CEA Configurable Macro User Guide

Infor LX 8.3.5

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Chapter 1 Introduction to Configurable Macros

1

This chapter provides an overview of configurable macros and describes the three types of configurable macro operations.

The chapter consists of the following topics:

Overview

Configurable macros allow you to tailor the operations performed over the Infor® ERP LX™ database to your specific needs. You can configure macros to create custom journal entries that are unique to your business.

Configurable macros function similarly to the other predefined macros you receive with Infor ERP LX V8.3.5. Like other predefined macros, you use configurable macros to define the following parts of a model:

- Account segment
- Amount that posts to an account balance
- Reference field
- Analysis field

During model resolution, both types of macros retrieve the information that the ATP posting engine inserts into the appropriate journal model from the Infor ERP LX database.

Configurable macro processing is designed; however, to provide you with additional flexibility during model resolution. Configurable macros allow you to modify the retrieved information to fit your specific needs. You can use configurable macros to perform additional arithmetic or other functions on the retrieved information.

For example, you can define a configurable macro to resolve a positive value as a debit and a negative value as a credit. If the value retrieved is negative, the configurable macro process multiplies the value by negative one.

You can use a configurable macro to extract data from a field. For example, you record your sales revenue on the basis of the item brand code and the item number contains the brand code. With configurable macro processing, you can extract the brand code from the item number and use the result to point to the proper sales revenue account.

Configurable macro processing is a powerful tool that enables you to create your own unique journal entries. Instead of Infor ERP LX determining the data you can use to create journal entries, Configurable Macro Processing lets you define the information you need.

Configurable Macro Processing

There are three types of configurable macro operations: arithmetic, character, and special operations. Arithmetic operations allow arithmetic calculations with a combination of fields, constants, and macros. Character operations allow concatenation of fields and field subsets. Special operations allow calculations with absolute values and user-defined date formats. You use a combination of fields in the Macro file (GAM) to define these operations.

Review the material below to familiarize yourself with macros before you create configurable macros.

Arithmetic Operations

Arithmetic operations enable you to use a combination of fields, constants, and macros to perform arithmetic calculations.

The following calculations are available for arithmetic operations:

- Add (+)
- Subtract (-)
- Multiply (*)
- Divide (/)

You can use the following combinations to perform the defined arithmetic operation:

- Source field and a constant value
- Source field and the result retrieved by a macro

Character Operations

Character operations enable you to concatenate two fields or retrieve a subset of a field. Character operations include the following types:

- Concatenate

This character operation joins two fields. You define a source field and a macro operand. Concatenate trims any trailing blanks from the first field value.

- Concatenate (Fixed)

  This character operation joins two fields, but the engine programs include blank field values or trailing blanks as part of the macro resolution. You define a source field and a macro operand for this special operation.

- Substring

  This character operation returns a value that is only part of a field. Reference the start position field and the macro field length to define the part of a field to resolve and the length of the resolved value. For example, a brand code is embedded in positions 5 and 6 of the product name, and the product's field size is 15 characters. Define the start position as 6 and the macro length as 2.

Note: For numeric and concatenation operations, if you perform an operation with a Process Data Structure (PDS) field and a file field, you must define the file field as the source field and the PDS field as the operand macro.

Special Operations

Special operations include the following types:

- Numeric fields with a value of less than zero

  The engine programs return a value if the defined source field has a resolved value that is less than zero. The engine programs then multiply the value by -1.

- Numeric fields with a value of greater than zero

  The engine programs return a value if the defined source field has a resolved value that is greater than zero.

  Select special operation 1 or 2 when a field's value determines that it is a debit or credit amount. For instance, a Purchase Price Variance can result in either a positive or negative amount. When the value is less than zero, you can post the Purchase Price Variance as a positive credit amount. When the value is greater than zero, you can post the amount as a positive debit amount.

- Date in user-defined format

Select the date special operation to populate a reference field or an analysis field with a date. The engine programs return the date in the format specified in the system parameters. Date fields are stored in the YYYYMMDD format.

Do not select the date special operation for date fields.

Notes

Chapter 2 Create a Configurable Macro

2

This chapter describes the requirements, setup instructions, and the steps to create configurable macros. For additional information about Advanced Transaction Processing (ATP), refer to the *Infor LX ATP Configuration Guide*.

The chapter consists of the following topics:

Setup Considerations

Review the following procedures before you set up your own configurable macro processes. To expedite the setup process, use Infor ERP LX Configurable Enterprise Accounting naming standards and verify that the proper records exist for each macro.

Naming Standards

CEA uses specific naming standards for predefined macros. A CEA predefined macro is named according to the field name the macro represents. For example, macro RAMT represents the original amount (RAMT) field from the Accounts Receivable Detail (RAR) file.

CEA predefined macros for non-persistent values and calculated values also follow a naming standard. Non-persistent values are those not stored in the database. A macro is named for the five- or six-character field name that the macro is based on, plus a four-character abbreviated extension. For example, the macro for the Accounts Receivable Account Number is CI01TPARAC. CI01TP represents the *Customer Type* field from the Customer Invoice Process Data Structure, and ARAC represents Accounts Receivable (AR) Account (AC).

Infor ERP LX delivers predefined macros in the Available Macro (GAM) file as part of the priming data. The macros must have unique names. To avoid problems with duplicate records in the file or with an overlay of data, Infor recommends that you use a unique name for macros. For example, use your company number for the first two characters of a macro.

Macro Validation

A macro can belong to a particular subsystem, such as Vendor Invoice. A shared macro belongs to various subsystems. A shared macro is not valid for all subsystems. See the *Infor LX ATP Configuration Guide* for information about the valid macros available for each subsystem.

