Infor XA Implementation Guide for Enterprise General Ledger for System i

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Publication Information

Release: Infor XA Release level 9.1

Publication date: September 5, 2014

Contents

About this guide

This guide provides information and instructions to set up Infor XA (XA) with Enterprise General for System i (EGLi). The instructions provide the setup steps in XA and EGLi that are specific to this implementation. This guide also provides information for IFM users about migrating data from XA to EGLi.

For the purpose of this document, note these terms:

- Infor10 ERP Discrete iEnterprise XA is referred to as XA.
- Batch Transaction Processing (BTP) is now the IDF External GL Transactions object.

Intended audience

The intended audiences for this guide are IT professionals, system administrators, and system analysts or business analysts who install and configure Infor Development Framework (IDF) and who implement integrations between XA and other Infor products.

Related documents

You can find the documents in the product documentation section of the Infor Xtreme Support portal, as described in "Contacting Infor" on page 8.

- *AM - Accounts Payable User's Guide - Release 9*
- *AM - Accounts Receivable User's Guide - Release 9*
- *Accounting Management Plus Concepts Guide - Release 9*
- *Accounting Management Plus User's Guide Release 9*
- *Customer Order Management User's Guide Release 9*
- *Customer Service Management Concepts Guide Release 9*
- *Enterprise General Ledger for System i Configurable Macro Guide*
- *International Financial Management User's Guide - Release 9*
- *Infor Enterprise General Ledger for System i Journal Upload Installation and Configuration Guide*

- *Inventory Management User's Guide - Release 9*
- *Manufacturing Performance Analysis User's Guide - Release 9*
- *Materials Management Concepts Guide - Release 9*
- *Order Based Production Management Concepts Guide - Release 9*
- *Production Control and Costing User's Guide - Release 9*
- *Production Monitoring and Control User's Guide - Release 9*
- *Repetitive Production Management User's Guide - Release 9*

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Chapter 1 Introduction

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Enterprise General for System i (EGLi) is an event-driven general ledger application that creates journal entries from XA transactions. EGLi uses the Advanced Transaction Processing (ATP) posting engine to enable configurable transaction processing. You can use the ATP posting engine to dynamically generate comprehensive journal entries from the XA subsystems, such as XA Production (OBPM or RBPM) and XA Materials Management (MM), without modifying the XA applications.

When you configure EGLi for use with XA, you can optionally define a set of prioritized rules that assign transactions created or generated in XA to the appropriate journal entries in EGLi. You maintain and post the journal entries in the EGLi objects. You can automatically post the journals to multiple books and ledgers.

EGLi is designed to integrate with Enterprise Financials (IFM) and Accounts Management (AMPlus). However, you are not required to have Enterprise Financials or AMPlus installed to send XA transactions to EGLi from Customer Service Management (CSM), MM, OBPM, or RBPM.

IFM users can automatically configure EGLi with XA data and transfer GL account balances from IFM to EGLi using XA migration objects. See “Setting up EGLi migration process” on page 27.

Features

EGLi provides these features:

Post transactions from subsystem activities

When XA subsystems and the general ledger are integrated, subsystem activities generate journal entries and use automated accounting decisions to post the journal entries to the general ledger. For example, you can enter a vendor invoice and automatically post the accounts payable and expense entries to the appropriate accounts without user intervention.

The financial event class rules defined within a financial event class determine the ledger and books that are updated with a subsystem transaction. Each financial event class rule specifies a particular ledger and book to update.

Parallel posting

In EGLi, events can be posted to multiple charts of accounts, ledgers, and books simultaneously. These examples show how you can take advantage of the flexibility provided by EGLi:

- Keep separate charts of accounts for IFRS and GAAP accounting
- Maintain financial activity in a region that is autonomous from other regions and from corporate headquarters
- Maintain books in multiple currencies
- Use flexible financial calendars
- Maintain separate books for corporate and business units
- Record taxes by country, state, region
- Track sales by posting to sales books

External transactions

You can receive transactions from third-party sources and use the External GL Transactions object to view and maintain the transactions. You can use the External GL Transactions object to:

- Add journal entries and post transaction data from third-party applications or other Infor products directly to the general ledger.
- Generate multiple entries across different chart of accounts, ledgers, and books within the ledger from one transaction line.
- Automatically post transaction amounts across different books using the designated exchange rate between the transaction currency and target book currency.
- Use validation to identify and correct errors within the transaction data.

Deferred posting

When you define subsystem rules, you can define the journal process as “Defer posting.” Use the Deferred GL Transactions object to post the transactions that have a “Defer posting” subsystem rule. You can use this object to restart transactions that did not complete the posting process.

Ledger account rules

Create rules that define how segment values are combined to form an account for a specific chart of accounts. The rules apply to a particular chart of accounts but can optionally apply to a ledger. You can, for example, define a reject rule that prevents ATP from posting a particular account to a chart of accounts. You can apply a start date to the rule so that you can set up accounts but delay posting until the effective date.

Currency and exchange rates

EGLi uses ERP common objects Currencies and Exchange Rate Sets to process accounting transactions in multiple currencies. You can update books with all transactions or only transactions in which the transaction currency matches the book currency. For example, if you enter transactions in euros and US dollars for a ledger, you can maintain three books: a book for each transaction currency (US dollars and euro) and a reporting book that records both US dollars and euros in the book's currency.

Upload journal entries from a spreadsheet

If you prefer to create manual journal entries in a Microsoft® Excel® spreadsheet, you can upload the journals to EGLi. Run the journal upload installation on your PC. The installation adds an Add-Ins tab to Excel spreadsheets. The Add-Ins tab provides a template for a journal entry and options that allow you to connect to the server where EGLi is installed. See "EGLi journal upload" on page 24.

Terminology

Sometimes XA and EGLi use different terms for the same business function. This table shows the equivalent terms for those business functions:

XA term	EGLi term	Comment
Unit	Non-natural account segment	Units can be concatenated with Natures to form the EGLi account numbers
Nature	Natural account segment	
Period structure	Financial calendars	EGLi requires a financial calendar for each fiscal year. Period structures are not required in IFM

Chapter 2 Setting up XA for EGLi

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This chapter discusses the steps you must complete to set up XA for use with EGLi.

Install requirements

This table shows the software requirements that must be installed and configured for standard operation:

Application	Level	Comments
XA 9.1 Client	Client fix build level 02.09.00.03.27 or higher	Must be applied to the global environment in addition to the business environment in Link-Manager.
XA 9.1 Server	Required: • XA PCM SH15955 / SH15958 (PTF 03704)	See SH15954 for SBCS SH15957 for DBCS
	Strongly recommended: • SH51946/04040	EGLi enhancements and corrections
	Options: • SH15970 • SH15988	EGLi Journal Upload Installer IFM to EGLi Migration Tool (Note: SH15988 includes 10x enhancements)
XA help	Help build level 02.09.00.03.13 or higher	
Enterprise General Ledger for System I (EGLi)		EGLi must be installed for the XA environment in Link Manager. See “Activating EGLi in XA” on page 14.

Additional requirements

To use EGLi, an XA environment must meet these requirements:

- You must have the appropriate licenses for EGLi and XA.
- You must set the Activate currency and exchange rate objects option in the Enterprise Financials Application Settings object to Yes before EGLi is installed in Link Manager. Note that this option cannot be changed after this option is set to Yes. This option disables currency and exchange rate maintenance in the green screen application and IDF level 1. This option enables currency and exchange rate maintenance in Power-Link, Net-Link, and System-Link. When this option is enabled, the CAS EXRATE file is no longer used to store and retrieve exchange rates. The XA Exchange Rate object is used instead.
- If you use IFM and intend to use the migration tools, we recommend that you install EGLi into a test environment and then run the migration programs. See “Setting up EGLi migration process” on page 27.

Note: You are not required to have Enterprise Financials or AMPlus installed to send XA transactions to EGLi from CSM, MM, OBPM, or RBPM.

Setting up XA

Perform these tasks to configure EGLi to generate GL journal entries for XA transactions.

Activating EGLi in XA

Enterprise General Ledger must be installed for the XA environment.

To install Enterprise General Ledger for an environment:

1. In Link Manager, select the XA environment.
2. Select the Applications card for that environment.
3. Select Enterprise General Ledger and click **Maintain > Change**. In the Change Installed Applications dialog box, select Installed.
4. Click **Update.**

Activating the General Ledger Interface

To enable XA to send sales, inventory, and production general ledger transactions to EGLi; activate the General Ledger Interface function in XA. Activate the interface for the CSM, MM, OBPM, and RBPM applications.

You are not required to activate the General Ledger Interface to send transactions from Finance.

Perform these steps for each application from which you intend to send general ledger transactions:

1 For each application ensure that the General Ledger distribution tailoring option is set to Yes. See the *Planning and Installing Infor ERP XA* guide.

2 For each application ensure that the General Ledger distribution interface for the application is active. See option 4, Activate/Deactivate Interfaces on the CAS Maintenance/Change menu (AMZM30). See the *Cross Application Support User's Guide*.

3 In the General Ledger Interface function for each application, ensure that the Interface to General Ledger option for each type of transaction you intend to send to EGLi is set to Yes. EGLi provides macros and models that are used instead of rules and priorities to assign GL account numbers. If you do not require EGLi to assign account numbers, you will define the rules and priorities in the General Ledger Interface.

