Infor PM Business Specific Analytics

Planning Your Infor PM Enterprise Analytics for Infor ERP$_{LN}$ Implementation

User Guide

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Publication Information

Release: Infor PM Enterprise Analytics 2.8.2 for Infor ERP LN

Publication Date: May 2008

Document Number: U9127B US

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About This Guide

What is in this guide

This guide explains how to plan your Infor Enterprise Analytics for ERP LN implementation. It highlights areas that require further analysis that you should discuss with your Professional Services Consultant. This guide does not provide you with instructions about how to customize your Infor ERP LN analytic applications.

This guide contains the following:

- Sample data from an Infor ERP LN implementation to explain how the data is loaded into the data mart
- Dimension table explanations of how the dimension tables are populated in the Infor Enterprise Analytics applications for ERP LN based on the setup of your Infor ERP LN applications
- Data mart fact table explanations of how the fact tables are populated in the Infor Enterprise Analytics for ERP LN based on the setup of your Infor ERP LN applications

Other documentation

The Infor PM Enterprise Analytics applications documentation includes several guides to meet the needs of various audiences.

Topic	Location
How to customize Cognos Performance Applications	*Infor PM Enterprise Analytics 2.8.2 for ERP LN developer guides*
How to define account multipliers, account categories, account levels, and company fiscal variants	*Infor PM Enterprise Analytics Configurator 2.8.2 User Guide*

The analytic applications work closely with Cognos DecisionStream™; therefore, you may need to consult the Cognos DecisionStream documentation as you work with the product.

Questions or comments?

For a faster response to questions about using the analytic applications, contact product support.

For information about product support locations, programs, and current releases, refer to the product support Web site at http://www.infor365.com.

Chapter 1 Overview of Infor Enterprise Analytics for ERP LN

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Infor Enterprise Analytics for ERP$_{LN}$

Infor Enterprise Analytics applications are pre-packaged analysis and reporting solutions that help you understand areas that affect key business aspects such as General Ledger, Accounts Payable, Accounts Receivable, Sales, Inventory, and Purchasing. Infor Enterprise Analytics applications extract data from Infor ERP LN and load it into a decision-ready data warehouse.

Infor ERP LN is designed to be flexible, and no two customer implementations have identical needs. You adapt Infor ERP LN functionality to meet your processing needs. Meeting your reporting needs in the Enterprise Analytic applications may vary based on the data processing decisions. This guide helps you understand how INFOR ERP LN data is loaded into the multidimensional data warehouse.

Dimension and fact tables

The dimension and fact tables are joined together by surrogate IDs (SIDs). Each row in a dimension table is assigned a unique SID, and when populating the fact tables, database lookups are used to retrieve the dimension SIDs.

Conformed dimensions

Dimension tables that are shared by two or more of the Infor Enterprise Analytics applications are referred to as conformed dimensions. Conformed dimensions allow you to analyze all of your financial data at the same time. The conformed dimensions are as follows:

- All Time
- Accounting Document
- Chart of Accounts

- Company
- Customer
- Financial Currency
- Logical to Physical
- Material
- Organization
- UOM (Unit of Measure)
- User Category
- Vendor

GENERAL LEDGER	ACCOUNTS RECEIVABLE	ACCOUNTS PAYABLE	SALES	PROCUREMENT	INVENTORY
LOGICAL TO PHYSICAL	LOGICAL TO PHYSICAL	LOGICAL TO PHYSICAL	LOGICAL TO PHYSICAL	LOGICAL TO PHYSICAL	LOGICAL TO PHYSICAL
ALL TIME	ALL TIME	ALL TIME	ALL TIME	ALL TIME	ALL TIME
FINANCIAL CURRENCY	FINANCIAL CURRENCY	FINANCIAL CURRENCY	FINANCIAL CURRENCY	FINANCIAL CURRENCY	FINANCIAL CURRENCY
COMPANY	COMPANY	COMPANY	COMPANY	COMPANY	COMPANY
ACCOUNTING DOCUMENT	ACCOUNTING DOCUMENT	ACCOUNTING DOCUMENT			
CHART OF ACCOUNTS	CHART OF ACCOUNTS	CHART OF ACCOUNTS			
	CUSTOMER		CUSTOMER	CUSTOMER	
	USER CATEGORY	USER CATEGORY			
		VENDOR		VENDOR	VENDOR
			MATERIAL	MATERIAL	MATERIAL
			UOM	UOM	UOM
			ORGANIZATION	ORGANIZATION	

Figure 1-1: Conformed dimensions

Data warehouse

The analytic applications extract and store INFOR ERP LN data in the data warehouse at the lowest posting level. The structure of the data warehouse provides aggregation of the posting level data to summary level data that enables time-slice and consolidated reporting using Cognos 8 Business Intelligence.