The Macro Cross Reference (GXM) file ensures that a specified macro is valid for the subsystem you process. For each file and field combination, the GXM file contains a record that indicates each valid subsystem origin.

For example, the macro for the Liability Profit Center from Vendor Type (VTLPC) is defined in the GAM file as shared. That is, more than one subsystem origin can use this macro. The GXM file then limits which subsystem origins are valid for VTLPC. Macro VTLPC is valid for vendor processes in several subsystems: Vendor Invoicing, Vendor Payment, Vendor Draft, and A/P Revaluation.

File	Field	Subsystem Origin
AVT	VTLPC	Vendor Invoice
AVT	VTLPC	Vendor Payment
AVT	VTLPC	Vendor Drafts
AVT	VTLPC	A/P Revaluation

The CEA Model application validates the entered macros against the GXM file. The combination of the file and field defined in the macro and the subsystem origin from the model must exist on the GXM file. The model application does not allow you to use the macro VTLPC if you create a model for Customer Invoice Processing. However, you can use the macro VTLPC if you create models for Vendor Invoicing or Vendor Payments.

Infor ERP LX supplies the GXM file as part of the priming date. This file contains all the Infor ERP LX files supported by Advanced Transaction Processing.

Creating Configurable Macros

You can create new macros in the Infor ERP LX Configurable Enterprise Financials CEA107.

On the Macro Definition window, you define the source file and the field in which you perform an arithmetic or special operation. For example, you can create a macro to accrue sales commission based on revenue. Your source file and field are the Invoice Line History (SIL) file and the G/L revenue (ILREV) field.

Select Functions to access the Macro Functions window, on which you define the arithmetic, character, or special operation to process against the defined source field. In the previous example of accrued sales commission, you enter an arithmetic operation of multiply (*) and an operand value for the percentage, such as 0.05 for five percent.

Defining the Macro

You define the macro on the Macro Definition window. Follow these steps.

1. Select Configurable Enterprise Financials..
2. Select CEA107 Macro Definition screen. You see the List Macros screen.
3. You cannot revise predefined macros. To define a new macro, use action 1=Create and enter the name of the new macros. Press Enter to display the Macro Definition screen.

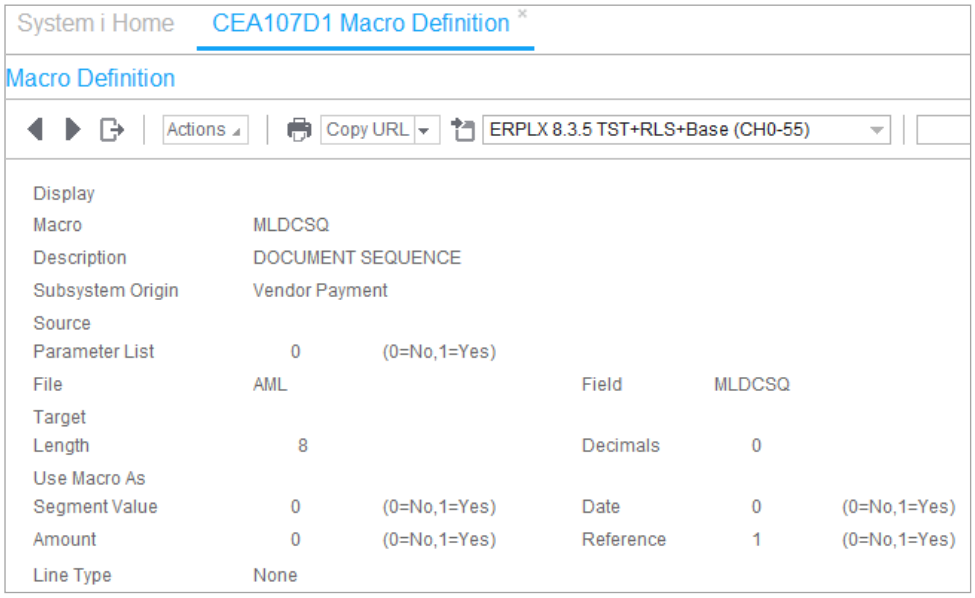

Figure 2-1: Macro Definition Window

4 Make entries in the appropriate fields:

Macro

Enter the user-defined macro name. Refer to the *Setup Considerations* section for information about CEA naming standards.

Description

Enter a description of the macro.

Subsystem Origin

Enter the subsystem origin that uses this macro. Select **Shared** if more than one subsystem process uses this macro. The following table lists subsystem origins:

Subsystem Origin	Infor ERP LX Programs
Batch Transactions	▪ CLD501 Process Transaction Data
Cartera	▪ Various programs
Customer Invoice	▪ BIL500 Invoice Release

Subsystem Origin	Infor ERP LX Programs
Customer Payment	▪ ACR500 Accounts Receivable Cash and Memo Posting ▪ ACR300 Customer Inquiry ▪ ARP655 ARP Payment Transactions ▪ CDM655 CDM Write Off ▪ ARP730 ARP Change Payment Transactions
Customer Draft	▪ CSH500B1 Vendor Drafts
Inventory Processing	▪ INV920 Inventory Transactions Post to General Ledger
Promotion Processing	▪ PRO130 Promotion Tracking
Revaluation Receivables	▪ MLT911B Accounts Receivable Revaluation
Revaluation Payables	▪ MLT921B Accounts Payable Revaluation
Vendor Invoice	▪ ACP500 Invoice Entry ▪ ACP525 Recurring Payables Post
Vendor Payment	▪ ACP650 Make Payments ▪ ACP700 Manual Payments
Vendor Draft	▪ CSH500B2 Customer Drafts
Labor Ticket	▪ CST910B Labor Ticket Journal Post
Payroll Processing	▪ PYGMEGL Payroll General Ledger Close

The information that you enter in the next three fields defines the source. The function defined in the Macro Function window uses this source. ATP must support the source file and field. Refer to the *Setup Considerations* section for guidelines regarding the GXM file.