This table shows where to define rules and priorities for each application:

	COM/CSM	IM/MM	PC&C/OBPM	REP/RBPM
Transaction	Sales transactions	Inventory transactions	Order-based production transactions	Rate-based production transactions
IDF Level 1 Task	Maintain Transaction Types	Maintain Transaction Types	Maintain Transaction Types	Maintain Transaction Types
Power-Link Application	Finance	Finance	Finance	Finance
Power-Link Application Tab	Customer Service GL Interface	Materials GL Interface	Order Based Production GL Interface	Rate Based Production GL Interface
Power-Link Icon/IDF Level 1 Menu	Customer Service GL Interface Tasks	Materials GL Interface Tasks	Order Based Production GL Interface Tasks	Rate Based Production GL Interface Tasks
IDF Level 1 Tab	Transaction Types	Transaction Types	Transaction Types	Transaction Types
Host Menu/Host Option	AMBM73, Option 4, Maintain Interface Control File	AMIMB3, Option 4, Maintain Interface Control File	AMCM93, Option 4, Maintain Interface Control File	AMQM63, Option 4, Maintain Interface Control File

	COM/CSM	IM/MM	PC&C/OBPM	REP/RBPM
For more information	See "Using the General Ledger Interface," in the *Customer Order Management User's Guide*	See "General Ledger Interface," in the *Inventory Management User's Guide*	See "General Ledger Interface," in the *Production Control and Costing User's Guide*	See "General Ledger Interface," in the *Repetitive Production Management User's Guide*

Activating XA Application Interfaces to EGLi

The Application Settings object contains Enterprise General Ledger options you can use to specify the start date from which each XA application will begin to send transactions to EGLi. From the specified date for an application, any type of transaction that XA sends to the General Ledger Interface is also sent automatically to EGLi.

Note: If you are using the IFM migration process, see “Setting up EGLi migration process” on page 27. This step is part of the migration process.

To specify the start date for an application:

1. In the Application Settings object, select the Enterprise General Ledger application and then select **Maintain > Change**.
2. In the Enterprise General Ledger Application Settings card file, specify the interface activation date for these application functions:

   Production

   Specify the date from which you require production GL transactions from Order Based Production Management (OBPM) and Rate Based Production Management (RBPM) to be sent to EGLi.

   Customer Service

   Specify the date from which you require sales GL transactions from Customer Service Management (CSM) to be sent to EGLi.

   Finance

   Specify the date from which you require financial transactions from Enterprise Financials (Finance) to be sent to EGLi.

   Materials

   Specify the date from which you require inventory GL transactions from Materials Management (MM) to be sent to EGLi.

   AM Accounts Payable

   Specify the date from which you require payable financial transactions from Accounting Management (AMPlus) to be sent to EGLi.

AM Accounts Receivable

Specify the date from which you require receivable financial transactions from AMPlus to be sent to EGLi.

3 Click **Update.**

Activating Currencies and Exchange Rate Sets

The Currencies, Exchange Rate Sets, and Exchange Rates objects are required for use with EGLi. To enable these objects in the XA environment, the Activate currency and exchange rate objects option in the Enterprise Financials settings in the Application Settings object must be set to Yes before EGLi is installed in Link Manager. You cannot change this option after this option is set to Yes. EGLi uses the currency information defined in the Currencies object. You also define the type of rounding method used with currencies in EGLi in the Currencies object.

EGLi uses the exchange rate information defined in the Exchange Rate Sets and Exchange Rates objects for currency conversions. Previously, XA applications used the exchange rates from Cross Application Support (CAS). Now, you specify and maintain all exchange rates in the Exchange Rate Sets and Exchange Rates objects. Any exchange rate sets you intend to use with EGLi must have IDs of six characters or less.

Chapter 3 Setting up EGLi manual process

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This chapter discusses the objects that you use to set up EGLi manually. See the online help for additional information.

If you use IFM, we recommend that you use the migration tools provided with the EGLi installation. These tools migrate your data from IFM to EGLi and eliminate the manual set up of EGLi. See “Setting up EGLi migration process” on page 27.

After you complete the migration or manual set up, perform all maintenance of EGLi objects; such as financial calendars, charts of accounts, accounts, ledgers, and books in EGLi.

Account segments

Use Natural Account Segments and Non-Natural Account Segments to define account segments and account segment values. Account segments are user-defined categories used to track information within a chart of accounts. Examples of segments include: Account, Warehouse, Project, Region, and Profit Center.

After you create the account segment, add the segment values. Account segment values are codes that you define for a specific segment. For example, within a segment called Region, you can define its segment values as North, South, East, and West. For natural account segments these values are commonly numeric values. For example, you can define values as10001, 10002, 20001, and 20002.

For natural account segment values you can define the summarization rules and other attributes.

If a subsystem transaction generates in an EGLi journal entry with multiple lines for the same GL account, the summarization option controls whether those lines are summarized into a single line for that GL account. The option also controls whether the original lines are kept as details.

This table shows the summarization options that are available if the segment is defined as a natural account:

Selection	Description
None	Journal lines are not summarized (detail lines are kept).
Summary Only	Only the summary journal line is kept. Detail journal lines are discarded.
Summary with Detail	Both the summary journal line and the original detail lines are kept.

Chart of accounts

Use these guidelines to define a chart of accounts:

- Define a sequence of up to 14 unique segments for a single chart of accounts.
- Each segment can be up to 16 characters long.
- The natural account segment in a chart of accounts determines an account's type. For example, an asset. There must be only one natural account segment for each chart of accounts.
- The delimiter defined for a chart of accounts cannot be used as a character within any segment values associated with this chart of accounts. For example, if you define a period (.) as the delimiter for a chart of accounts, no segment values within this chart of accounts can contain a period.

Financial calendars

A financial calendar is a user-defined calendar that contains up to 998 user-defined accounting periods, including up to one audit period. For example, you can define a financial calendar for a fiscal year, a quarterly report, a five-year forecast, or a capital project. Periods 0 and 999 are reserved for the Create Opening Balance task. This process moves closing balances from the end of the year into opening balances at the beginning of the following year. Perform this task in the Ledger Books object.

After you create a financial calendar, you can use the financial calendar with a ledger. The financial calendar you choose applies to all books created for that ledger. However, individual books are opened for a specific year.

Review these considerations for a financial calendar:

- EGLi requires the use of an opening balance period to store the beginning balances for all balance sheet accounts in the Create Opening Balances process. The opening balance period is 0 and is created automatically.
- EGLi requires the use of a closing balance period to store the closing balances for all balance sheet accounts in the Create Opening Balances process. The closing balance period is 999 and is created automatically. You can have multiple years or multiple budgets (or both multiple years and multiple budgets) open simultaneously.
- EGLi provides automatic period creation. EGLi generates the individual periods for a financial calendar that uses a Twelve Month Period calendar based on a user-defined Start date. You can override the EGLi-generated To dates for each period and EGLi will automatically update the From dates. EGLi adjusts generated periods for leap years.
- For a calendar that does not start at the beginning of the month or is not 12 periods, the application will create the number of periods indicated using a From date equal to the Start date

and a To date of 12/31/2999. You must revise the To date for each period to get the correct From and To dates for each period. Select all of the periods and use the Quick change icon.

Ledgers and ledger books

Ledgers represent the organizational entity in EGLi. A ledger can be a legal entity; such as a corporation, a capital projects ledger, or an operating ledger for a business unit or division. Select the financial calendar and chart of accounts to define a ledger and then assign books to that ledger.

Ledger Books allow you to maintain several types of information within a ledger. Each book inherits the ledger's financial calendar and chart of accounts. The book includes additional information such as period close overrides, book currency, journal numbering options, and book close status. Examples of books include: Actual Dollars, Budget Dollars, Actual Euros, and Statistics.

ATP uses the transaction posting date to retrieve the associated rate from the Exchange Rates object. If you select the Override exchange rate attribute, the system uses the exchange rate entered as part of the ERP transaction when the system calculates book amounts and posts journals to the book. This process occurs when the book currency is equal to the transaction company’s currency or financial division currency.

You can use the journal source to group like journal entries created for a book.

Financial macros

Financial macros are attribute references defined to retrieve ERP details that determine the account segments or other information that are used to create journal entries. Use financial macros in financial models to define any part of a model. For example, you can define an account segment, the amount that posts to an account balance, a reference, or an analysis attribute. The ATP posting engine resolves the macros when it creates journal entries from the financial models.

This object does not require set up. EGLi includes predefined macros to use with XA. You can configure additional macros for a specific business situation. See the *Configurable Macro User Guide*.

Financial macro aliases

An alias macro is used to substitute an alternative value into the EGLi journal entry, based on a macro value retrieved from the ERP. For example, if the unit value is “01DIV” on the ERP transaction, you can use an alias macro to set the corresponding EGLi account segment value to “01” instead of “01DIV”. An alias macro can also be used to specify the value of multiple segment values in the EGLi journal entry.

An alias can represent any number of contiguous segments in a chart of accounts. Aliases cannot contain wild card characters (? and *), equal signs (=) or quotation marks (" "). Aliases are resolved into segment values during Events Processing.

If account validation encounters an alias, account validation will resolve that alias. For example, if Segment 1 contains Alias 1 that defines three segments, account validation will resolve Alias 1 for Segments 1, 2, and 3. An error message will be returned if you specify overlapping aliases.

Financial models

You can use the Financial Models object to create and maintain journal models. Journal models are the basis of all journal entry activity in EGLi. A model is a template used to create a journal entry based on characteristics of the ERP subsystem transaction. An event class rule identifies the model to be used to create journal entries during event processing.

