company's currencies. The currency codes must be identical to the generic unit codes defined in the **Generic Units (ttaad1106m000)** session. To achieve this it is easiest if you start both sessions, because you cannot browse.
- 4 Select the reference currency, local currency, and reporting currencies for the companies as required in the **Companies (tcecm1170m000)** session.

Note:

Take care that:

- The currency code that you define in the **Currencies (tcmcs0102m000)** session is identical to the code of the corresponding generic unit defined in the **Generic Units (ttaad1106m000)** session.
- The *rounding factor* that you specify for the currency in the **Currencies (tcmcs0102m000)** session has the same or a lower precision than the format you specified in the **Formats by Generic Unit (ttaad1107m000)** session. If you specify a rounding factor with a higher degree of precision it will have no effect.

International currency codes

International Currency Codes (ISO 4217)

Code	Description
AED	United Arab Emirates Dirham
AUD	Australian Dollars
ARS	Argentinean Pesos
BHD	Bahraini Dinar
BOB	Bolivian Boliviano
BMD	Bermudian Dollars
BRL	Brazilian Real
BGL	Bulgarian Lev
CAD	Canadian Dollars
CHF	Swiss Francs
CLP	Chilean pesos
CHY	Chines Yuan Renmimbi
CYP	Cypriot Pounds
CZK	Czechish Republic Koruna
DKK	Danish Kroner
EGP	Egyptian Pounds
EUR	Euro
FJD	Fijian Dollars
FIM	Finnish Markka
FRF	French Francs
GBP	United Kingdom Pounds
HKD	Hong Kong Dollars

Code	Description
HUF	Hungarian Forint
ISK	Iceland Krona
INR	Indian Rupees
IDR	Indonesian Rupiah
ILS	Isrealian New Shekels
JOD	Jordanian Dinar
JPY	Japanese Yen
KRW	Korean (South) Won
LBP	Lebanese Pounds
MYR	Malaysian Ringgit
MXN	Mexican Pesos
NZD	New Zealand Dollars
NOK	Norwegian Kroner
PKR	Pakistani Rupees
PHP	Philippines Pesos
PLZ	Polish Zloty
ROL	Romanian Leu
RUR	Russian Rubles
SAR	Saudi Arabian Riyal
SGD	Singaporean Dollars
SKK	Slovakian Koruna
SEK	Swedish Krona
TWD	Taiwanese Dollars
THB	Thailand Baht
TRY	Turkish Lira
USD	United States Dollars
VEB	Venezuelan Bolivar
ZAR	African Rand

Rounding

The rounding method is applied to the decimals that exceed the number of decimals specified for the numeric format.

For example, if the value is 28.34875 and the number of decimals for the numeric format is set to 2, the rounding method applies to the decimals 875. Depending on the rounding method, the result is 28.35 or 28.34.

You can specify the way calculated amounts must be rounded for the following situations:

- **Currency rounding**
LN rounds calculated amounts according to the *rounding factor* defined for the currency in the **Currencies (tcmcs0102m000)** session. The amounts are rounded to the nearest multiple of the rounding factor. For most currencies, a rounding factor of 0.01 is used.
LN applies this type of rounding to all calculated amounts.
- **Rounding of tax amounts**
After the currency rounding, tax amounts are rounded again, this time according to the rounding method selected for the tax code in the **Tax Code by Country (tcmcs0136s000)** session. The rounding method for tax amounts can be **Down**, **Normal**, or **Up**. For more information, refer to **Rounding Method**.
- **Rounding of grand total amounts**
In some countries, the total amounts on legal documents that you send to your customers must be rounded in a specific way. For example, In Switzerland, total amounts on sales invoices in Swiss francs must be rounded to 0.05 francs.
To meet this requirement, you can define a *grand total rounding factor*. For more information, refer to **Grand total rounding**

Rounding differences

If rounded amounts are posted, to balance the accounts, LN posts the *rounding differences* to the ledger accounts and dimensions you defined for rounding differences in the **Finance Company Parameters (tfld0503m000)** session.

The following differences exist between currency rounding and grand total rounding:

- **Currency rounding**
LN calculates the rounding difference that results from currency rounding as follows:
$$\text{Rounding difference} = \text{Sum of all rounded amounts for debit lines} - \text{sum of all rounded amounts for credit lines per currency in a document.}$$

Currency rounding differences are posted when you finalize the transactions in the General Ledger.
- **Grand total rounding**
LN calculates the rounding difference that results from grand total rounding as follows:
$$\text{Rounding difference (grand total rounding)} = \text{Invoice amount rounded with normal rounding} - \text{invoice amount rounded with grand total rounding.}$$

Currency rounding differences are posted when you post the invoices in Invoicing.