Use this guide to review the sections of the data warehouse design when you require a gap analysis to achieve your consolidated reporting requirements. The gap analysis could identify changes to your Infor ERP LN implementation or to the Infor Enterprise Analytics data warehouse.

Notes

Chapter 2 Data Warehouse Considerations

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This chapter contains several areas for consideration when you extract data into the data warehouse. These considerations apply to each of the analytic applications. The chapter addresses the following topics:

Table sharing

A company represents an Infor ERP LN working environment. You define an Infor ERP LN company as a finance company, logistic company, or both a finance and logistic company. Infor ERP LN uses a logistic company for logistic transactions, such as the production and transportation of goods. Infor ERP LN uses a finance company to post financial data. You link each logistic company to an enterprise unit that coordinates the financial transactions between the logistic and finance company.

In Infor ERP LN, each company, regardless of the company type, contains a unique set of database tables and is considered a logical company during data extraction into the Infor Enterprise Analytics data warehouse. Companies in a multicompany system can share data. For example, the logistics companies can share the business partners and credit limit data. The financial companies can share the defined currencies and the currency exchange rates. A company that holds the master data used in data sharing is referred to as the physical company.

Logical company processing

Each of the jobs used to extract data from Infor ERP LN and populate the data warehouse uses logical company processing where each logical company is extracted one at a time based on the entries made in the Infor Enterprise Analytics Configurator Company Fiscal Variant Maintenance option.

Using this option, you enter each logical company to extract into the data mart, assign the appropriate fiscal variant or calendar, and enter the time zone and conversion factor from Greenwich Mean Time (GMT). For more details about how to use this option, refer to the *Infor Enterprise Analytics Configurator 2.8.2 User Guide.*

Fiscal variant	Company	Company description	Time zone	GMT conversion factor
1	100	Company 100	EST	-4
1	101	Company 101	EST	-4
1	102	Company 102	CST	-5
1	103	Company 103	EST	-4

At the start of the data extraction into the Infor Enterprise Analytics data warehouse, the analytic application identifies and transfers the table-sharing relationships into the data warehouse. The analytic application extracts information from the Logical/Physical Company Number table (ttaad420) in Infor ERP LN. During the extraction of each logical company, the analytic application evaluates the table sharing. In the example below, the Chart of Accounts table is shared for companies 100, 101, and 102. Company 103 does not share this table with any other company; therefore, no entry exists for Company 103.

Table	Table description	Logical company	Physical company
tfgld008	Chart of Accounts	101	100
tfgld008	Chart of Accounts	102	100

Dimension table extracts

The Infor Enterprise Analytics applications support sharing dimensional data only. During the extraction of dimensional data, the analytic application duplicates the table sharing that is set up in Infor ERP LN to the data warehouse, which results in a single set of dimensional data for all companies that share the data. The creation of a dimension table in the data warehouse with a smaller number of dimension members enhances the reporting capabilities of the solution.

Using the above example, the CHART_OF_ACCOUNT job in the analytic application processes the first logical company, Company 100, evaluates that a physical company is not assigned, and extracts the chart of account records for Company 100. The COMPANY_CD column in the CHART_OF_ACCOUNT table in the data warehouse is populated with the physical company, Company 100.

The system continues to process each logical company in the order listed in the table and evaluates the table sharing for each logical company. When the analytic application processes Company 101, the analytic application finds that Company 101 and Company 100 share the Chart of Account table; therefore, the analytic application does not extract additional records into the data warehouse. When processing Company 103, the analytic application finds that no table sharing relationships exist, which results in the analytic application extracting all of the accounts for Company 103 from the Chart of Account table.

Chart of account SID	Company code	Account number	Account description
1	100	1001	Cash – Primary Account
2	100	1002	Cash – Operating Account
3	103	1001	Cash – Operating Account

The analytic application stores all dimension tables in the data warehouse by the physical company, except for COMPANY_CONSOLIDATION, which the analytic application stores by the logical company.

Fact table extracts

The analytic application extracts transactional and balance data from Infor ERP LN to the analytics application warehouse by using the same method as described above in the “Logical company processing” section. When the fact records are linked to the dimension tables in the data warehouse, the analytic application uses the logical company associated with the transaction to identify the table sharing of the dimensional data.