Models correspond to a specific chart of accounts and journal source. Models contain one or more model lines that contain accounts, an amount, statistical values, reference information, and other information.

The Model Lines card contains ATP attributes and several attributes that you can only use when the model is for a subsystem event.

Financial event classes

Use the Financial Event Classes object to define the business transactions with financial impact that should be recorded in the general ledger. Financial event classes can be defined to post to any combination of Ledger and Books.

Financial event classes consist of one or more event class rules. Each event class rule identifies a ledger, book, and model.

Financial event classes contain one or more models or allocations that define the accounting for that particular transaction. Each model creates a journal entry during events processing. Within an event, a model is assigned to a specific ledger and book. Therefore, an event can post the same accounting entry to multiple ledgers and books simultaneously by assigning a model to a specific ledger and book. Events then post to all or none of the models. The update of all or none of the affected ledgers and books retains the integrity of the transaction. EGLi does not support posting multiple models to the same Ledger and Book.

Subsystems

Subsystem events determine which financial event class is used to create journal entries. EGLi includes these predefined subsystem processes to classify subsystem transactions in XA:

- XA AM Accounts Payable (AMPlus)
- XA AM Accounts Receivable (AMPlus)
- XA Customer Service (CSM)
- XA Finance (IFM)
- XA Materials (MM)
- XA Production (OBPM)
- XA Production (RBPM)

In the Subsystems object, create Subsystem Event Rules to link the subsystem processes with user-defined event classes. You can specify the journal process. For example, you can specify to post journal entries when they are created or to defer posting. Reason codes are used by the subsystem to identify the financial event class associated with a financial model.

External GL transactions

The External GL Transactions object consists of a required header and optional lines. You can use the External GL Transactions object to load GL transaction data from external applications into EGLi. You can enter the data into the External GL Transactions object through System-Link, Power-Link or Net-Link.

After the data has been loaded, you can run the Process Transactions host job to create corresponding journal entries in EGLi. If the journal entries cannot be created, the transaction is marked “Error” and errors are listed on the bottom of the detail card. If you selected the Allow Journals in Error parameter for a financial event class, the journal entry is created if possible and the external GL transaction is marked as “Processed.”

To process external GL transactions in EGLi, you must set up one or more:

- Models with subsystem origin = Batch Transactions, using macros from the External GL Transactions object
- Event classes with subsystem origin = Batch Transactions, using these models
- Subsystem event rules in the Batch Transactions subsystem, using these event classes

When you run the Load Enterprise GL Balances host job in the XA Ledger object, the application uses External GL Transactions to load the GL account balances from XA into EGLi. For more information, see “Load Enterprise GL Balances” on page 33.

For an example of how to configure EGLi to process external GL transactions, review these objects that are used by the XA to EGLi migration process:

- **Subsystems:** Subsystem event rules in the Batch Transactions subsystem

- **Financial Event Classes:** Event classes with subsystem origin = Batch Transactions
- **Financial Models:** Model LOADBAL

EGLi journal upload

EGLi users who maintain journal entries in a Microsoft Excel spreadsheet can use the Journal Upload installation program to upload journal entries to EGLi. The Journal Upload installation program adds an Add-ins tab to Microsoft Excel. This tab includes the ability to connect to the server that has EGLi installed and to open a spreadsheet template for manual journal entry. When the spreadsheet is finished, the Add-ins tab is then used to upload the spreadsheet.

The Journal Upload requires this software:

- EGLi 1.1
- Microsoft Excel 2010 or later

For more information, see the *Infor Enterprise General Ledger for System i Journal Upload Installation and Configuration Guide* in Xtreme under System i Common Components.

EGLi Journal Upload Installation

To install the EGLi Journal Upload program, you must first download the EGLi Journal Add-In Installer. This download adds a new link to the Power-Link Installation page that you can use to install the EGLi Journal Upload Add-In for Microsoft Excel.

Installing EGLi Journal Add-In Installer

To install the EGLi Journal Add-In installer to the host system:

1 Download and unzip the installer from the Windows executable (EXE) associated with Infor PTF SH15970 to C:\temp on your local workstation.

Caution: You must use a workstation connected directly to the same local network as your System i. Do not perform the install over a dial-up, broadband, or Wide Area Network (WAN) connection.

2 Execute these commands from System i command line to end the global environment:

ADDLIBLE AMCESLIB

ENDGBLSRV REQUEST(*BOTH)

3 From Windows Explorer, launch the installer: c:\temp\IDF_EGLiAddIn.exe

4 Follow the instructions in the install dialog boxes. In the Host Machine Information dialog box, you must provide information to configure the IFS correctly. Specify the name of your host

machine, then specify the user ID and password for an XA user whose user profile has *SECADM, *ALLOBJ and *JOBCTL authority.

5 Click **Next** when you have provided the required information. At this point, the credentials of the user ID you entered is checked to ensure the user is authorized to install the EGLi add-in. You can follow the progress of the install in the Transfer IFS dialog box.

6 Execute these commends from System i command line to start the global IDF environment:

ADDLIBLE AMCESLIB

STRGBLSRV

7 After the global environment is started, verify that the new EGLi Journal Upload link is available on the Power-Link Installation page. You will use this link to install the EGLi Journal Upload add-in to your PC. To access this page, use the web address below with your own values for system and NetLinkport:

http://system:NetLinkport/Installs/ClientInstall/Install.html

The system is the server where IDF is installed and NetLinkport is the Net-Link port, typically 36001.

Installing Excel Add-In

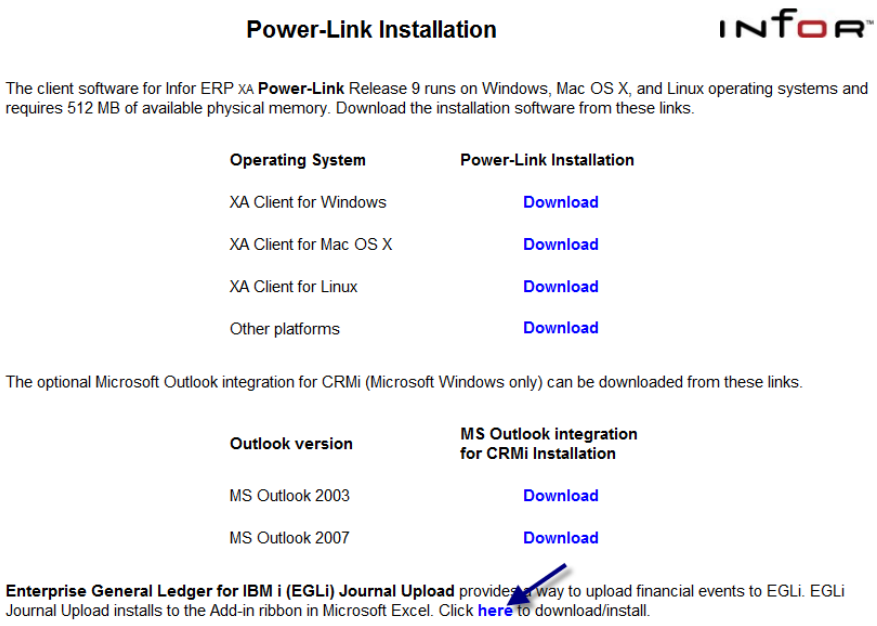
To install the Excel Add-In on your workstation:

1 Navigate to the Power-Link Installation page.

http://system:NetLinkport/Installs/ClientInstall/Install.html

The system is the server where IDF is installed and NetLinkport is the Net-Link port, typically 36001.

2 Click the link provided to install the EGLi Journal Upload Add-In.



Power-Link Installation

The client software for Infor ERP XA **Power-Link** Release 9 runs on Windows, Mac OS X, and Linux operating systems and requires 512 MB of available physical memory. Download the installation software from these links.

Operating System	Power-Link Installation
XA Client for Windows	Download
XA Client for Mac OS X	Download
XA Client for Linux	Download
Other platforms	Download

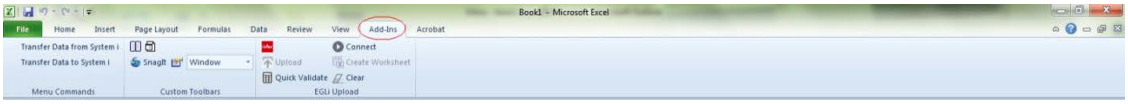
The optional Microsoft Outlook integration for CRMi (Microsoft Windows only) can be downloaded from these links.

Outlook version	MS Outlook integration for CRMi Installation
MS Outlook 2003	Download
MS Outlook 2007	Download

Enterprise General Ledger for IBM i (EGLi) Journal Upload provides a way to upload financial events to EGLi. EGLi Journal Upload installs to the Add-in ribbon in Microsoft Excel. Click **here** to download/install.

3 Follow the screen prompts to install the Journal Upload on your PC.

4 To verify the installation was successful, open Microsoft Excel and click the **Add-Ins** tab. The EGLi Journal Upload Add-Ins ribbon is displayed.



Chapter 4 Setting up EGLi migration process

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IFM users can configure EGLi with XA data and transfer GL account balances from IFM to EGLi using XA migration objects. After you complete the migration or manual setup, perform all maintenance of EGLi objects; such as financial calendars, charts of accounts, accounts, ledgers, and books in EGLi.

Migration overview

To take full advantage of the IFM migration tools, we recommend that you install EGLi and complete the migration tasks in a test environment with data from your production environment. After you test transaction processing, you can transfer the EGLi configuration to your production environment.