Example

A rounding factor of 0.05 results in the following rounded amounts:

Calculated amount in the range	Rounded amount
6.00 to 6.02	6.00
6.03 to 6.07	6.05
6.08 to 6.10	6.10

Grand total rounding

To set up a grand total rounding factor:

- 1 In the **Implemented Software Components (tccom0100s000)** session, select the **Grand Total Rounding** check box.
- 2 In the **Currencies (tcmcs0102m000)** session, specify the *grand total rounding factor* in the **Grand Total Rounding Factor** field. If you do not want to use a grand total rounding factor, set this field to zero.

LN applies grand total rounding to the total invoice amount, which includes the tax amount and rebate amounts. The actual total invoice amount and the rounded invoice amount are both printed on the invoice.

If you use grand total rounding, *rounding differences* can occur during the creation of open entries in Accounts Receivable when invoices are posted from Invoicing to Financials.

If you use grand total rounding, on the following documents, LN rounds the total amounts according to the grand total rounding factor:

- Sales quotations
- Sales contracts
- Sales acknowledgement
- Service contracts
- Reserved commission/rebates
- Bill of lading
- Delivery notes
- Service contract quotation
- Service order quotation
- Service order
- Maintenance sales order
- Project bidding
- Sales invoices (including invoices from all origins)

Example

If the grand total rounding factor is 0.05, grand total rounding results in the following amounts on a composed sales invoice:

Amount type	Amount	Tax amount	Total amount
Sales order line 1	7.23	0.94	8.17
Sales order line 2	12.35	1.61	13.96
Total invoice amount			22.13
Rounded invoice amount			22.15
Rounding difference			-/- 0.02

Using currency formats

You use currency formats to define the precision that LN uses to display and round currencies. You must define a currency format for each currency that you define.

LN can handle a number of different currencies for one *logistic company* or *financial company*. The different currencies can require a different degree of precision.

Low degree of precision

Currencies of which the basic unit represents a relatively low value usually require a low degree of precision. Amounts in these currencies are generally presented as whole numbers, such as the Japanese Yen and the Korean Won.

High degree of precision

Currencies whose basic unit represents a relatively high value usually require a high degree of precision. Amounts in these currencies are generally presented with two or more decimals, such as the American dollar, the European Euro, and the Brazilian real.

Format codes

You use format codes to define more than one format for a currency. You can define formats with different degrees of precision to be used for different purposes.

For example, you can calculate invoice amounts with a higher degree of precision than you use to calculate internal costs.

Defining format codes

A format code represents a format type that is used for a category of prices and amounts. Start the **Formats (ttadv4585m000)** session in Tools to list the predefined format codes in LN.

You use the format codes to specify formats with different degrees of precision for one currency when it is used for different purposes.

Example

In a specific currency you want to register and display:

- Prices with two decimals
- Rates as whole numbers
- All other amounts with one decimal

To define the formats:

- 1 Define the currency as a generic unit in the **Generic Units (ttaad1106m000)** session.
- 2 Define the currency in the **Currencies (tcmcs0102m000)** session.
- 3 Select the format code for prices (003) in the **Formats by Generic Unit (ttaad1107m000)** session and then select the currencies' generic unit. Specify a format with two decimals.
- 4 Select the format codes for rates (001, 002, 400, in turn) in the **Formats by Generic Unit (ttaad1107m000)** session, then select the currencies' generic unit. Specify a format with no decimals.
- 5 Specify a format with one decimal for the currencies' generic unit for all other format codes.

As a result, users can enter prices with up to two decimals, rates in whole numbers only, and other amounts with one decimal. LN also calculates prices up to two decimal places.

Using currency exchange rate types

Use the currency exchange rate types to assign different *currency exchange-rates* to:

- Different invoice-to business partners
- Different types of transactions, such as purchase orders, sales invoices, internal calculations, for example, and intra-European Union reporting

In the **Exchange Rate Types (tcmcs0140m000)** session, you must define at least one exchange-rate type for a company.

In the Companies (tceem1170m000) session, you can select the company's default exchange rate types to be used for sales transactions, purchase transactions, internal calculations, and various types of reports that you must submit to the authorities.

You assign currency exchange-rates to a currency exchange-rate type in the **Currency Rates (tcmcs0108m000)** session.

Default company exchange rates

In the Companies (tceмм1170m000) session, you can select the company's default exchange rate types to be used for sales transactions, purchase transactions, internal calculations, and external reporting.

Reporting rate types

In the Ledger Account Settings by Individual Account (tfгld0128m000) session, you can define exchange rate types to be used for reporting.

Business partner exchange rates

You select a currency exchange-rate type for an invoice-to or invoice-from business partner in the **Invoice-to Business Partner (tccom4112s000)** or the **Invoice-from Business Partner (tccom4122s000)** sessions.