Source

Parameter List

Enter a value: 0 = No or 1 = Yes

File

Enter the source file from which to retrieve the field.

Field

The name you selected for the macro automatically appears in the field name.

Target

Length

For non-configured macros, enter the length of the entered field. This option refers to the total length of the macro if the macro is one of the following types:

- A regular macro
- The result of an arithmetic operation
- The result of a special operation
- A substring of a field

If the macro is a result of a concatenation, the length is the number of spaces between the two values. This field must be blank if the defined macro is a result of a concatenation - fixed operation.

Decimals

Enter the number of decimals, if applicable.

Use Macro As

Segment Value

Select this option to indicate that the macro returns a value used as a whole or partial journal entry account string. Enter a value: 0 = No or 1 = Yes

Date

Select this option to indicate that the macro returns a value used in a Date field. Enter a value: 0 = No or 1 = Yes

Amount

Select this option to indicate that the macro returns a debit or credit value used in an amount field. Amount macros can also be used in Statistic fields. This option is valid only for numeric fields. Enter a value: 0 = No or 1 = Yes

Reference

Select this option to indicate that the macro returns a value used in a reference field. Enter a value: 0 = No or 1 = Yes

Line Type

Enter the line type, if applicable. This option contains a value only if the following conditions are met:

- You select the Use Macro as Amount option
- The Subsystem Origin is Vendor Invoice, Batch Transactions, or Shared
- If the Subsystem Origin is Vendor Invoice and the macro refers to amounts from the ASD file, specify a valid line type. Choose one of the following:

Line Type Description	Line Type
Distribution Summary 1	01
Distribution Summary 2	02
Distribution Summary 3	03
Distribution Summary 4	04
Distribution Summary 5	05
Additional Expense	06
Current Tax	07
Purchase Order Reversal	08
Inventory Receipt Reversal	09
Commodity Receipt Reversal	10
Inventory Item Purchase Price Variance	11
Commodity Purchase Price Variance	12
Discount Available	13
Discount Taken	14
Inventory Receipt	15
Commodity Receipt	16
Unmatched Receipts 1	17
Unmatched Receipts 2	18
Unmatched Receipts 3	19
Unmatched Receipts 4	20
Unmatched Receipts 5	21
Accounts Payable	22
Nondeductible Tax	23

Line Type Description	Line Type
Offset Nondeductible Tax	24
Inventory	25
Commodity	26
Special Charge	27
Accrued Liability	28
Tax Paid Adjustment	29
Charge Exposure	48
Charge Applied	49

Defining the Macro Functions

After you define the source file and field on the Macro Definition window, you define the macro functions on the Macro Functions window. You define the arithmetic, character, or special operation to process over the defined source field.

The system uses the following calculation for model resolution:

Returned value = defined source field (operation) operand

Proceed as follows to define the macro functions.

1 On the Macro Definition window, select Functions. The system displays the Macro Functions window. This window displays Source: File, Field, and Attribute. The *Attribute* field indicates whether the Field is numeric or alphanumeric.

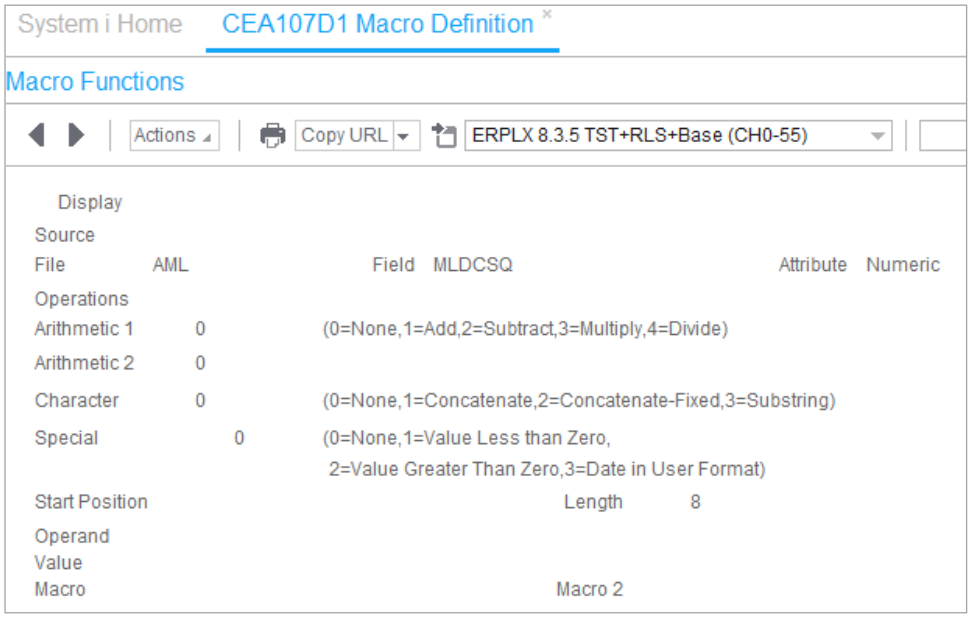

Figure 2-2: Macro Functions Window

2 Make entries in the following fields to determine the operation that processes the defined source field. Select an operation to define the type of operation the CEA engines perform on the defined source field.