The IFM migration automatically configures EGLi to process transactions from XA applications. The migration updates EGLi objects with XA data so that you are not required to manually set up EGLi objects. The migration transfers general ledger account balances from IFM and provides a process to check balances migrated successfully.

This table shows the EGLi objects the migration automatically creates from these IFM objects:

From IFM object	To EGLi object
Fiscal Years	Financial Calendars
Financial Division Periods	Financial Calendar Periods
Units	Charts of Accounts
Natures	Chart of Accounts Segments
	Account Segments
	Account Segment Values
Financial Divisions	Ledgers
Ledgers	Ledger Books
	Ledger Book Journal Sources
GL Account Period Balances	Ledger Accounts
	Ledger Book Balance Summary

The migration automatically populates these EGLi objects that are used to process XA transactions:

- Subsystem Event Rules

- Reason Codes
- Financial Event Classes
- Financial Event Class Rules
- Financial Models
- Financial Model Lines

When you finish the migration process, EGLi is ready to use.

User authorization

To run the migration process, the user must be authorized to these IFM security tasks:

- Maintain Financial Divisions to select fiscal years and periods to migrate.
- Host job “Load Enterprise GL” to automatically load the EGLi objects and balances.
- Host job “Export EGL Configuration” to optionally copy the EGL configuration from a test environment to a production environment.
- Action “Change GL Account Period Balance” or “Mass Change GL Account Period Balance” to approve an initial balance discrepancy between a GL account period balance in IFM and the corresponding ledger book balance summary in EGLi.

Migration process

The IFM migration uses the objects on the **Finance > Enterprise General Ledger > General Ledger Migration** card. To successfully migrate the XA data to EGLi, you must perform the tasks in this sequence:

Installing and configuring XA and EGLi in your test environment

To prepare your test environment:

1. Install ERP XA R9.1 SH15904 PTF 03037.
2. Install SH52219 - Migration tool.
3. The Activate currency and exchange rate objects option in the Enterprise Financials settings in the Application Settings object must be set to Yes before EGLi is installed in Link Manager. Note that this option cannot be changed after this option is set to Yes.
4. Copy the production data to your test environment.
5. Install EGLi. The installation automatically updates the IFM Financial Division Periods and Fiscal Years.

Performing migration process in the test environment

To perform the migration process, you use the objects on the Migration application card in the sequence they are shown. This table shows how to use these objects to migrate data:

Object	Task	Details
XA Financial Division Periods	Check the fiscal periods before migration	Unlike IFM periods, EGLi periods must be assigned to a fiscal year. The EGLi installation automatically assigns each IFM financial division period to a fiscal year based on period structures or period dates. The application assigns one of these values for fiscal year confidence to each record: • High: if the fiscal year was manually set by a user • Medium: if the fiscal year was automatically set by the application based on an IFM period structure with period structure ID in the format YYYYXXXXXX or YYYY, where YYYY is the fiscal year and XXXXXX is the financial division ID • Low: if the fiscal year was automatically set by the application based on the start date and end date of the financial division period The fiscal year confidence value identifies the periods that require review before migration. When the fiscal year values are correct, use the Fiscal Years object Change or Quick Change task to set the status of each period to Ready to migrate. If you change the period structures in IFM after you install EGLi, you can run the Load Periods host job to reset the fiscal year value on the financial division periods. The host job will not change or delete any fiscal year value where Fiscal year confidence is High, or EGL migration status is Ready to migrate, or EGL migration status is Complete. See “Migration host jobs” on page 32.
XA Fiscal Years	Specify the year-end retained earnings unit and nature for each fiscal year before migration	EGLi requires the year-end retained earnings account to be defined for each fiscal year. Separate fiscal years are defined for each financial division. Use the Quick Change task to specify the unit and nature for retained earnings and to set the status of each fiscal year to Ready to migrate**.** To see all the financial periods defined for the fiscal year, select a fiscal year record and display the detail.

Object	Task	Details
XA General Ledgers	Migrate configurations and account balances	The Ledgers object includes host jobs to configure EGLi and to load the existing account balances into EGLi. • Load EGL Configuration • Load Enterprise GL Balances • Audit EGL Balances See “Migration host jobs” on page 32.
XA GL Account Period Balances	Check that balances were migrated successfully	Use the EGL Migration view to see any discrepancies between the XA and EGLi balances. Correct or approve the discrepancies as appropriate.
Enterprise GL Migration	Reactivate transaction posting in IFM	The application automatically suspends financial transaction posting in IFM to prevent data corruption as you are migrating the account balances. When the account balances have been migrated successfully, you can use the Activate Financial Transaction Posting menu option to reactivate posting.
Application Settings	Activate the interfaces from XA to EGLi	The Application Settings object in XA contains Enterprise General Ledger options that allow you to specify the start date from which each XA application will begin to send transactions to EGLi. From the specified date for an application, any type of transaction that XA sends to the General Ledger Interface is also sent automatically to EGLi. See “Activating XA Application Interfaces to EGLi” on page 16.

Installing XA and EGLi in the production environment

After you have validated that the migration was successful in the test environment, you must migrate the configuration from the test environment to the production environment. To prepare your production environment, perform these steps as required:

1. Install ERP XA R9.1 SH15904 PTF 03037.
2. Install SH52219 - Migration tool.
3. The Activate currency and exchange rate objects option in the Enterprise Financials settings in the Application Settings object must be set to Yes before EGLi is installed in Link Manager. Note that this option cannot be changed after this option is set to Yes.
4. Install EGLi. The installation automatically updates the IFM Financial Division Periods and Fiscal Years.

Exporting and importing configuration

Run the Export EGL Configuration host job from the Enterprise GL Migration object in the test environment. This host job copies the configuration, in object files, into a set of export files. You then copy the export files into your production environment. Run the Import EGL Configuration host job to import the configuration from the exported files into your production environment. See “Migration host jobs” on page 32.

Performing migration process in the production environment

To perform the migration process, you use the objects on the Migration application card in the sequence they are shown. This table shows how to use these objects to migrate data:

Object	Task	Details
General Ledgers	Migrate account balances	The Ledgers object includes host jobs to configure EGLi and to load the existing account balances into EGLi. The object includes these host jobs: • Load EGL Configuration (Do not run this host job if you have already loaded the EGLi configuration using the Import EGL Configuration host job) • Load Enterprise GL Balances • Audit EGL Balances See “Migration host jobs” on page 32.
GL Account Period Balances	Check that balances were migrated successfully	Use the EGL Migration view to see any discrepancies between the XA and EGLi balances. Correct or approve the discrepancies as appropriate.
Application Settings	Specify the start date for each application for which you intend to send GL transactions to EGLi	The Application Settings object in XA contains Enterprise General Ledger options that allow you to specify the start date from which each XA application will begin to send transactions to EGLi. From the specified date for an application, any type of transaction that XA sends to the General Ledger Interface is also sent automatically to EGLi. See “Activating XA Application Interfaces to EGLi” on page 16.

Activating Posting

The application automatically suspends financial transaction posting in IFM to prevent data corruption during your migration of the account balances. When the account balances have been migrated successfully, you can use the Activate Financial Transaction Posting menu option to

reactivate posting. This menu option is available in the IFM objects: Ledgers, GL Account Period Balances, and Enterprise EGL Migration.

Migration host jobs

Host jobs are used in the migration process. See the online help for how to run these host jobs.

Audit Enterprise GL Balances

The audit process runs automatically when you run the Load EGL Balances host job the first time. The audit process compares GL account balances in XA and EGLi and records any discrepancies in the GL Account Period Balances object in IFM. You can manually rerun this host job in the XA Ledgers object.

Export EGL Configuration

After you complete the migration tasks in your test environment and have verified the results, you can move the EGL configuration to your production environment. Create a library that will be used to hold export files. Run the Export EGL Configuration host job in Enterprise GL Migration in the test environment specifying the library created for the export files. This host job copies the configuration, and object files, into the export library. You must copy the export files into your production environment. In your production environment, run the Import EGL Configuration host job in Enterprise GL Migration to import the configuration from the exported files specifying the library that contains the export files.

These object files are copied:

- Account Segments
- Account Segment Values
- Charts of Accounts
- Charts of Accounts Segments
- Ledgers
- Ledger Books
- Ledger Book Journal Sources
- Financial Calendars
- Financial Calendar Periods
- Subsystems
- Subsystem Event Rules
- Financial Reason Codes

- Financial Event Classes
- Financial Event Class Rules
- Financial Models
- Financial Model Lines
- Financial Macros
- Financial Macro Aliases
- Financial Division Periods
- Fiscal Years

Import EGL Configuration

After you have exported files using the Export EGL Configuration host job, copy the export files to your production environment. Run the Import EGL Configuration host job in the Enterprise GL Migration object to copy the configuration from the exported files into your production environment. On the library prompt, enter the library name that contains the exported files.

The Import EGL Configuration host job will create or change records in the production environment based on the data in the import files. For each Ledger in the import files, this host job sets the IFM Ledger's EGL Migration status to 1 (Configuration loaded).

Load EGL Configuration

This host job in the XA Ledgers object loads the data from the Financial Division Periods, Fiscal Years, and XA Ledgers into the appropriate EGLi objects. When you run this host job you are prompted for a fiscal year. The year that you specify (From fiscal year) and all years forward to the first year set to 'Do not migrate' are loaded into EGLi. The prior year is also loaded so that the opening balances for the From fiscal year can be calculated correctly in EGLi. The XA opening balances of the From fiscal year is put into the last EGLi period of the previous fiscal year.