Transaction exchange rates

You must select default currency exchange-rate types for a company's sales, purchase, and internal transactions in the **Companies (tceмм1170m000)** session.

Internal exchange rates

LN uses the internal exchange rates to convert amounts of all transactions other than sales and purchase transactions. In a dependent multicurrency system, LN also uses the internal exchange rates for standard cost calculations.

External exchange rates

In all EU countries, for the *European sales listing* and the *Intrastat report*, foreign currency amounts must be converted to the local currency amounts, which are often in euros.

The rules for the currency rates to be used can differ between the countries. In some countries it is allowed to use your internal company rates and in other countries you have to use specific exchange rates, for example, the rates used by the European Central Bank.

For each financial company, you can select the default external exchange rate that must be used, for example, for the *Intrastat report*, in the **Companies (tceмм1170m000)** session. The EU tax handling sessions are set up in such a way that you can generate the amounts to be reported both as internal values for your own audits, using the transaction exchange rates and as declaration values using the prescribed external exchange rates. For details, refer to Using the external exchange rate type.

Multicompany exchange rate types

The companies of a multicompany structure must share the exchange rate types (tcmcs040) table. You must select the same default currency exchange-rate types for the company's sales, purchase, and internal transactions in the **Companies (tceмм1170m000)** session.

To define currency rates

LN uses the *currency exchange rates* to convert transaction amounts into amounts in the company's home currencies. Use the Currency Rates (tcmcs0108m000) session to define currency rates.

Currency systems and currency rates

You can only define currency rates between the transaction currencies and the company's home currencies. You cannot define currency rates between two currencies that are not home currencies. The home currencies are the currency base in the **Currency Rates (tcmcs0108m000)** session. The currency rates that you must define depend on the currency system used. See Currency systems and currency rates for details.

Express in base currency

For each currency rate you can indicate whether:

- The rate must be expressed in the base currency (one unit of the base currency is so many units of the external currency).
- The rate must NOT be expressed in the base currency (one unit of the external currency is so many units of the base currency).

The rate factor

You can use the rate factor to avoid extremely high or low values of a currency exchange-rate. Depending on the setting of the **Express in Base Currency** field in the **Currency Rates (tcmcs0108m000)** session, LN divides or multiplies the amount by the rate factor before the currency exchange-rate is applied. See also Example of rate factor.

Exchange rate types

You can define different currency rates for the different *exchange-rate types*. For example, you can specify different currency exchange-rates to be applied to purchase transactions, to sales transactions, and to internal transactions. See Using currency exchange rate types for details.

The effective date

LN uses the currency rates that is valid at the specified time and date to convert an amount. For example, you can usually specify that LN must use the currency rate that is valid:

- When you commit the transaction (the order date).
- When the transaction is invoiced (the invoice date).
- On a manually entered date.

A currency rate can only take effect if the **Rate Approved** check box in the **Currency Rates (tcmcs0108m000)** session is selected. The currency rate takes effect either at the date and time of the **Effective Date** field or the **Approval Date** field, whichever is the later.

LN uses the internal currency exchange rates to calculate and store the standard cost in the reference currency and to convert the item standard cost from the reference currency into the other home currencies. Therefore,

in a dependent multicurrency system, you cannot change a currency rate of the internal exchange rate type that is already used to calculate item standard costs.

The rate determiner

For most transactions you can select a *rate determiner*. The various rate determiners that are available are described in Rate determiners.

Rotate Currency

In the sessions that display amounts which are registered in more than one currency, you can choose Rotate Currency from the Tools menu to see the amounts in the different home currencies.

Currency systems and currency rates

In a *single currency system*, LN converts amounts from the transaction currency into the reference currency.

You must define the currency rates between:

- The external currencies and the reference currency.

In a *dependent currency system*, LN converts amounts from the transaction currency into the reference currency and from the reference currency into the other home currencies.

You must define the currency rates between:

- The external currencies and the reference currency.
- The reference currency and the other home currencies.

In an *independent currency system*, LN converts amounts from the transaction currency directly into the reference currency and into the other home currencies.

You must define the currency rates between:

- The external currencies and the reference currency.
- The external currencies and the other home currencies.

In a *standard currency system*, LN converts amounts from the transaction currency directly into the local currency and the reporting currencies.

You must define the currency rates between:

- All foreign currencies and all home currencies of the financial companies of a group.
- All foreign currencies and the reference currency.

Example of rate factor

If the **Express in Base Currency** check box is cleared:

$$(\text{Transaction currency amount} / \text{Rate factor}) * \text{Currency exchange rate} = \text{Currency-base amount}$$

Example

Currency base : American dollar

External currency : Japanese yen

If rate factor = 1
Currency exchange-rate = 0.00743

If rate factor = 100
Currency exchange-rate = 0.743

Rate determiners

LN converts amounts from the transaction currency to the home currencies using the currency rate that is valid according to the *rate determiner* that applies to the transaction.