Operations

Arithmetic

This operation is valid for numeric defined macros. The system performs the selected operation over the defined source field and the value or macro entered in the operand box. You can select up to two operations: *Arithmetic 1* and *Arithmetic 2*.

Value	Description
0	No operation to perform.
1	Add the defined source field with the entered operand value or macro.
2	Subtract the entered operand value or macro from the defined source field.

Value	Description
3	Multiply the defined source field with the entered operand value or macro.
4	Divide the defined source field by the entered operand value or macro.

Character

This operation is valid for numeric and alphanumeric defined macros. Use this option for concatenation and substring special operations. If you concatenate two fields, enter a value in the macro operand field. Choose from the following values:

Value	Description
0	No operation to perform.
1	*Concatenate* defines the source field with the macro operand. The concatenation process drops trailing blanks from the source field. Use this value with field size to place a fixed number of spaces between the two fields.
2	*Concatenate-Fixed* defines the source field with the macro operand. The concatenation-fixed process retains trailing blanks from the source field. Field length is not available for Concatenate-Fixed.
3	*Substring* uses the start position and field size to select a portion of the defined source field. In the start position, enter the start position from which to retrieve a value. In the field size, enter the number of characters to retrieve.

Special

This operation is valid for numeric defined macros. Use this operation type for user date formats and to calculate absolute values for debit and credit resolution. Select the specific special process from one of the following values:

Value	Description
0	No special operation
1	*Value Less than Zero* retrieves the value if it is less than zero.
2	*Value Greater than Zero* retrieves the value only if it is greater than zero. The system then multiplies this value by negative 1.
3	*Date in User Format* formats the date as specified in the system parameters file.

Start Position

If you select substring as the character process, enter the start position to retrieve part of a field for the operation. For example, enter **6** to retrieve the last four values from a ten-character field.

Length

This field displays the value from the Macro Definition window. Make an entry only if you select concatenate or substring for a character operation.

If you concatenate two fields, enter the number of spaces required between the two fields.

If you select a substring, enter the number of characters to retrieve from the field.

Operand

The following two fields define the operand. There are two types of operands: a numeric constant value or a macro. For arithmetic operations, enter a value or a macro. For special operations, enter a macro. The system does not allow imbedded configurable macros; therefore, the operand macro must be a regular macro.

The macro you create and the operand macro must belong to the same subsystem origin. The following table shows valid combinations:

New Macro	Operand Macro	GXM Record - Operand Macro
Vendor Payments	Vendor Payment	Vendor Payment
Vendor Payments	Shared	Vendor Payment

New Macro	Operand Macro	GXM Record - Operand Macro
Shared	Shared	Any valid subsystem origin for the operand
Shared	Vendor Payment	Vendor Payment

The following table shows invalid combinations:

New Macro	Operand Macro	GXM Record - Operand Macro
Vendor Payments	Customer Payment	Customer Payment
Vendor Payments	Shared	Customer Payment only

Notes

Chapter 3 Configurable Macro Examples

3

This chapter provides examples that demonstrate how to configure macros for arithmetic and special operations.

The chapter consists of the following topics:

Arithmetic Operations

This section provides examples for arithmetic operations.

Source Field and Operand Value

In this example, you accrue sales commission equal to five percent of the gross revenue. You create macro ILREVCOM5 to record a fixed percentage of sales for each salesperson's commission.

To perform this calculation, multiply the predefined macro ILREV by five percent (0.05). Macro ILREV retrieves the G/L revenue from the Invoice Line History (SIL) file.

The following equation illustrates the calculation for macro ILREVCOM5:

ILREVCOM5 = SIL.ILREV * 0.05

Proceed as follows to create macro ILREVCOM5.

1. Select Macro Definition from the Infor ERP LX Configurable Enterprise Financial, CEA 107.
2. On the List Macros screen, enter **1** for create and the name of the new macro.
3. Make entries on the Macro Definition screen to define the name, description, source file and field, the length of the new macro, and how the macro is used.

   Macro

   Enter the macro name, **ILREVCOM5**.

   Description

   Enter a description, for example, **Commission – Sales**.

   File

   Enter the source file, **SIL**.

Field

Enter the source field, **ILREV**.

Length

Enter the length, **15**.

Decimals

Enter the number of decimals for the length, **2**.

Amount

Under Use Macro As, enter **1** for Yes in the *Amount* field to define the macro as an amount.

4 Select Functions to access the Macro Function screen.

5 Select options on the Macro Function screen to define the operations and the operand and to define the length for macro ILREVCOM5.

Arithmetic

Enter **3** for an arithmetic operation.

Character

Enter **0** for no character operation.

Special

Enter **0** for no special operation.

Value

Enter .**05** for the operand value.

Macro

Leave this field blank.

Macro Length

Leave this field blank.

Macro Decimal

Leave this field blank.

Account

Enter **Sales Commissions.**

Use macro ILREVCOM5 in the Credit Macro field on any Customer Invoice Model with the following expected results.

The following example shows the results for macro ILREVCOM5:

With a value of 150.00 in ILREV, the engine programs resolve macro ILREVCOM5 as 7.50.

```
ILREVCOM5 = 150 * 0.05 = 7.5.
```

Source Field and Macro

In this example, you multiply quantity by net price to record the revenue net of price discounts in your company books. You create a macro, ILQTYPRCE, to record the revenue net of price discounts.