Do not run this host job if you have already loaded the EGLi configuration using the Import EGL Configuration host job.

Load Enterprise GL Balances

Run this host job in the XA Ledgers object to migrate the GL account balances from XA to EGLi. This host job creates journal entries in EGLi and initializes the opening balances in each EGLi ledger book. The host job uses the External GL Transactions object to load the journal entries. After the journal entries are posted, the host job uses the Create Opening Balances transaction to initialize the opening balances. If any of the external GL transactions could not be processed, or if any of the journal entries could not be posted, the host job will not attempt to create the opening

balances. In this scenario, you can correct the errors in EGLi and then rerun the Load EGL Balances host job to initialize the opening balances.

To correct errors:

1 On the Transactions tab open External GL Transactions to see the status.

2 If a status for a transaction is Unprocessed, display the detail card to see the error message.

3 Check Financial Journal Entry to see if entries are not posted.

4 Correct the errors and post the journal entries.

Load Periods

The Load Periods host job is run automatically when EGLi is installed. If you make changes to period structures in IFM, you can optionally rerun this host job in the Financial Division Periods object to reset the fiscal year value on the financial division periods. The host job will not change any fiscal year value where Fiscal year confidence is High, or EGL migration status is Ready to migrate, or EGL migration status is Complete.

Viewing activity from Host jobs

EGL Migration History records are created to record the status of the migration process. This table shows the host job and activity that generates migration history records in the Enterprise GL Migration object:

Host job	Activity
Load EGL Configuration	Load configuration
Load Enterprise GL Balances	Load balances to External GL Transactions Load balances to Journal Entries (Process External GL Transaction to create Journal Entries) Load balances to Accounts (Post journal entries and calculate opening balances)
Export EGL Configuration	Replicate configuration

Chapter 5 Using XA

5

XA applications send ERP transactions to the General Ledger and to EGLi when the General Ledger Interface function in XA is enabled and the EGLi interface activation date is today's date or before today's date. These XA applications send GL transactions to the General Ledger and to EGLi:

- Accounting Management (AMPlus).
- Customer Service Management (CSM).
- Enterprise Financials (Finance).
- Materials Management (MM).
- Procurement Management (PM). Procurement Management transactions are sent to EGLi through the Finance subsystem.
- Production Management (OBPM and RBPM).

Accounting Management

After you configure AMPlus for use with EGLi, XA automatically sends payable and receivable GL transactions to EGLi.

If a payable journal entry is posted to the XA General Ledger, the transaction header is saved in the Payable GL Transactions object and the transaction details are saved in the Payable GL Transaction Activities object.

If a receivable journal entry is posted to the XA General Ledger, the transaction header is saved in the Receivable GL Transactions object and the transaction details are saved in the Receivable GL Transaction Activities object.

After the GL journal entries are created in EGLi, EGLi assigns the journal entries to accounts based on characteristics of the transactions. For example, journal entries for payable and receivable transactions are assigned to accounts based on characteristics such as company, vendor or customer, and reason code. The reason code identifies the source of the transaction. The transaction type identifies the GL account to which each GL amount should be posted. The EGLi model can also be configured to use accounts assigned in AMPlus.

Macro availability in AMPlus

To see the list of macros available from this subsystem:

1. In EGLi, open the Financial Macros object.
2. If you do not already have a subset for viewing the Subsystem origin, see the instructions in Appendix A: Creating a subset.
3. Select the Subsystem origin subset.
4. Select 64 = XA AM Accounts Receivable or 65 = XA AM Accounts Payable.
5. Click Continue.
6. In addition, you can also use some macros that are shared with other Subsystems. To view these macros, use the Subsystem origin subset and select [blank] = Shared.

   These objects have macros that you can use with XA Accounts Payable and Accounts Receivable and other subsystems:

   - Customers (AR)
   - Vendors (AP)
   - Purchase Orders (AP)

Reason codes and accounting entries

AMPlus sends transactions to EGLi with a reason code that is used to determine how to process the financial transaction. You use these reason codes to set up subsystem processes in EGLi.

Transaction types identify the source of the transaction within a subsystem.

In models for the XA AM, AP, and AR subsystems, there will typically be one model line. The model line has the macros for the account string. Typically, the company macro and account macro. The line also includes:

- Debit macro = Payable/Receivable GL Transaction Activity - Transaction amount - debit, and
- Credit macro = Payable/Receivable GL Transaction Activity - Transaction amount - credit.

This table shows the GL natural account types that apply for each reason code in the XA AM Accounts Receivable and XA AM Accounts Payable Subsystem:

Reason code	Reason code description	Transaction type	Transaction type description
	AP Transaction Types		
AP1	Entered payable invoice	PJAP	Purchase journal, AP
	Generated purchase order invoice	PJEX	Purchase journal, expense
		PJLC	Purchase journal, landed cost
		PJTX	Purchase journal, taxes
AM1	Entered invoice payment from manual check	MPAP	Manual payment, AP
		MPBA	Manual payment, bank charge

Reason code	Reason code description	Transaction type	Transaction type description
	Manual check reversal	MPCA	Manual payment, cash
		MPDI	Manual payment, discount
		MPEX	Manual payment, expense
		MPIN	Manual payment, invoice clearing
AC1	Cash payment	CDAP	Cash disbursement, AP
		CDCA	Cash disbursement, cash
		CDDI	Cash disbursement, discount
		CDIN	Cash disbursement, invoice
		CDTX	Cash disbursement, taxes paid
		PRAP	Payment reversal, AP
		PRBA	Payment reversal, bank charge
		PRCA	Payment reversal, cash
		PRDI	Payment reversal, discount
		PREX	Payment reversal, expense
		PRIN	Payment reversal, invoice clearing
	AR Transaction Types		
AC2	Cash receipt	CRAJ	Cash receipt, adjustment
		CRAR	Cash receipt, AR
		CRBA	Cash receipt, bank charge
		CRCA	Cash receipt, cash
		CRDI	Cash receipt, discount
		CRMR	Cash receipt, miscellaneous
		CRWO	Cash receipt, write off
		SCAR	Service charge, AR
		SCSC	Service charge, charge

Currency processing for payable and receivable GL transactions

The Currencies, Exchange Rate Sets, and Exchange Rates objects are required for use with AMPlus and EGLi. To enable these objects in the XA environment, the Activate currency and exchange rate objects option in the Enterprise Financials settings in the Application Settings object must be set to Yes before EGLi is installed in Link Manager. Note that this option cannot be changed after this option is set to Yes. All maintenance of currencies and exchange rates must then occur in the Currencies object and the Exchange Rates object.

Note: In multiple currency processing, EGLi amounts on transaction macros use trading currency.

Before you activate the Currencies and Exchange Rate Sets objects, you must specify exchange rates in the Exchange Rate Sets object. The exchange rates from the CAS/AM Plus file (EXRATE) are no longer used and they are not automatically copied into the Exchange Rate Sets object. Any exchange rate sets you intend to use with EGLi must be six characters or less.

A financial transaction in AMPlus can have an override exchange rate and an override exchange rate date that were entered for the journal entry. EGLi can process a payable or receivable GL transaction with override exchange rate information when the ledger book in EGLi allows an override exchange rate and either of these conditions applies:

- The currency in the EGLi ledger book is the same as the local currency for the XA environment and the financial journal entry has an override exchange rate or an override exchange rate.
- The currency in the EGLi ledger book is different from the local currency in the XA environment and the financial journal entry has an override exchange rate date.

Otherwise, EGLi ignores override exchange rates in the payable or receivable GL transaction and uses the exchange rate in effect for the transaction currency on the transaction posting date.

Posting date

In XA, AMPlus users indicate if they use 12 month accounting or 13 period accounting.

When 12 month accounting is used:

Users specify a journal entry date when they create GL transactions. This date determines the posting period. When AMPlus is interfacing with EGLi and 12 month accounting is used, the journal entry date is passed to EGLi. EGLi will use the journal entry date as the posting date when a journal is posted for the transactions.

When 13 period accounting is used:

Users specify a two digit period when they create GL transactions. The period determines the posting date in AMPlus. When 13 period accounting is used in AMPlus and the EGLi interface is active, a date field will be available that can be used to add a posting override date in EGLi. This is an optional field. When a date is not entered, EGLi will use the transaction date on the transaction as the posting date when a journal is posted. The EGL journal entry override date field will also be displayed when Materials and Production are interfacing with EGLi when either AMPlus or Finance (IFM) is installed.

Customer Service Management

When you create a customer invoice, CSM generates records in the Sales GL Transactions object. When the interface with EGLi is active, XA sends sales GL transactions to EGLi.

When IFM/Finance is installed, the sales GL transactions are sent to EGLi when the customer invoice is generated. If the sales GL transactions cannot be processed in EGLi (for example, if the posting period is not open and the event class does not allow journals in error), then the sales GL transactions can be resent to EGLi later using the Generate Sales GL Journal Entries host job. When IFM/Finance is not installed, the sales GL transactions are not sent to EGLi when the customer invoice is generated. The sales GL transactions are sent only from the Generate Sales GL Journal Entries host job.

CSM sends transactions to EGLi with a reason code to identify the source of the transaction. You can use these reason codes to set up models in EGLi for posting each type of sales transaction that XA sends.