You can select a default rate determiner for transactions with business partners in the following sessions:

- **Sold-to Business Partner (tccom4110s000)**
- **Buy-from Business Partner (tccom4120s000)**

For the *standard currency system*, you can use the following rate determiners:

- **Document Date**
- **Manually Entered**

For the other currency systems, you can use the following rate determiners:

- **Document Date**
- **Manually Entered**
- **Delivery Date**
- **Receipt Date**
- **Expected Cash Date**

In addition, for an *independent currency system*, the following rate determiners are available:

- **Fixed**
- **Fixed Local**
- **Fixed Hard**
- **Fixed Local and Hard**

Document Date

If the rate determiner is **Document Date**, LN uses the rate that is valid on the date and time at which the documents are created.

The **Document Date** rate determiner applies to all types of transactions. You can manually change the rate. If you write off currency differences, LN includes open entries with this rate determiner only if the document date has passed.

The default rate is the rate that is valid on the order date. If you generate the sales invoice in Invoicing, LN uses the rate that is valid on the invoice document date.

Manually Entered

If the rate determiner is **Manually Entered**, you can manually enter the rate. By default, LN uses the rate that is valid on the date and time at which the documents are created.

The **Manually Entered** rate determiner applies to all types of transactions. If you write off currency differences, LN includes open entries with this rate determiner only if the document date has passed.

When you generate the sales invoice in Invoicing, LN copies the rate from the order document to the invoice.

Delivery Date

If the rate determiner is **Delivery Date**, LN uses the rate that is valid on the expected delivery date and time on the sales order or service order.

The **Delivery Date** rate determiner only applies to sales orders, service orders, and sales invoices. You cannot manually change the rate. If you write off currency differences, LN includes open entries with this rate determiner only if the expected delivery date has passed.

The rate is determined for the sales order. When you generate the sales invoice in Invoicing, LN copies the rate from the sales order to the invoice.

Receipt Date

If the rate determiner is **Receipt Date**, LN uses the rate that is valid on the date and time at which you expect to receive the goods.

The **Receipt Date** rate determiner only applies to purchase orders and purchase invoices. You cannot manually change the rate. If you write off currency differences, LN includes open entries with this rate determiner only if the expected receipt date has passed.

The rate is determined for the purchase order. If you use the self billing functionality to generate the purchase invoice, LN copies the rate from the purchase order to the invoice.

Expected Cash Date

If the rate determiner is **Expected Cash Date** LN uses the rate that is valid on the date and time on which payment of the sales invoice or purchase invoice is expected.

Expected cash date = expected delivery/receipt date + payment period

The payment period is specified in the **Payment Terms (tcmcs0113s000)** session.

The **Expected Cash Date** rate determiner applies to all types of transactions. You cannot manually change the rate. If you write off currency differences, LN includes open entries with this rate determiner only if the expected cash date has passed.

If you generate the sales invoice in Invoicing, LN uses the rate that is valid on the invoice document date plus the number of days from the payment terms.

Fixed rates

The following general rules apply to the various **Fixed** rate determiners:

- Fixed rate determiners only apply to an *independent currency system*.
- The rate is fixed only if you enter it manually. If you do not enter the rate manually, LN uses the rate that is valid on the document date.
- When you write off currency differences, no currency differences are calculated for open entries with a fixed rate determiner.

Fixed

You can use the **Fixed** rate determiner only for an *independent currency system* or a *single currency system* system.

If you manually enter the rates between the transaction currency and the home currencies, the rates are fixed. The other rates are based on the document date of the actual document.

If you do not manually enter the rate for the local currency, the rates are not fixed. LN uses the rates that are valid on the date and time at which the documents are created.

The **Fixed** rate determiner applies to all types of transactions. When you write off currency differences, no currency differences are calculated for open entries with this rate determiner.

If you manually entered the rates, LN copies the rates from the order document to the invoice when you generate the sales invoice in Invoicing. If you did not manually enter the rates LN uses the rate that is valid on the invoice document date when you generate the sales invoice in Invoicing.

Fixed Local

You can use the **Fixed Local** rate determiner only for an independent currency system. If you manually enter the rate between the transaction currency and the local currency, the rate is fixed. The other rates are based on the document date of the actual document.

If you do not manually enter the rate for the local currency, the rate is not fixed. LN uses the rate that is valid on the date and time at which the documents are created.

The **Fixed Local** rate determiner applies to all types of transactions. When you write off currency differences, no currency differences are calculated for the local currency for open entries with this rate determiner.

If you manually entered the rate, LN copies the local currency rate from the order document to the invoice when you generate the sales invoice in Invoicing. For the reporting currencies, LN uses the rates that are valid on the invoice document date. If you did not manually enter the rate for the local currency, the rate is not

fixed. LN uses the rate that is valid on the invoice document date when you generate the sales invoice in Invoicing.