To perform this calculation, multiply the value that the predefined macro ILQTY retrieves by the value that the predefined macro ILNET retrieves. Macros ILQTY and ILNET retrieve the quantity sold and net price from the Invoice Line History (SIL) file, respectively.

The following equation illustrates the calculation for macro ILQTYPRCE:

ILQTYNPRCE = ILQTY * ILNET

The field length of a configurable macro and the field length of the source values can be different. In this example, ILQTYPRCE is defined as 15,2. Fifteen is the total number of positions and two is the number of positions after the decimal place. This differs from the field length of the source field and operand macro, which have lengths of 11,3 and 14,4 respectively.

Proceed as follows to create macro ILQTYPRCE.

1. Select Macro Definition from the Infor ERP LX Configurable Enterprise Financials, CEA107.
2. On the List Macros screen, enter **1** for create and the name of the new macro.
3. In the Macro Definition screen define the description, source file and field, the length of the new macro, and how the macro is used.

Macro

Enter the name for the macro, **ILQTYNPRCE**.

Description

Enter a description for the macro, for example, **Net Sales Revenue**.

File

Enter the source file, **SIL**.

Field

Enter the source field, **ILQTY**.

Length

Enter the length, **15**.

Decimals

Enter the number of decimals for the length, **2**.

Amount

Under Use Macro As, enter **1** in the *Amount* field to define the macro as an amount.

4 Select Functions to access the Macro Function screen.

5 Select options on the Macro Function screen to define the operations and the operand and to define the length for macro ILQTYPRCE.

Arithmetic

Enter **3** to multiply operation.

Character

Enter **0** for no character operation.

Special

Enter **0** for no special operation.

Value

Leave this field blank.

Macro

Enter **ILNET**.

Macro Length

Enter **15** for the length of the macro.

Macro Decimal

Enter **2** for the number of decimals for the macro length.

Make an entry in the journal model line as follows for macro ILQTYPRCE.

Account

Enter **Net Sales Revenue**.

Use ILQTYPRCE in the Credit Macro field on any Customer Invoice Model with the following expected results. The engine programs resolve macro ILREVCOM5 as 1054.71, when the value in ILQTY is 123.456 and the value in ILNET is 8.5432.

```
ILQTYNPRCE = 123.456 * 8.5432 = 1054.7092992
```

Special Operations

This section provides examples for special operations.

Credit and Debit

In this example, the Purchase Price Variance (PPV) is a positive credit if the value resolves as a negative, and is a positive debit if the value resolves as a positive. You create macro SDPACS11CR to book PPV as a credit if the amount is negative, and macro SDPACS11DR to book PPV as a debit if the amount is positive.

SDPACS11CR resolves when the value in the amount (SDPACS) field for line type 11 is negative. SDPACS11DR resolves when the value in the SDPACS field for line type 11 is positive. This amount (SDPACS) field is in the Invoice (ASD) file.

You create two macros. One macro resolves values less than zero; this is special process 1. Another macro resolves values greater than zero; this is special process 2. You enter each macro on the same journal model line.

Proceed as follows to create macros SDPACS11CR and SDPACS11DR. Create the credit macro and then repeat the steps to create the debit macro.

1. Select Macro Definition from the Infor ERP LX Configurable Enterprise Financial, CEA107.

2. On the List Macros screen, enter **1** for create and the name of the new macro.

3. When the Macro Definition screen appears, define the description, source file and field, the length of the new macro, and define how the macro is used.

   Macro

   Enter **SDPACS11CR** for the credit macro. Enter **SDPACS11DR** for the debit macro.

Description

Enter a description for the macro. For example, enter **Purchase Price Variance – Credit** for the credit macro or **Purchase Price Variance – Debit** for the debit macro.

File

Enter the source file, **ASD**. This is the file for both the credit and debit macros.

Field

Enter the source field **SDPACS**. This is the field for both the credit and debit macros.

Length

Enter the length, **15**. This is the length for both the credit and debit macros.

Decimals

Enter the number of decimals for the length, **2**. This is the number of decimals for both the credit and debit macros.

Amount

Under Use Macro As, enter **1** in the *Amount* field to define the macro as an amount.

Line Type

Enter **11** for the line type. Use this value for both the credit and debit macros.

4 Select Functions to display the Macro Function screen.

5 Select options on the Macro Function screen to define the operations and the operand and to define the length for macros SDPACS11CR and SDPACS11DR.

Arithmetic

Enter **0** for no arithmetic operation.

Character

Enter **0** for no character operation.

Special

For macro SDPACS11CR, select **Value less than zero** for a special operation. For macro SDPACS11DR, select **Value greater than zero** for a special operation.

Value

Leave this field blank.

Macro

Leave this field blank.

Macro Length

Enter **15** for the length of the macro.

Macro Decimal

Enter **2** for the number of decimals for the macro length.

Make an entry in the journal model line as follows.

Account

Enter **Purchase Price Variance** for both the credit and debit macros.

Use macros SDPACS11DR and SDPACS11CR in the Debit and Credit Macro fields on any Vendor Invoice Model with the following expected results.

- When the value in SDPACS for line type 11 (Purchase Price Variance) is -50.00, the engine program resolves macro SDPACS11CR. It multiplies -50.00 by -1 resulting in 50.00. The journal resolves with 50.00 as a credit amount.
- When the value in SDPACS for line type 11 (Purchase Price Variance) is 50.00, the engine program resolves macro SDPACS11CR. It multiplies 50.00 by 1 resulting in 50.00. The journal resolves with 50.00 as a debit amount.