A single customer invoice can have multiple sales GL transactions. For example, a customer invoice can contain several transactions for cost of sales and several transactions for sales revenue. From these transactions; the item amounts might go to one GL account, tax amounts to another GL account, and service amounts to a third GL account based on the type assigned to each transaction.

Each GL amount has a transaction type that you can use in the EGLi model to identify the GL account to which the amount should be posted. Revenue transaction types start with “R”. Cost transaction types start with “C”.

For sales transactions, General Ledger Interface supports four character transaction types. EGLi supports additional six character transaction types, which provide the means to specify additional accounts for sales transactions. The six character transaction types in EGLi correspond to the four character transaction type in the General Ledger Interface plus the two character GL transaction type detail in EGLi. For example, the transaction type RILI applies to revenue from invoices of inventory items. The transaction type RILI06 applies to revenue from invoices of inventory items that are kit components.

When a four-character transaction type is active in the General Ledger Interface function, the corresponding six-character transaction types are automatically active for use with EGLi. For example, if the transaction type RILI is active in the General Ledger Interface for Customer Order Management (COM), the transaction types RILI06, RILIDI, RILI02, and RILI03 are also automatically active and available for processing transactions in EGLi.

Currency processing for sales GL transactions

A customer invoice in CSM can have an override exchange rate and an override exchange rate date that were entered in the customer order. EGLi can process a sales GL transaction with override exchange rate information when the ledger book in EGLi allows an override exchange rate and one of these conditions applies:

- The currency in the EGLi ledger book is the same as the local currency for the XA environment and the customer invoice has an override exchange rate or an override exchange rate date.

- The currency in the EGLi ledger book is different from the local currency in the XA environment and the customer invoice has an override exchange rate date.

Otherwise, EGLi uses the exchange rate in effect for the transaction currency on the invoice posting date.

Materials Management

When the General Ledger Interface for MM is active, XA creates a record in the Inventory GL Transactions object for any transaction set up for the GL interface that affects inventory balances or inventory values created in these applications:

- Inventory Management (IM)
- Maintenance Management System (MMS)
- Repetitive Production Management (REP)
- Production Monitoring and Control (PM&C)
- Manufacturing Performance Analysis (MPA)
- Production Control and Costing (PC&C)
- CSM/ Customer Order Management (COM)
- Finance /International Financial Management (IFM)

When these applications create inventory transactions, the data flows to the Inventory Management History (IMHIST) file. Inventory GL Transactions is installed only when MM is installed.

When inventory transactions are created in XA and XA is configured for use with EGLi, inventory GL transactions can be used to create inventory GL journal entries in EGLi. To create inventory GL journal entries in EGLi, you must run the Generate Inventory GL Journal Entries host job from the File menu in the Inventory GL Transactions object. EGLi accounts are assigned by EGLi using rules based on the warehouse, transaction type, item, and order information. When you migrate the XA configuration to EGLi, the application automatically creates EGLi rules that will use the account numbers assigned by the XA GL interface. You can create your own rules based on any characteristics of the inventory GL transaction.

Macro availability in MM

To see the list of macros available from this subsystem:

1. In EGLi, open the Financial Macros object.
2. If you do not already have a subset for viewing the Subsystem origin, see the instructions in Appendix A: Creating a subset.
3. Select the Subsystem origin subset.

4 Select 60 = XA Materials.

5 Click Continue.

6 In addition, you can also use some macros that are shared with other Subsystems. To view these macros, use the Subsystem origin subset and select [blank] = Shared.

These objects have macros that you can use with XA Materials Management and other subsystems:

- Item Warehouses
- Items
- Manufacturing Orders
- Schedules
- Purchase Orders
- Purchase Order Items
- Purchase Order Item Releases
- Vendors
- Warehouses

Reason codes and accounting entries

EGLi uses the reason codes to determine how to process a material transaction. In the General Ledger Interface, you specify the transaction types that correspond to the reason codes for the material transactions you intend to send to EGLi.

In models for the XA Materials subsystem, you will typically have at least two model lines.

The first model line will be for the charge GL account, with

- Debit macro = Inventory GL Transaction - Charge amount - debit, and
- Credit macro = Inventory GL Transaction - Charge amount - credit.

The second model line will be for the offset GL account, with

- Debit macro = Inventory GL Transaction - Offset - debit, and
- Credit macro = Inventory GL Transaction - Offset - credit.

For reason codes that have a variance GL account, the model will have a third line, with

- Debit macro = Inventory GL Transaction - Variance - debit, and
- Credit macro = Inventory GL Transaction - Variance - credit.

This table shows the GL natural account types that apply for each reason code in the XA Materials Subsystem:

Reason code	Description	Charge account	Offset account	Variance account
	Issue Transaction Types			
IP	Planned manufacture issue	Inventory	Work in process	None
IS	Miscellaneous issue	Inventory	Depends on issue	None
IU	Unplanned component issue	Inventory	Work in process	None
IW	Interwarehouse issue	Inventory	Inventory in transit	None
IX	Uncontrolled floor stock	Work in process	Inventory in transit	None
NS	Issue shipped item	Inventory	Cost of transferred items	None
SA	Sales shipment	Inventory	Cost of sales	None
SC	Manufacturing component scrap	Work in process	Scrap expense	None
SM	Manufacturing order scrap	Work in process	Scrap expense	None
SP	Purchase order scrap	Inventory cost clearing	Scrap expense	None
SQ	QC status change	Inventory	Inventory cost clearing	Purchase price variance or inventory cost clearing
SS	Scrap from stock	Inventory	Scrap expense	None
VR	Purchase return to vendor	Inventory	Debit memos in process	Purchase price variance or inventory cost clearing
	Adjustment transaction types			
CR	Average cost replacement	Inventory	Always zero	Cost variance
CS	Standard cost replacement	Inventory	Always zero	Cost variance
CU	Standard unit cost default replacement	Inventory	Always zero	Cost variance

Reason code	Description	Charge account	Offset account	Variance account
IA	Inventory adjustment	Inventory	Always zero	Quality variance
PH	Physical inventory update	Inventory	Always zero	Quality variance
	Receipt transaction types			
CA	Cost adjustment	Inventory cost clearing	Accounts payable clearing	Purchase price variance
RC	Miscellaneous receipt	Inventory	Depends on receipt	None
RM MQ	Production receipt	Inventory	Work in process	Manufacturing cost variance
RP PQ	Purchase order Receipt to stock	Inventory	Inventory cost clearing	Purchase price variance or inventory cost clearing
RS	Component return to stock	Inventory	Work in process	Manufacturing cost variance
RW	Interwarehouse receipt	Inventory	Interwarehouse in transit	Cost variance

Currency processing for inventory GL transactions

All amounts in the inventory transactions sent to EGLi are in the local currency for the XA environment. EGLi will perform currency conversions for inventory transactions when the EGLi Ledger Book currency does not match the XA local currency.

Production Management

When the General Ledger interface for OBPM and RBPM is active, XA creates records in the Production GL Transactions object. For manufacturing order cost and cost variance, records are included for order-based production in the Order Based Production GL Transactions workspace. For labor, machine, and overhead costs to manufacturing schedules, records are included for rate-based production in the Rate-Based Production GL Transactions workspace. Production GL Transactions is installed only when OBPM or RBPM is installed.

When production GL transactions are created in XA and XA is configured for use with EGLi, production transactions can be sent to EGLi. To create production GL journal entries in EGLi, you must run the Generate Production GL Journal Entries host job from the File menu in the Order Based/Rate Based Production GL Transactions object.

EGLi accounts are assigned by EGLi from user-defined rules based on the warehouse, transaction type, item, and order information. You define the transaction type for general ledger transmission when you set up the General Ledger interface for order based and rate based production transactions.

Macro availability in OBPM and RBPM

To see the list of macros available from this subsystem:

1. In EGLi, open the Financial Macros object.
2. If you do not already have a subset for viewing the Subsystem origin, see the instructions in Appendix A: Creating a subset.
3. Select the Subsystem origin subset.
4. Select 61 = XA Production.
5. Click Continue.
6. In addition, you can also use some macros that are shared with other Subsystems. To view these macros, use the Subsystem origin subset and select [blank] = Shared.

   These objects have macros that you can use with XA Production and other subsystems:

   - Item Warehouses
   - Items
   - Manufacturing Orders
   - Schedules
   - Warehouses

Reason codes and accounting entries

EGLi uses the reason codes to determine how to process a production transaction. In the General Ledger Interface, you specify the transaction types that correspond to the reason codes for the production transactions you want to send to EGLi.

In models for the XA Production subsystem, you will typically have two model lines.

The first model line will be for the charge GL account, with

- Debit macro = Production GL Transaction – Charge amount – debit, and
- Credit macro = Production GL Transaction – Charge amount – credit.

The second model line will be for the offset GL account, with

- Debit macro = Production GL Transaction - Offset - debit, and
- Credit macro = Production GL Transaction - Offset - credit.