Fixed Hard

You can use the **Fixed Hard** rate determiner only for an independent currency system. If you manually enter the rates between the transaction currency and the reporting currencies, the rates are fixed. The local currency rate is based on the document date of the actual document.

If you do not manually enter the rates between the transaction currency and the reporting currencies, the rates are not fixed. LN uses the rate that is valid on the date and time at which the documents are created.

The **Fixed Hard** rate determiner applies to all types of transactions. When you write off currency differences, no currency differences are calculated for the reporting currencies for open entries with this rate determiner.

If you manually entered the rates, LN copies the reporting currency rate from the order document to the invoice when you generate the sales invoice in Invoicing. For the local currency, LN uses the rate that is valid on the invoice document date. If you did not manually enter the rates between the transaction currency and the reporting currencies, the rates are not fixed. LN uses the rates that are valid on the invoice document date when you generate the sales invoice in Invoicing.

Fixed Local and Hard

You can use the **Fixed Local and Hard** rate determiner only for an independent currency system. If you manually enter the rates between the transaction currency and the home currencies, the rates are fixed. The other rates are based on the document date of the actual document.

If you do not manually enter the rate for the local currency, the rates are not fixed. LN uses the rates that are valid on the date and time at which the documents are created.

The **Fixed Local and Hard** rate determiner applies to all types of transactions. When you write off currency differences, no currency differences are calculated for open entries with this rate determiner.

If you manually entered the rates, LN copies the rates from the order document to the invoice when you generate the sales invoice in Invoicing. If you did not manually enter the rates LN uses the rate that is valid on the invoice document date when you generate the sales invoice in Invoicing.

Chapter 3: Currency Systems

Currency systems

Multicurrency systems define how amounts are calculated and registered.

A multicurrency system determines:

- The number of home currencies that an organization can use.
- How amounts in transaction currencies are converted to the home currencies.

In multicompany environments, all companies must use the same multicurrency system.

A company's home currencies and currency system are selected in the **Companies (tcomm1170m000)** session.

These currency systems are available:

- The *standard currency system*
- The *dependent currency system*
- The *independent currency system*
- The *single currency system*

Standard currency system

The *standard currency system* provides extensive support for multinational organizations that operate in multiple countries.

To meet the financial and tax reporting requirements of multinational companies with subsidiaries in many countries, the standard currency system in LN provides these features:

- Direct translation of foreign currency transactions
Foreign currency transactions are translated straight from the *transaction* currency to the local currency, without *triangulation* through the *reference* currency. By default, reporting currencies are directly translated from the transaction currency into the reporting currency. However, reporting currencies can also be translated from the local currency.
- Integrations and multiple reporting currencies
Transactions can be recorded in one local currency and up to two *reporting* currencies. Only the local currency amounts are logged in the integration transactions, fixed assets, and reconciliation data. Before reporting in one of the reporting currencies, reconciliation of subledgers in the company's local currency must take place. Adjustment of reporting currency balances for *currency differences* is supported by the

Calculate Currency Differences (tfgld5201m000) session, which can be run for the local and the reporting currencies independently. For each of the home currencies the differences will be posted in separate transactions. Reconciliation of integration transactions on business object level is only possible in the local currency.

- Multiple home currencies

A home currency is the *local* currency, or a reporting currency used by a company for preparing the financial statement. Amounts in foreign currency are translated into amounts in any of the home currencies by using direct currency rates for the local currency and, depending on the **Translation Method** setting in the **Companies (tcomm1170m000)** session, either the transaction, or the local currency amount for the translation into the reporting currency amounts.

- Currency rotation

Rotate Currency functionality is available:

- In General Ledger, ledger history and dimension history sessions.
- In Accounts Payable and Accounts Receivable, sessions that display information on open items.

In these sessions, within a single company, Rotate Currency is available for every implemented home currency. Within a multicompany selection, Rotate Currency is available for every common currency, using *reporting currency groups*.

Because reporting currencies are translated according to predefined rules and rate types, currency rates for the reporting currencies cannot be modified during transaction entry.

- Currency rates retrieved from the Internet

Import of currency rates from the Internet is enabled by the **ISO Currency Code** field in the **Currencies (tcms0102m000)** session.

To import the currency rates, you must write your own program. LN only provides the interface.

- Calculation and posting of currency differences

The **Calculate Currency Differences (tfgld5201m000)** session can be run for each home currency separately and independently. The currency differences calculation process also considers the exchange rate type, specified on the ledger account, for the local and the reporting currencies independently.

Currency difference transactions are always created for each home currency separately.

The method of calculating currency differences depends on the **Translation Method** setting in the **Companies (tcomm1170m000)** session.