User Date Format

This example demonstrates how to format dates displayed as DD/MM/YY in the Journal Inquiry, and Account Inquiry applications. It is the format in your ERP LX System Parameters. You can create external reports to extract the

data from the date and reference fields. The dates on the report follow a standard format.

Create macro ARRCDTFORM. Macro ARRCDT retrieves the value in the recognition date field from the Accounts Receivable Detail (RAR) file.

Infor ERP LX automatically formats dates in the date reference and date analysis fields. This date format option applies only if you use a date in a non-date reference or analysis field.

Proceed as follows to create macro ARRCDTFORM.

1. Select Macro Definition from the Infor ERP LX Configurable Enterprise Financials, CEA107.

2. On the List Macros screen, enter **1** for create and the name of the new macro.

3. On the Macro Definition screen define the name, description, source file and field, the length of the new macro, and how the macro is used.

   Macro

   Enter the name for the macro, **ARRCDTFORM**.

   Description

   Enter a description for the macro, for example, **Exchange Rate Date**.

   File

   Enter the source file, **RAR**.

   Field

   Enter the source field, **ARRCDT**.

   Length

   Enter the length, **8**.

   Decimals

   Leave this field blank.

   Reference

   Under Use Macro As, select **1** in the *Reference* field to define the macro as a reference.

4 Select Functions to access the Macro Function screen.

5 Select options on the Macro Function screen to define the operations and the operand and to define the length for macro ARRCDTFORM.

Arithmetic

Enter **0** for no arithmetic operation.

Character

Enter **0** for no character operation.

Special

Enter **Date in User Format** for a character operation.

Value

Leave this field blank.

Macro

Leave this field blank.

Macro Length

Enter **8** for the length of the macro.

Macro Decimal

Leave this field blank.

The following table illustrates the result of macro ARRCDTFORM.

If the value in ARRCDT is 20053110, the engine programs format the date as follows.

System Parameter Date Format	Date Display
1 - YYMMDD	05/10/31
2 - MMDDYY	10/31/05
3 - DDMMYY	31/10/05

Concatenation, Drop Trailing Blanks

In this example, you book revenue based on the combination of customer type and group sales. You create macro SICTYPGS1 to combine customer type and group sales.

Concatenate the predefined macros SICTYP and CREF01 to create macro SICTYPGS1. Macro SICTYP retrieves the customer type from the Invoice History (SIH) file. Macro CREF01 retrieves the Group Sales Analysis Field 01 from the Customer Master (RCM) file.

Proceed as follows to create macro SICTYPGS1.

1. Enter Macro Definition from the Infor ERP LX Configurable Enterprise Financials, CEA107.

2. On the List Macros screen, enter **1** for create and the name of the new macro.

3. On the Macro Definition screen define the description, source file and field, the length of the new macro, and define how the macro is used.

   Macro

   Enter the name of the macro, **SICTYPGS1**.

   Description

   Enter a description for the macro, for example, **Customer Type/Group Sales 1**.

   File

   Enter the source file, **SIH**.

   Field

   Enter the source field, **SICTYP**.

   Length

   Leave this field blank.

   Decimals

   Leave this field blank.

Segment Value

Under Use Macro As, select the *Segment Value* field to define the macro as a segment.

Reference

Under Use Macro As, enter **1** to the *Reference* field to define the macro as a reference.

4 Select Functions to access the Macro Function screen.

5 Select options on the Macro Function screen to define the operations and the operand and to define the length for macro SICTYPGS1.

Arithmetic

Enter **0** for no arithmetic operation.

Character

Enter 1 for a concatenate operation.

Special

Enter **0** for no special operation.

Value

Leave this field blank.

Macro

Enter **CREF01**.

Macro Length

Leave this field blank.

Macro Decimal

Leave this field blank.

Length

Enter a field length of 0 to join two fields with no spaces between them. To insert spaces between the two fields, enter the number of spaces in the field length.

The following table illustrates how the engine programs resolve macro SICTYPGS1, and how the field length is used. A hyphen (-) represents a space.

SICTYP	CREFO1	Field Length	SICTYPGS1
USA-	D101	0	USAD101
DIST	D101	0	DISTD101
----	D101	0	D101
USA-	D101	2	USA--D101
DIST	D101	2	DIST--D101
----	D101	2	D101

Concatenation, Retain Trailing Blanks

This example demonstrates how to combine the original document prefix and the original document number for use in the document reference field. You extract data from the document reference field plan to create external reports. You align the information in the field, to retain the trailing blanks for proper alignment. Create macro ARODPXDOC to combine the original document prefix and the original document number.

To perform this function, concatenate the predefined macros ARODPX and RINVC. Macros ARODPX and RINVC retrieve the original document prefix and original document number from the Accounts Receivable Detail (RAR) file, respectively.

Proceed as follows to create macro ARODPXDOC.

1. Select Macro Definition from the Infor ERP LX Configurable Enterprise Financials, CEA107.

2. On the List Macros screen, enter 1 for create and the name of the new macro.

3. On the Macro Definition screen define the description, source file and field, the length of the new macro, and define how the macro is used.

   Macro

   Enter a name for the macro, **ARODPXDOC**.

Description

Enter a description for the macro, for example, **Original prefix/Doc Number**.

File

Enter the source file, **RAR**.

Field

Enter the source field, **ARODPX**.

Length

Leave this field blank.

Decimals

Leave this field blank.

Reference

Under Use Macro As, enter **1** to the *Reference* field to define the macro as a reference.

4 Select Functions to access the Macro Function screen.

5 Select options on the Macro Function screen to define the operations and the operand and to define the length for macro ARODPXDOC.