For example, the General Ledger analytic application extracts finalized transactions from Infor ERP LN for Company 101. To attach the correct Chart of Account SID to the fact record, the analytic application passes the logical company and the chart of account table (tfgld008) to a function that reads the table sharing. Company 101 shares the chart of accounts with Company 100; therefore, the analytic application assigns the Chart of Account SID for Company 100.

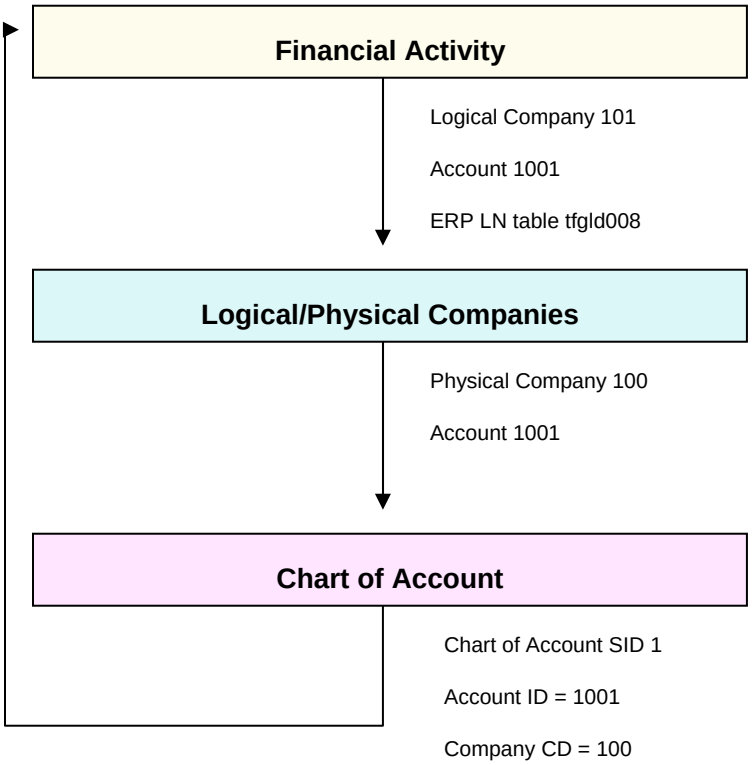

Figure 2-1: Fact table extracts

The analytic applications follow the same best practices for table sharing that Infor ERP LN uses. We recommend that you review the table sharing definitions in Infor ERP LN prior to implementing the analytic applications.

For more information about the table-sharing best practice in Infor ERP LN, refer to the *Infor ERP LN 6.1 User's Guide for Multicompany Table Sharing.*

Currency conversions

The analytic applications for Infor ERP LN use the currency assigned to the GROUP_CURRENCY console parameter in the Cognos Performance Applications Console to create a single common currency of the data warehouse. The analytic applications require a single common currency to consolidate and aggregate data in the data warehouse.

In Infor ERP LN you can define up to three home currencies for each company as the local currency, reporting currency 1, and reporting currency 2 fields. Currency conversions are based on the Infor ERP LN currency system that each financial company uses. The analytic applications support Single, Dependent and Independent currency systems. The analytic applications use the GROUP_RATE, LOCAL_RATE and REFER_RATE, which are defined in the analytic application, to convert transaction amounts from the document currency to the local currency of the company and then from the local currency to the group currency of the data mart.

The currency conversion derivations evaluate the CO_CONSOLIDATION table in the data mart to determine the Infor ERP LN currency system, the local currency code, and the two reporting currencies for each company. Additionally, the CO_CONSOLIDATION table identifies the currency code that represents the reference currency for the company and the home currency that represents the group currency of the data mart. After identifying the currencies, the system extracts the corresponding currency amounts.

When a currency exchange rate does not exist in the source Infor ERP LN application, the analytic application retrieves the rate from the FINANCIAL_CUR_CONV table in the data mart.

Below are two examples of currency conversion calculations that the analytic application performs when populating the data warehouse. In both examples, the GROUP_CURRENCY console parameter is USD.

Examples

Company	Local currency	Reporting currency 1	Reporting currency 2	Reference currency
ABC	EUR	USD	CAD	
XYZ	EUR	PES	CAD	CAD

For Company ABC, the Reporting Currency 1 column stores the group currency (USD) of the data warehouse. During the extraction of fact data into the data warehouse, the analytic application maps values from the Reporting Currency 1 column to the group currency values in the data warehouse. No additional currency conversions in the data warehouse are required.