This table shows the GL natural account types that apply for each reason code in the XA OBPM Subsystem:

Reason code	Description	Charge account	Offset account
	Setup labor		
LSPA	Payroll	WIP	Undistributed PR
LSSA	Shop activity	WIP	Undistributed PR
	Run labor		
LRPA	Payroll	WIP	Undistributed PR
LRSA	Shop activity	WIP	Undistributed PR
LRAP	Outside operations	WIP	Undistributed outside operations
	Machine cost		
LMAC	Machine cost	WIP	Machine cost applied
	Overhead cost		
LOHD	Overhead cost	WIP	Overhead applied
	Miscellaneous Charge		
MCAP	Accounts payable	WIP	AP clearing
MCSA	Shop activity	WIP	Undistributed PR Miscellaneous charge applied
	Order closeout variances		
VMUS	Material usage	Variance expense	WIP
VMCS	Material cost	Variance expense	WIP
VSUS	Labor setup efficiency	Variance expense	WIP
VSCO	Labor setup cost	Variance expense	WIP
VRUS	Labor run efficiency	Variance expense	WIP
VRCO	Labor run cost	Variance expense	WIP
VOUS	Overhead efficiency	Variance expense	WIP
VOCO	Overhead cost	Variance expense	WIP

Reason code	Description	Charge account	Offset account
VEAC	Miscellaneous charge	Variance expense	WIP
VCLO	Order closeout	Variance expense	WIP
SCRP	Scrap cost	Scrap expense	WIP

This table shows the GL natural account types that apply for each reason code in the XA RBPM Subsystem:

Reason code	Description	Charge account	Offset account
RSET	Setup labor	Work in process	Payroll cost applied
RRUN	Run labor	Work in process	Payroll cost applied
RMAC	Machine cost	Work in process	Machine cost applied
ROHD	Overhead cost	Work in process	Overhead applied
RVAR	Schedule variance	Variance expense	Work in process

Currency processing for production GL transactions

All amounts in the production GL transactions sent to EGLi are in the local currency for the XA environment. EGLi will perform currency conversions for production transactions when the EGLi Ledger Book currency does not match the XA local currency.

Finance

When IFM/Enterprise Financials is interfacing with EGLi, XA sends financial transactions to EGLi when:

- A financial transaction is posted. This action sends a financial transaction to EGLi unless the transaction originated from one of these applications that send GL transactions directly to EGLi: CSM, MM, OBPM, or RBPM.
- New financial transaction allocations are posted for a financial transaction that was previously posted. For example, when a posted cash receipt is allocated later to clear an outstanding balance on an invoice, EGLi processes only the new financial transaction allocations and the new financial transaction GL amounts.
- New financial transaction cash is posted for a financial transaction that was previously posted. For example, when the cash amount is corrected on a previously posted cash receipt, EGLi processes only the new financial transaction cash and the new financial transaction GL amounts.

- New financial transaction GL amounts are posted for a transaction that was previously posted. For example, when a prepayment GL line is posted, EGLi processes only the new financial transaction GL amounts.

IFM/Finance sends transactions to EGLi with a reason code to identify the source of the transaction. You can use these reason codes to set up rules in EGLi for posting each type of financial transaction that XA sends. For example, you can set up Subsystem Event Rules in EGLi to define how to process receivable transactions that have a reason code of R01.

Financial transactions sent to EGLi

Unlike the financial transactions sent from CSM, MM, OBPM, and RBPM, IFM/Enterprise Financials does not send financial transactions to EGLi based on the transaction types specified in the General Ledger Interface. IFM/Enterprise Financials transactions are sent automatically to EGLi when the Finance interface for EGLi is activated in the Application Settings object. However, some general rules apply to the types of transactions IFM/Enterprise Financials can send to EGLi.

IFM/Enterprise Financials can send financial transactions related to purchase order invoices and credit/debit memos such as:

- AP invoice or credit memos you create manually.
- AP invoices generated automatically for a purchase order or inventory transaction.
- AP credit memos from purchase order debit memos.
- Installment interest accruals for an AP ledger.

IFM/Enterprise Financials does not send these types of financial transactions to EGLi because these transactions can be generated in EGLi:

- Generated opening balances.
- Generated balance sheet gain/loss.
- Generated revaluation of foreign currency ledger balances.
- Transactions in opening balance periods.
- Transactions in closing balance periods.

In addition, IFM/Enterprise Financials does not send these financial transactions to EGLi:

- Financial transactions that are generated accruals/reverse-accruals for unposted invoices.
- Financial transaction allocations for invoice settlement gain/loss because those gain/loss values can be calculated in EGLi.

Currency processing for financial GL transactions

The financial transactions that IFM/Enterprise Financials sends to EGLi can contain an override exchange rate and override exchange rate date (document date). If the EGLi ledger book allows an override exchange rate, EGLi uses these rules to determine which exchange rate to use:

- If the EGLi ledger book allows overrides, then EGLi uses the exchange rate or the exchange rate date from XA financial transaction. EGLi determines which override to use by comparing the EGLi book currency and the XA financial division currency.
  - If the EGLi book currency matches the XA financial division currency, the exchange rate from the transaction is used.
  - If EGLi book currency does not match XA financial division currency, EGLi uses the exchange rate date to look up the rate in the exchange rate set used by the EGLi ledger book.
- If the EGLi ledger book does not allow overrides, EGLi uses the exchange rate that is current in the exchange rate set for the ledger book on the posting date.

Multiple posting periods for financial GL transactions

If a single transaction in IFM/Enterprise Financials has lines in multiple different posting periods, EGLi will create separate journal entries in EGLi for each posting period.

Journal Grouping

EGLi performs journal grouping, a process that groups like transactions together, if you select this option during event class set up at the event class rule level. If the current transaction qualifies for grouping, the current transaction acquires the journal number of a previous like transaction within the same session. Journal entries qualify as like transactions if they have the same financial event class, ledger, ledger book, journal posting date, ledger book journal source, transaction currency, and exchange rate.

For XA transactions, EGLi handles journal grouping differently for each source application.

Journal Grouping for AP and AR transactions

Journal grouping occurs only for AP and AR transaction lines within a single posting period for a single XA financial transaction. Grouping does not occur across XA financial transactions.

Journal Grouping for sales transactions

For sales transactions generated in CSM, EGLi performs journal grouping only for the revenue lines of a single XA invoice or credit memo. Grouping does not occur across invoices or credit memos. Grouping does not occur across both revenue lines and cost lines.

Journal Grouping for financial transactions

For financial transactions generated in Enterprise Financials, EGLi performs journal grouping in these situations:

- Journal grouping occurs only for transaction lines within a single posting period for a single XA financial transaction. Grouping does not occur across XA financial transactions or across posting periods, even if a single XA financial transaction has multiple posting periods.
- When new financial transaction allocation lines are posted on a previously-posted financial transaction, grouping only occurs for the newly posted transaction lines within a single posting period for a single XA financial transaction. Grouping does not occur across XA financial transactions or across posting periods, even if a single XA financial transaction has multiple posting periods. The grouping does not include lines that were previously posted.
- When new financial transaction cash lines are posted on a previously-posted financial transaction, grouping only occurs for the newly posted transaction lines within a single posting period for a single XA financial transaction. Grouping does not occur across XA financial transactions or across posting periods, even if a single XA financial transaction has multiple posting periods. The grouping does not include lines that were previously posted.
- When new financial transaction GL lines are posted on a previously-posted financial transaction, grouping only occurs for the newly posted transaction lines within a single posting period for a single XA financial transaction. Grouping does not occur across XA financial transactions or across posting periods, even if a single XA financial transaction has multiple posting periods. The grouping does not include lines that were previously posted.

Manual Invoice Payments

The Manual Invoice Payments object in AMPlus contains information about manual payments and the invoices that have been applied against those payments. You cannot maintain manual payments in this object. You enter manual payments in IDF level 1 and then match the payments to invoices that are already open in the Open Payables file in IDF Level 1. Once manual payments are entered they are equivalent to system-generated payments.

Handling errors

When an XA application sends a transaction to EGLi, EGLi processes the transaction to create one or more journal entries. If EGLi cannot create journal entries for a transaction, error messages are recorded in XA. You can find EGLi errors in these locations:

- **XA GL transactions:** Use the Error transactions subset in the objects: Sales GL Transactions, Inventory GL Transactions, and Production GL Transactions. To display the error messages for a transaction, use the Error Messages menu option or view from the details card.

- **XA financial transactions:** Use a subset to select records where EGL error count is greater than zero. To display the error messages for a financial transaction, view the financial transaction overview.
- **AMPlus GL transactions:** Use the Error transactions subset in the Payable GL Transactions and Receivable Transactions objects. To display the error messages for a transaction, view the General card in the Payable GL Transaction Activities object or Receivable GL Transaction Activities object.

Correct the EGLi errors in the EGLi configuration of account segments, charts of accounts, financial calendars, ledgers, macros, models, event classes, and subsystems. Then, resend the GL transactions that have EGLi error messages using the Generate GL Journal Entries host jobs.

Chapter 6 Using EGLi

6

Multiple Currency Processing

Multiple currency processing of subsystems transactions includes translation of transaction to book (base) currency and calculation of realized or unrealized gains and losses. In addition, all rounding differences due to multiple currency processing are calculated and recorded. In ATP, translation of transaction to book currency occurs for all journal entry transactions when the transaction currency does not equal book currency. Realized gain and loss amounts can be recorded when cash payments are received in accounts receivable or when cash payments are made in accounts payable. Currency gain and loss amounts can also be calculated at period-end on all outstanding accounts receivable and accounts payable transactions to record either realized or unrealized gains and losses. The nature of these calculations is defined within the journal model.

Currencies

Define currencies, exchange rate types, and exchange rates in the Currencies and Exchange Rate Sets objects.

When you define a currency, select a rounding method and a rounding level.

Rounding

Rounding of subsystem journal entry amounts happens during ATP as part of multiple currency processing, including conversion of transaction to book currency and calculation of currency gains and losses. All amounts are rounded according to the currency rounding method when transaction amounts are calculated in the ERP subsystems. All book amounts and currency gain and loss amounts are calculated during ATP, so all rounding from these processes can only occur during ATP.