Arithmetic

Enter **0** for no arithmetic operation.

Character

Enter **2** for the **Concatenate-Fixed** character operation.

Special

Enter **0** for no special operation.

Value

Leave this field blank.

Macro

Enter **RINVC**.

Macro Length

Leave this field blank.

Macro Decimal

Leave this field blank.

The following table illustrates how the engine programs resolve macro ARODPXDOC. A hyphen (-) represents a space.

ARODPX	RINVC	Field Length	ARODPXDOC
DA	12345	0	DA00012345
--	12345	0	--00012345

Substring

In this example, you extract the brand code embedded in the first two characters of your item number to use as a segment value in your journal model. You create macro ILPRODBRND to retrieve the first two characters from the macro ILPROD (Product Number). ILPROD retrieves the product number from the Invoice Line History (SIL) field.

Proceed as follows to create macro ILPRODBRND.

1. Select Macro Definition from the Infor ERP LX Configurable Enterprise Financials, CEA107.
2. On the List Macros screen, enter **1** for create and the name of the new macro.
3. On the Macro Definition screen define the description, source file and field, the length of the new macro, and define how the macro is used.

   Macro

   Enter the name for the macro, **ILPRODBRND**.

   Description

   Enter a description for the macro, for example, **Item Brand Code**.

   File

   Enter the source file, **SIL**.

Field

Enter the source field, **ILPROD**.

Length

Enter **2** for the length of the macro.

Decimals

Leave this field blank.

Segment Value

Under Use Macro As, **1** for Yes to the *Segment Value* field to define the macro as a segment.

Reference

Under Use Macro As, enter **1** to the *Reference* field to define the macro as a reference.

4 Select Functions to access the Macro Function screen.

5 Select options on the Macro Function screen to define the operations and the operand and to define the length for macro ILPRODBRND.

Arithmetic

Enter **0** for no arithmetic operation.

Character

Enter **3** for Substring for a character operation.

Special

Enter **0** for no special operation.

Start Position

Enter **1** to indicate the start position for value retrieval.

Value

Leave this field blank.

Macro

Leave this field blank.

Macro Length

Enter **2** for the macro length.

Macro Decimal

Leave this field blank.

The following table illustrates how the engine resolves macro ILPRODBRND, and how the start position is used.

ILPROD	Start Position	Field Length	ILPRODBRND
01ITEMABXY	1	2	01
01ITEMABXY	7	2	AB
01ITEMABXY	9	2	XY

Appendix A Predefined Configurable Macros

A

The following tables list CEA predefined configurable macros. See the *ATP Configuration Guide* for information about the valid macros available for each subsystem.

Customer Invoice Process Data Structure

Macro and Description	Macro Field	Line	Seg	Amt	Ref
CI01BBA Bill Back Debit	CI01BB			X	X
CI01BBB Bill Back Credit	CI01BB			X	X

Invoice Line History

Macro and Description	Macro Field	Line	Seg	Amt	Ref
ILREVRDR Revenue Regular Line Debit	ILREVR			X	X
ILREVRCR Revenue Regular Line Credit	ILREVR			X	X
ILREVSDR Revenue Special Line Debit	ILREVS			X	X
ILREVSCR Revenue Special Line Credit	ILREVS			X	X

AML Payment Detail File

Macro and Description	Macro Field	Line Type	Seg	Amt	Ref
AMLDAMA Discount Taken Amount Debit	AMLDAM			X	X
AMLDAMB Discount Taken Amount Credit	AMLDAM			X	X

ASD Invoice Detail File

Macro and Description	Macro Field	Line Type	Seg	Amt	Ref
SDPACS01A Auto Dist Exp. Line 1 Debit	SDPACS	01		X	X
SDPACS01B Auto Dist Exp Line 1 Credit	SDPACS	01		X	X
SDPACS02A Auto Dist Exp Line 2 Debit	SDPACS	02		X	X
SDPACS02B Auto Dist Exp Line 2 Credit	SDPACS	02		X	X
SDPACS03A Auto Dist Exp Line 3 Debit	SDPACS	03		X	X
SDPACS03B Auto Dist Exp Line 3 Credit	SDPACS	03		X	X
SDPACS04A Auto Dist Exp Line 4 Debit	SDPACS	04		X	X
SDPACS04B Auto Dist Exp Line 4 Credit	SDPACS	04		X	X
SDPACS05A Vendor Expense Line 5 Debit	SDPACS	05		X	X
SDPACS05B Vendor Expense Line 5 Credit	SDPACS	05		X	X
SDPACS06A Additional Expense Debit	SDPACS	06		X	X

Macro and Description	Macro Field	Line Type	Seg	Amt	Ref
SDPACS06B Additional Expense Credit	SDPACS	06		X	X
SDPACS07A Expense Line Tax Amount Debit	SDPACS	07		X	X
SDPACS07B Expense Line Tax Amount Credit	SDPACS	07		X	X
SDPACS11A Item PPV Line Amount Debit	SDPACS	11		X	X
SDPACS11B Item PPV Line Amount Credit	SDPACS	11		X	X
SDPACS12A Commodity PPV Debit	SDPACS	12		X	X
SDPACS12B Commodity PPV Credit	SDPACS	12		X	X
SDPACS13A Discount Available Debit	SDPACS	13		X	X
SDPACS13B Discount Available Credit	SDPACS	13		X	X
SDPACS14A Discount Taken Amount Debit	SDPACS	14		X	X
SDPACS14B Discount Taken Amount Credit	SDPACS	14		X	X
SDPACS17A Unmatched Receipts Dist 1 Debit	SDPACS	17		X	X
SDPACS17B Unmatched Receipts Dist 1 Credit	SDPACS	17		X	X
SDPACS18A Unmatched Receipts Dist 2 Debit	SDPACS	18		X	X
SDPACS18B Unmatched Receipts Dist 2 Credit	SDPACS	18		X	X
SDPACS19A Unmatched Receipts Dist 3 Debit	SDPACS	19		X	X
SDPACS19B Unmatched Receipts Dist 3 Credit	SDPACS	19		X	X