- Interim accounts

For several interim accounts, the original posting and the account clearing posting are not transacted in the same currency. For example, the purchase receipt / warehouse receipts that post over the interim transit 3 account, can have different transaction currencies. The purchase receipt may be in US dollars, whereas the warehouse receipt is always transacted in the local currency of the warehouse. In this case, a currency translation will take place, using the account that is defined in the **Finance Company Parameters (tfgld0503m000)** session. LN will detect any difference between the transaction currencies within a pair of debit/credit postings (one of these being the local currency of the particular company), and automatically create the additional translation transactions.

- Intercompany transactions

Intercompany transactions are reconciled in the transaction currency. For calculating the local and reporting currency amounts in intercompany transactions, only the transaction amount is used.

If required, in the standard currency system, intercompany accounts can be defined by transaction currency, meaning that the transaction currency determines to which intercompany account the transaction is posted.

- Chart of accounts

For each financial company, reporting rate type characteristics can be defined on ledger account level in the **Ledger Account Settings by Individual Account (tfgld0128m000)** session. Here, you can set the reporting rate type to:

- **Adopt Transaction's Exchange Rate Type**
- **Own Exchange Rate Type**
- **Company's Default**

If set to **Own Exchange Rate Type**, a rate type for the particular reporting currency must be entered. If no characteristics are entered for a specific ledger account, LN will use the company's default defined in the **Companies (tcomm1170m000)** session.

Tax accounts of the same financial company and tax origin (purchase/sales), as well as control accounts of the same financial company and origin (supplier/customer), must have the same reporting rate types characteristics. Therefore, reporting rate type features will be definable on these levels as well.

- Use of exchange rate types

To translate the transaction amount into the local currency amount, LN uses the rate belonging to the exchange rate type specified on the transaction. The currency rate used for the translation into the reporting currency depends on the exchange rate type specified on the ledger account to which it is posted.

Cash transactions will typically be translated against the spot exchange rate whereas monthly rates can be used for inventory and work in process. Typical exchange rate types known are daily rates, average rates, and monthly rates.

The calculate currency differences process can retrieve a rate based on the ledger account exchange rate type.

- Multiple reporting currencies in Accounts Payable and Accounts Receivable

The open entries in the Accounts Payable and Accounts Receivable modules are recorded in the company's local currency and reporting currencies.

In the standard currency system, local currency amounts are translated using the exchange rate type as specified on the transaction. Reporting currency amounts are calculated using the exchange rate type as specified on the control ledger account. Within a financial company, all control ledger accounts in a business partner group must have the same exchange rate types for the reporting currencies.

- Multiple reporting currencies in tax analysis and reporting

Because the same currency can be used as home currency more than once, it is possible to choose which home currency is used for tax analysis and which for tax declarations. This is useful to facilitate legal compliant reporting using a specific set of rates for tax. In the tax declaration master you can select the home currency position to be used in the tax declaration.

LN calculates reporting currency amounts using the exchange rate type as specified on the tax ledger account. Within a financial company, all purchase tax ledger accounts must have the same exchange rate types for the reporting currencies. The same applies to the sales tax ledger accounts.

- Write off currency differences on the ACP/ACR control accounts

LN calculates reporting currency differences using the exchange rate type and rate as specified on the control ledger account for each home currency. For each of the home (local and reporting) currencies, the currency difference is posted using a separate financial transaction.

- Reference currency

In the standard currency system, the reference currency:

- Can be defined independently of the local and reporting currencies.
- Can be, but does not have to be, one of the *home currencies*.
- Can be used to express amounts that represent amounts across multiple companies, for example, lot prices in Warehousing.

- Reports

In various print sessions data can be selected across multiple companies. In the standard currency system, financial reports can only be printed across financial companies that have at least one common currency. If there is more than one common currency, choose in which common currency the report must be printed using the appropriate *reporting currency group*.

If no common currency exists, printing reports across multiple companies is not possible.

- Logistical reports with currencies

The rate type to be used in translation to the reporting currency is also available in report sessions.

- Rate determiner

In the standard currency system, the rate determiner is only used to switch to manually entered rates. All other functions of the rate determiner have been moved to the rate type. In transaction entry sessions, the **Rate Determiner** field will show **Document Date** by default. If you want to overwrite the defaulted rate, set the rate determiner to **Manually Entered**.

- Finalization reports

Finalization reports must always be printed in the local currency of the company of the transactions concerned. As a result, if a batch for Company 100 contains transactions for Company 200, Company 200 transactions are printed on a separate report page in the local currency of Company 200.

- Shared balances

In LN various balances are kept on the level of an entire group of companies, for example, business partner balances and credit limits. In the standard currency system, balances are also kept on company level in the company's local currency. The group company balances are either kept in the reference currency, or in a user-definable currency. When these balances are recalculated, they are updated in the local currency. When the local currency is updated, the group balances are recalculated as well.