Company XYZ uses a Dependent currency system and does not store any of the company home currencies or the reference currency in USD. The analytic application performs the conversion from the local currency in EUR to the group currency in USD by using the exchange rates in the FINANCIAL_CURRENCY_CONV data warehouse table.

The analytic applications for Sales and Procurement include complex currency conversion derivations for the analytic applications to store document currency, local currency, and group currency values in the data warehouse. For more details about the currency conversion derivations, refer to the Infor *Enterprise Analytics Sales Analysis 2.8.2 for ERP LN Developer Guide* and the *Infor Enterprise Analytics Procurement Analysis 2.8.2 for ERP LN Developer Guide.*

Greenwich Mean Time (GMT) time zone conversions

The analytic applications data warehouse requires a common time zone to store and aggregate data in the correct time period. Infor ERP LN posts financial data in the time zone of the finance company. Infor ERP LN posts transactions from logistic companies to the Infor ERP LN database in Greenwich Mean Time (GMT). If you post a transaction late in the business day, the conversion to GMT in Infor ERP LN may cross over to a new date. When Infor ERP LN closes the logistic transactions to the finance company, the system converts the transactions from GMT to the time zone of the finance company for reporting purposes.

The data warehouse follows the same concept. The financial analytic applications extract and store financial transactions in the finance company time zone. For the logistic transactions, the analytic applications convert the date and time of the transaction from GMT to the time zone you specified using the Company Fiscal Variant Maintenance option in Infor Enterprise Analytics Configurator 2.8.2.

Using this option, for each logical company you assign the appropriate time zone and conversion factor from GMT to use during extraction of transactions. For more details about how to use this option, refer to the *Infor Enterprise Analytics Configurator 2.8.2 User Guide.*

Fiscal variant	Company	Company description	Time zone	GMT conversion factor
1	100	Company 100	EST	-4
1	101	Company 101	EST	-4
1	102	Company 102	CST	-5
1	103	Company 103	EST	-4

When the analytic applications extract sales, inventory, and procurement transactions to the data warehouse, the analytics applications convert each of the date columns that Infor ERP LN stores in GMT using the GMT Conversion Factor. For example, in the SALES_ORDER table, the TIME_SID column represents the transaction date in the Sales Order Line History table in Infor ERP LN. The analytic application maps the transaction date to the TIME_SID_GMT column, which represents the GMT date and time. Then, the analytic application uses the GMT conversion factor to convert the date and time and moves the converted date and time to the TIME_SID_GMT_CONV column. The analytic application then moves only the date to the TIME_SID column.