Macro and Description	Macro Field	Line Type	Seg	Amt	Ref
SDPACS20A Unmatched Receipts Dist 4 Debit	SDPACS	20		X	X
SDPACS20B Unmatched Receipts Dist 4 Credit	SDPACS	20		X	X
SDPACS21A Unmatched Receipts Dist 5 Debit	SDPACS	21		X	X
SDPACS21B Unmatched Receipts Dist 5 Credit	SDPACS	21		X	X
SDPACS22A Accounts Payable Liability Debit	SDPACS	22		X	X
SDPACS22B Accounts Payable Liability Credit	SDPACS	22		X	X
SDPACS23A Exp. Line Non-deductible Tax Debit	SDPACS	23		X	X
SDPACS23B Exp. Line Non-deductible Tax Credit	SDPACS	23		X	X
SDPACS24A Offset Exp. Line Non-deductible Tax Amount Debit	SDPACS	24		X	X
SDPACS24B Offset Exp. Line Non-deductible Tax Amount Credit	SDPACS	24		X	X
SDPACS25A Item Accrued Liability Debit	SDPACS	25		X	X
SDPACS25B Item Accrued Liability Credit	SDPACS	25		X	X
SDPACS26A Commodity Debit	SDPACS	26		X	X
SDPACS26B Commodity Credit	SDPACS	26		X	X
SDPACS27A Special Charges Debit	SDPACS	27		X	X
SDPACS27B Special Charges Credit	SDPACS	27		X	X
SDPACS28A Item Inventory Amount Debit	SDPACS	28		X	X

Macro and Description	Macro Field	Line Type	Seg	Amt	Ref
SDPACS28B Item Inventory Amount Credit	SDPACS	28		X	X
SDPACS48A Charge Exposure Debit	SDPACS	48		X	X
SDPACS48B Charge Exposure Credit	SDPACS	48		X	X
SDPACS49A Charge Applied Debit	SDPACS	49		X	X
SDPACS49B Charge Applied Credit	SDPACS	49		X	X
SDTXAMA Line Tax Amount Debit	SDTXAM			X	X
SDTXAMB Line Tax Amount Credit	SDTXAM			X	X

RTP Tax Amount Paid

Macro and Description	Macro Field	Line Type	Seg	Amt	Ref
RTPAMTTA Tax Amount Paid Debit	TPAMTT			X	X
RTPAMTTB Tax Amount Paid Credit	TPAMTT			X	X
RTPAMTTRBA Tax Amount Paid Debit	TPAMTTRB			X	X
RTPAMTTRBB Tax Amount Paid Credit	TPAMTTRB			X	X
RTPTRCDRB Tax Report Bypass/Rate Code	TPBFLG		X		X
RTPTRCDRBL Tax Liability Account	TPBFLG		X		
RTPTRCDRBS Paid Tax Suspense Account	TPBFLG		X		

PDT Promotion Tracking

Macro and Description	Macro Field	Line Type	Seg	Amt	Ref
DTBBDSA Split Bill Back Discount Debit	DTBBDS			X	X
DTBBDS Split Bill Back Discount Credit	DTBBDS			X	X
DTOIDSA Split Off Invoice Discount Debit	DTOIDS			X	X
DTOIDSB Split Off Invoice Discount Credit	DTOIDS			X	X

RTX Tax Amount Invoiced

Macro and Description	Macro Field	Line Type	Seg	Amt	Ref
RTXTRCDRB Tax Report Bypass/Rate Code	TXBFLG		X		X
RTXTRCDRBA Invoiced Tax Suspense Account	TXBFLG		X		X

SIH Invoice History

Macro and Description	Macro Field	Line Type	Seg	Amt	Ref
IHFCHGCR Financial Charge Credit	IHFCHG			X	X
IHFCHGDR Financial Charge Debit	IHFCHG			X	X

PYPCL Employee Check Ledger File

Macro and Description	Macro Field	Line Type	Seg	Amt	Ref
CLGROSA Payroll Gross Pay-Debit	CLGROS			X	X
CLGROSB Payroll Gross Pay-Credit	CLGROS			X	X
CLAMTA Payroll Amount Of Check-Debit	CLAMT			X	X
CLAMTB Payroll Amount Of Check-Credit	CLAMT			X	X

PYPIL Employee Income Ledger File

Macro and Description	Macro Field	Line Type	Seg	Amt	Ref
ILAMTA Payroll Amount – Debit	IHFCHG			X	X
ILAMTB Payroll Amount – Credit	IHFCHG			X	X

PYPDL Employee Deduction Ledger File

Macro and Description	Macro Field	Line Type	Seg	Amt	Ref
DLDAMTA Payroll Employee Ded - Debit	DLDAMT			X	X
DLDAMTB Payroll Employee Ded - Credit	DLDAMT			X	X
DLCAMTA Payroll Employer Ded – Debit	DLCAMT			X	X
DLCAMTB Payroll Employer Ded – Credit	DLCAMT			X	X

Notes