Single currency system

You must use a single currency system if all the enterprise units of a company use a single currency to register, calculate and report amounts.

Defining the currencies

For a single currency-system company you must enter the *reference currency*. LN uses the reference currency as the *local currency*.

Single currency calculation

You must define the exchange rate of each external currency to the reference currency. LN converts all the external currency amounts to the reference currency and registers, calculates, and reports all the amounts in that currency.

Independent multicurrency system

You use an independent multicurrency system in countries with an unstable local currency. For example, you can report to the tax authorities in the local currency and use a more stable currency for the company's financial management.

You can use an independent multicurrency system in both a single-company environment and in a multicompany (multiple countries) LN environment.

Defining the currencies

Each logistic and financial company in an independent multicurrency environment must have the same:

- Reference currency
- Local currency
- Reporting 1 currency
- Reporting 2 currency

Independent calculation

You must define the exchange rate of each external currency to each home currency. LN converts all the external currency amounts to all the home currencies and calculates and registers the amounts in each home currency independently.

Nor currency rates are used between the home currencies of an independent multicurrency system. Therefore, the home currencies are independent.

Exchange gain and loss calculation

Converting the transaction amounts directly from the transaction currency into the home currencies can result in inconsistencies between the transaction values in the different currencies.

For example, the exchange rates from USD to CHF and from DEM to CHF can be inconsistent with the exchange rate between USD and DEM. This can be caused by shifting exchange rates between the currencies, which is often the case with currencies that are subject to substantial inflation.

In an independent multicurrency system, you can use the **Calculate Destination Gain & Loss (tfgld5202m000)** session to calculate the differences in values that are caused by shifting currency rates. LN posts the differences to a specific ledger account that you can specify in the **Finance Company Parameters (tfgld0503m000)** session.

Dependent multicurrency system

A multicurrency system is typically used by companies that operate in countries using different currencies, or that require reports in multiple currencies.

You can use a dependent multicurrency system in both a single company and a multicompany (multiple country) LN environment.

Defining the currencies

The logistic and financial companies in a dependent multicurrency environment must have the same *reference currency*.

For the logistic company you must only define the reference currency. For the financial companies, one of the home currencies (the local or the reporting currencies) must equal the reference currency. The other home currencies can be different. You can select up to three home currencies.

In a logistic company, the local currency of the financial company that is linked to one of its enterprise units is used to store amounts.

Dependent calculation

In the logistic company and the financial companies, you must define the exchange rate of each external currency to the reference currency. LN converts all the external currency amounts to the reference currency.

In the financial companies, LN stores all transaction amounts in all the home currencies. The transaction amounts are first converted into the reference currency, and then the transaction amounts in the reference currency are converted into the other home currencies. In numerous sessions, you can rotate the currency.

In the financial companies you must also define the internal currency exchange rates between the home currencies. LN calculates and registers the amounts in the reference currency. LN then converts the reference currency amounts to the other home currencies based on the internal exchange rates.

Example of a dependent multicurrency system

Typically, a dependent multicurrency system is used if the enterprise units of a single logistic company reside in different countries. The enterprise units in each country belong to the financial company defined for that country.

Enterprise ABC Ltd is located in London, UK. There are two branch offices, SWE and NW. SWE is located in Stockholm, Sweden and NW is located in Oslo, Norway.

The main office in London and the branches use GBP as the reference currency. In addition to the reference currency, SWE's home currency is SEK, and NW's home currency is NOK.

This table shows how Enterprise ABC Ltd is set up in LN.

Part of organization	Logistic company	Enterprise unit	Financial company	Reference currency	Local currency
ABC main office	L1	EU_ABC	F1	GBP	GBP
SWE Stockholm branch office	L1	EU_SWE	F2	GBP	SEK
NW Oslo branch office	L1	EU_NW	F3	GBP	NOK

Currencies for non-enterprise units

In the dependent currency system you can link currencies to *enterprise units*.

For components other than enterprise units, LN uses the following currencies:

Type of amount	Currency
Item group surcharges	The item-group currency
Item surcharges	The item currency
Warehouse surcharges	The warehouses' local currency
Operation rates	The operation-rate currency
Project surcharges	The project calculation-office currency
Current purchase prices	Currency chosen by the user
Latest purchase prices	Currency chosen by the user
Average purchase prices	Currency chosen by the user
Simulated purchase prices	Currency chosen by the user
Subcontracting rates	Currency chosen by the user
Actual machine rate	The workcenter's currency
Actual employee rate	The workcenter's currency
Item standard cost	The item currency
General costs	The project calculation-office currency

Chapter 4: Currency Initialization

Currency Initialization

Currency Initialization (CRI) allows you to adapt your organization's currency system to changing needs for the internally used currencies. This topic provides you with an outline of the currency initialization procedure. For comprehensive information about currency initialization, see the *Infor LN Financials User Guide for Currency Initialization (CRI)*.