TIME_SID	COMPANY_CD	TIME_SID_GMT	TIME_SID_GMT_CONV
20070628	100	6/29/2007 01:00:00 AM	6/28/2007 09:00:00 PM

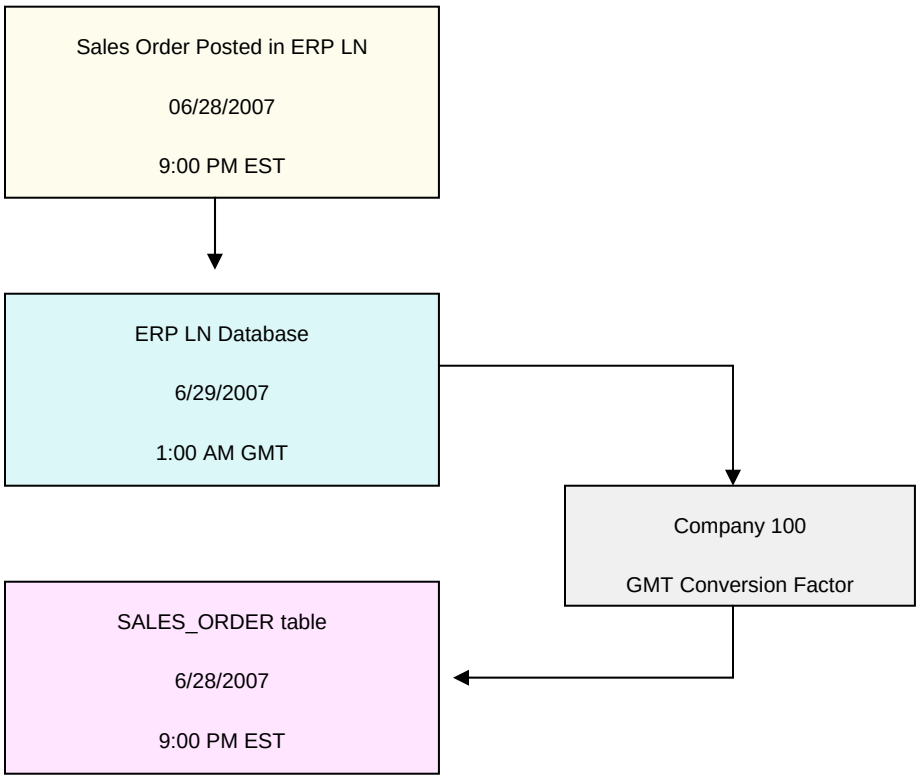

Figure 2-2: GMT time zone conversion

Timestamp columns

The analytic applications use the changed data capture method for incremental updates to the data warehouse. These incremental updates for dimension and fact data use the timestamp column, rcd_utc, which you must add to your Infor ERP LN database tables before you extract data. You use the Infor Worktop session, ttadv4136m000 – Table Timestamp Definitions, to specify the tables that the analytic applications use.

The value of the timestamp column, rcd_utc, is set to the zero date value, 01/01/1970 00:00:00. As records are added or modified in the Infor ERP LN database, Infor ERP LN sets the rcd_utc column to the date and time of the Infor ERP LN database server. This enables analytic applications to capture only new or changed data or incrementally load the data warehouse.

The value of the timestamp column in the Infor ERP LN database tables is critical to the initial load of fact data into the data warehouse. Since the timestamp column is set to 01/01/1970 00:00:00, the analytic application extracts all years of history during the initial load of the data warehouse.

If your implementation of the analytic application requires loading only the current year data and historical data for the previous two years, then you must manually change the rcd_utc column. We recommend that you set the rcd_utc timestamp column to the same date and time as the transaction date on the fact record. This enables the use of the Cognos Performance Applications Console system parameter MART_BEGIN_DATE to limit the number of years to load initially to the data warehouse.

To set the rcd_utc column to the transaction date and time manually, you can run the command below for the data warehouse.

Update *database schema.Infor ERP LN table name* **set** T$RCD_UTC = T$TRDT

For example, you can run the command, **Update BAAN.TTDSLS451100 set T$RCD_UTC = T$TRDT** to set the timestamp column for the Sales Order Line History table for Company 100.

For more information on how to add the timestamp columns to the Infor ERP LN database tables, refer to the Infor Enterprise Analytics 2.8.2 installation guide for any of the analytic applications.

Notes

Chapter 3 Data Mart Dimensions

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This chapter explains how the analytic applications populate the dimension tables in Infor Enterprise Analytics for ERP LN, based on the setup of your Infor ERP LN General Ledger, Accounts Payable, Accounts Receivable, Sales, Inventory, and Procurement applications.

This guide does not address dimensions that are not dependent upon the complex functionality of the Infor ERP LN application, such as Accounting Document Class. Refer to the Infor Enterprise Analytics 2.8.2 developer guides for the ERP source to data mart mapping for these dimensions.

The chapter consists of the following topics:

All Time

The All Time dimension is the most important dimension in the data warehouse schema because the majority of business questions that it supports address historical changes in various business measures. The All Time dimension is a conformed or shared dimension among each of the Infor Enterprise Analytics applications.

The All Time dimension is a combination of both fiscal and time calendars. Fiscal calendars represent the yearly periods for accounting purposes within an Infor ERP LN company. Infor ERP LN includes three different calendar or period types that you can define for each company: fiscal calendar, reporting calendar, and tax calendar. The analytic applications use only the fiscal calendars set up in Infor ERP LN. Based on the company's fiscal calendar, the analytic application adds the fiscal schema to the All Time table using a fiscal variant that you assign. You must assign the same fiscal variant in the data mart to companies that have the same calendar definitions.

Company	Period type	Starting period/name	End date last period	Number of accounting periods	Correction period used	Fiscal variant
100	Fiscal	1/January	12/31/2007	12	No	1
101	Fiscal	1/January	12/31/2007	12	No	1
102	Fiscal	1/January	12/31/2007	13	Yes	1
103	Fiscal	4/April	03/31/2008	13	Yes	4

You assign fiscal variants using the Company Fiscal Variant Maintenance option in the Infor Enterprise Analytics Configurator 2.8.2. Using the above example, Companies 100, 101, and 102 have a 12-period calendar year defined with the starting period, January. You assign these companies fiscal variant 1 in the data mart. Company 103 has a 13-period fiscal calendar year defined with the starting period, April. You assign fiscal variant 4 for Company 103 in the data mart.