Specify one of these rounding methods in the Currencies object:

- **Half-Adjusting:** This method rounds up to the designated decimal place if the next decimal place out contains a value greater than or equal to five. If the value in the next decimal place out is less than five, all values following the designated decimal place are truncated.
- **Truncating:** The truncating method rounds down to the designated decimal place if any decimal place to the right contains an entry greater than zero.

- **Incrementing:** The incrementing method rounds up to the designated decimal place if any decimal place to the right contains a value greater than zero.

The rounding level can be set to 0.01, 0.05, 0.1, 0.5, 1, 5, 10, 50, 100, or 500.

Because amounts are translated from transaction to book currency during ATP, book amounts are rounded by the method designated for the currency being translated. If the transaction currency is the same as the book, currency rounding occurs in book amounts even though translation does not occur. This process ensures all book amounts are properly rounded when posted to EGLi account balances.

As amounts are rounded, rounding errors can occur. You must record these amounts to create a balanced journal. If you do not record these amounts and the journal is not in balance, the journal cannot be posted to the EGLi account balances in a balanced book. To avoid this situation, the system records all such differences to the first journal line created for the balancing points where rounding differences have occurred. See “Force balancing” on page 53.

Balancing points are designated for a chart of accounts and denote the account segment for which a balanced set of books is to occur (for which the total debits must match the total credits). Journal models can have lines with different balancing points if multiple ledgers are being updated, as in the case of inter-company journal entries. We recommend that you create journal model lines for each balancing point within a journal model to record rounding differences to a rounding account. This eliminates any variances that are retained in other accounts. Place these lines before all journal lines with the same balancing point and designate these lines as a “write zero amount” to ensure that these lines are created. See “Financial models” on page 54. If the line is not designated as a “write zero amount”, the rounding differences will be posted to the first line created that potentially contains an inappropriate account string.

Rounding differences can occur not only when you convert book to base currency, but also when you calculate currency gain and loss amounts. The rounding differences that result from such calculations will be handled in the previously noted manner, with all amounts recorded to the first journal line created for the designated balancing point.

This table shows examples of the effects of rounding:

- Transaction currency is Euros
- Book currency is US dollars
- Exchange Rate is 1.5

Rounding	Transaction Amount	Book Amount Before Rounding	Book Amount After Rounding
Half Adjust to the 1.0 position	5.00 EUR 6.50 EUR 7.25 EUR 8.49 EUR	7.50 USD 9.75 USD 10.875 USD	8.00 USD 10.00 USD 11.00 USD
Half Adjust to the .10 position	5.00 EUR 6.50 EUR 7.25 EUR	7.50 USD 9.75 USD 10.875 USD	7.50 USD 9.80 USD 10.90 USD

Half Adjust to the .01 position	5.00 EUR 6.50 EUR 7.25 EUR	7.50 USD 9.75 USD 10.875 USD	7.50 USD 9.75 USD 10.88 USD

Force balancing

Amounts are rounded when they are calculated within the ERP subsystems. For example, tax or variance amounts. Therefore, debit transaction amounts might not equal credit transaction amounts. To create and maintain a journal entry in EGLi, transaction amounts must be in balance. All differences are automatically put into the first journal entry line created for the balancing point that is out of balance. Debits and credits can be out of balance because of reasons other than rounding (for example, the journal model is defined incorrectly). The out-of-balance condition must be within a defined tolerance. This table shows the tolerances that are defined for each currency round position:

Currency and Position	Tolerance
1.00	99.00
0.01	.99

Any balancing differences within the tolerances noted above will be recorded to the first journal entry line of the balancing point that is out of balance. For rounding differences, create journal model lines for each balancing point within a journal model to record balancing differences to a force-balance account. These lines will be the same lines as those used to record rounding differences.

The same out of balance condition can also occur when book amounts that contain currency gain and loss amounts are created. The differences will be handled in the same manner as for transaction amounts.

This table shows an example of how force balancing happens:

Debits and Credits	Calculated Transaction Amounts	Rounded Amounts
Debits		
Cash	1525.25	1525.25
Financial Discount	228.7845	228.78
Tax Adjustment	12.141	12.14
Credits		
Accounts Receivable	1766.1755	1766.18

The Rounding method is half-adjust with a round-to position set to the second decimal place.

After rounding, total debits equal 1766.17 and total credits equal 1766.18: a difference of .01. Because this amount is within the designated tolerance level, the amount will be booked to the first journal line for the balancing point that is out of balance.

Ledgers

In EGLi, users create a separate book for each currency maintained for a ledger. You can maintain multiple sets of books within the same ledger, each in different currencies. The book determines the exchange rate used when the system calculates transaction to book currency. You can use either the default rate maintained in the currency exchange rate table or the rate from the ERP subsystem transaction. If you use the transaction rate, activate the Override Exchange Rate option at the book level. EGLi then records all transactions for the book at the exchange rate entered on the transaction.

Financial event classes

The rules defined within a financial event class determine the books that are updated with a subsystem transaction. Each event rule specifies a particular book to be updated. You can update books with all transactions or only transactions in which the transaction currency matches the book currency. For example, if you enter transactions in euros and US dollars for a ledger, you can maintain three books. A book for each transaction currency (US dollars and euros) and a reporting book that records both US dollars and euros in the book's currency.

Financial models

The multiple currency calculations are defined within the journal model and are based on the journal model gain loss line type.

If the model line is to record rounding differences to a rounding account for a balancing point within a journal model, select the Write zero amount check box.

Define the gain loss line type on the financial model line. The model line types are defined as follows.

Not a Gain or Loss

This line type indicates that the book amount for the journal model line is valued using the current exchange rate, such as the exchange rate in effect on the date entered on the transaction. This date is also the date noted on the journal header. The system converts all amounts not previously recorded at the current exchange rate. For example, when you enter an invoice into accounts payable, the entire journal entry will be valued at the current exchange rate because the amounts have not previously been recorded. However, when payment is made on the invoice, the current rate is only used to convert the cash amount. It is not used to convert the accounts payable liability. The original rate would be the proper rate that removes the liability because the accounts payable liability was originally recorded at a different exchange rate.

Positive gain or loss

This line type indicates that a gain or loss calculation is used to value the line. This calculation is the current exchange rate less the original exchange rate. If the calculation results in a positive amount the journal line amount is converted and a journal line is created. If the calculation results in a negative amount, the journal line amount is not converted and a journal line is not created. Journal lines created to record currency gain and loss amounts use this line type. This process occurs only in journal models used to process AM cash payments and cash receipts.

Negative gain or loss

Negative gain or loss is similar to a positive gain or loss in that it indicates that a gain or loss calculation is used to value the line. With this line type, a journal line is created only if the calculation results in a negative amount. Like positive gain or loss, use negative gain or loss to record currency gain and loss amounts.

Because currency gain and loss amounts are only applicable to book amounts, all transaction amount attributes will be blank for positive gain or loss or negative gain or loss.

Invoice

A line type of Invoice indicates that the original exchange rate is used to value the line. All amounts that were previously recorded and are now being reversed use a line type of Invoice. This process ensures that the amount recorded in the book is the same as the amount being reversed. For example, when cash payments are recorded in accounts payable, the accounts payable liability being reversed should be valued at the exchange rate at which it was originally recorded.

Appendix A Creating a subset

A

To view macros for a particular Subsystem origin, create a subset in the Financial Macros object.

To create a subset:

1 Select **Customize > Subset** in the Financial Macros object.

2 Select (new) from the list of subsets and click the New button.

3 Specify this information.

Name:

Name of the subset you are creating if you want to save this subset for use again. For example, name the subset “Subsystem origin”. If you are using the new subset only for this session, leave (temporary) in the Name attribute.

Domain:

Choose whether the subset will be public or private.

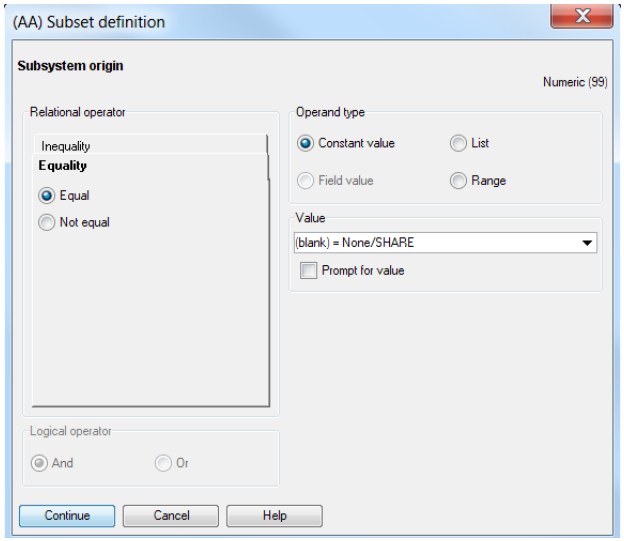
Security:

If you want to use XA security with this subset, specify a security value.

Defer calculation of column totals:

Select the checkbox if you do not want the column totals to display immediately. For more information, refer to Calculating Column Statistics in the on-line help.

4 To add the Subsystem origin attribute, select the attribute in the Available attributes list and click the Add button.



5 Click Prompt for value.

6 Click Continue.

7 Click Save if you want to save your changes for use again. Click Apply to update the object list you started from with the changed version of the subset.