Two types of currency conversion are available:

- Internal
To convert the company's home currencies to new home currencies, for example, to euro.
- External
To convert transaction amounts and currencies to euros.

To carry out currency initialization:

- 1 Verify that you have carried out the necessary prerequisite actions, as described in [Currency initialization prerequisites](#) on page 32
- 1 .
- 2 Define the conversion cluster in these sessions:
 - Use the **CI Clusters (tccri7501m000)** and the **CI Clusters (tccri7101s000)** sessions to define the initialization type, the new currency system, and the new reference currency.
 - Use the **CI-Cluster Companies (tccri7502m000)** and the **CI-Cluster Companies (tccri7102s000)** sessions to define the new home currencies for each conversion-cluster company.
 - Use the **CI Cluster Transaction Currencies (tccri7104m000)** session only for an external currency initialization, to select the EMU transaction currencies that must be converted to euros.
- 3 Use the **CI Rates (tccri7100m000)** session to define the exchange rates between the currencies that are currently in use and the new home currencies.
- 4 Specify the customized tables and fields that must be converted, the conversion rules to be applied, and the priority with which the table or field must be converted, in these sessions:
 - **CI Tables (tccri7522m000)**
 - **CI-Conversion Table Parameters (tccri7123s000)**
 - **CI Fields (tccri7521m000)**
 - **CI-Conversion Field Parameters (tccri7122s000)**
- 5 Process the conversion cluster. Before you start the actual initialization process, you can perform one or more trial initializations to generate error logs. If all the errors are corrected, you can run the actual initialization process to change the data in the database. Use these sessions:

- **CI Process (tccri7203m000)**
- **CI Error Log (tccri7520m000)**

6 View or print the audit data. You can delete the audit data after printing the data. Use these sessions:

- **Print Audit Files (tccri7401m000)**
- **Process Data (tccri7503m000)**
- **CI Process-Data Internal (tccri7504m000)**
- **CI Process-Data Internal (tccri7505s000)**

Note: Details of each step are described in the Currency Initialization user guide.

Currency initialization prerequisites

Before you start a currency initialization process, take care of the following:

- As much as possible, transactions must be finalized before you start the initialization process, for the following reasons:
 - During internal currency initialization, the currency rates between the transaction currencies and the new home currencies defined in the **CI Rates (tccri7100m000)** session, are copied to the **Currency Rates (tcmcs0108m000)** session and the effective date is set to the initialization date. Next, the currency rates between the transaction currencies and the new home currencies with an effective date earlier than the initialization date do not exist. Therefore, after internal currency initialization you cannot carry out any actions on invoices and other documents with a document date earlier than the initialization date.
 - No audit data is recorded for nonfinalized transactions because these are still subject to change. If not all transactions can be finalized, you can print the report of nonfinalized transactions before or after the initialization process, depending on your audit needs.
- All nonmodifiable batches in Financials must be finalized. If this is not the case, the conversion process is aborted. If you run a trial conversion process, the error log includes any nonfinalized batches.
- The ledger accounts and related data required for posting rounding differences and for dual accounting must be specified in the **Finance Company Parameters (tfgld0503m000)** session.
- Before you start currency initialization, always generate a backup for safety reasons. You can only reverse currency initialization by reinstalling the backup. If the currency initialization process stops due to a failure, you must reinstall the backup to recover the tables.

Euro compliance

From 1 January 1999, enterprises that use a currency that is part of the Economic and Monetary Union (EMU) can do their accounting in euros.

LN is Euro-compliant, which means that you can use LN to:

- Complete transactions with business partners that use the Euro.
- Do your accounting and financial reporting in Euros.

The following LN features support the use of the Euro:

- Multicurrency

- *Triangulation*

To set up Euro compliance, you must:

- Indicate in the **Currencies (tcmcs0102m000)** session whether currencies belong to the EMU.
- Define the currency exchange rates to convert the EMU currencies to the Euro, in the **Currency Rates (tcmcs0108m000)** session. The Euro must be the base currency for these exchange rates.
- Set up your financial companies in one of the following ways: As dependent multicurrency companies that use the Euro as their reference currency. As single currency companies that use the Euro as their currency. Logistic companies must use the same reference currency as the related financial companies.

Note: EMU currencies must be converted to Euros using fixed exchange rates. The Euro must be the base currency for these exchange rates. To achieve this, LN converts EMU currencies to Euros by using the currency exchange rates that you define in the **Currency Rates (tcmcs0108m000)** session. You must base the exchange rates on the Euro. For example, EUR 1 = NLG 2.2037. You cannot select other exchange rates in other sessions, for example, on order level.