For more information on how to assign fiscal variant values to Infor ERP LN companies, refer to the *Infor Enterprise Analytics 2.8.2 Configurator User Guide*.

The All Time dimension contains a row for each day of the calendar year for each fiscal variant. Therefore, this dimension may have the same calendar day repeated multiple times, once for each fiscal variant. The All Time dimension is joined to the fact tables by using the FISCAL_PERIOD_SID. The analytic application assigns a different FISCAL_PERIOD_SID to each calendar month and fiscal variant combination. The analytic application also assigns a different FISCAL_PERIOD_SID to the first calendar day of the month only; all subsequent days of the month are assigned the FISCAL_PERIOD_SID value, -1.

TIME_SID	FISCAL_ VARIANT	FISCAL_ PERIOD_SID	CALENDAR_ YEAR	CALENDAR_ MONTH	FISCAL_ YEAR	FISCAL_ MONTH
20070401	1	43	2007	4	2007	4
20070402	1	-1	2007	4	2007	4
20070401	4	29	2007	4	2007	1
20070402	4	-1	2007	4	2007	1

When correction periods are set up for a company in Infor ERP LN, the user does not enter a start date or end date for the correction period. When the ALL TIME dimension is created in the data warehouse, the correction periods are set up as separate periods and are assigned period start and end dates based on the prior period. The TIME_DIM_ID column in the ALL_TIME table is set to **1** for the correction periods, which ensures that the processes in the analytic applications that require unique period start and end dates perform properly.

TIME_SID	TIME_ DIM_ID	FISCAL_ VARIANT	FISCAL_YEAR	POSTING_ PERIOD	PST_PRD_ STRT_DT	PST_PRD_ END_DT
20071201	0	1	2007	12	20071201	20071231
20071201	1	1	2007	13	20071201	20071231

Each analytic application includes a set of Cognos 8 Business Intelligence Analysis Studio cubes that allow multidimensional reporting and time trending. To aggregate data from organizations that have both calendar and fiscal years defined, the Analysis Studio cubes are based on calendar periods for consolidated data.

Users must be familiar with their setup for the fiscal calendars when reviewing analytic information. Using the above example, the April period in an Analysis Studio cube represents period 4 for Companies 100, 101, and 102 but represents period 1 for Company 103.

If you are unable to set up a common reporting calendar in Infor ERP LN, confer with your Professional Services Consultant to create an alternative solution for consolidated reporting in Cognos 8 Business Intelligence.

Business Dimensions

In Infor ERP LN you can define a maximum of five financial dimension types. The financial dimensions represent the financial areas of responsibility within a company, for example, division or cost center. You post financial accounting transactions to a specific financial dimension.

Financial dimension	Dimension description
1	Cost Center
2	Product Line
3	Product Management
4	Project
5	Not Used

The financial dimension types are specific to the General Ledger analytic application. In the data warehouse, the BUSINESS_DIMENSIONS table stores these financial dimension types. The General Ledger analytic application extracts the values that you define for each of the financial dimension types in Infor ERP LN into five separate Business Dimension tables. This allows you to report on key performance indicators across multiple companies by product lines and subsidiaries.

You can set up the financial dimension types in Infor ERP LN in a reporting hierarchy that can have up to 10 levels. The General Ledger analytic application extracts the financial dimension hierarchies to allow data consolidation using Cognos 8 Business Intelligence. For example, values for financial dimension 1 and the reporting hierarchy are stored in the data warehouse table, BUSINESS_DIMENSION_1.

BUSINESS_ DIMENSION _SID	BUSINESS_ DIMENSION _CD	BUSINESS_ DIMENSION_NM	BD_ LEVEL_ 1_CD	BD_ LEVEL_1_ NM	BD_ LEVEL_2_ CD	BD_ LEVEL_2_ NM
1	CHI	Century Corp Chicago	NA	North America	US	United States
2	TOR	Century Distribution Toronto	NA	North America	CAN	Canada
3	LON	Century Manufacturing London	EU	Europe	EN	England
4	MUN	Century Manufacturing Munich	EU	Europe	GR	Germany

The General Ledger analytic application includes a set of predefined Cognos 8 Business Intelligence reports and multidimensional cubes for analyzing trends over time. The analytic application labels the report columns as Business Dimension 1 through Business Dimension 5. To customize reporting components to

use the description of the Financial Dimension Types that are stored in the data warehouse table, BUSINESS_DIMENSIONS, confer with your Professional Services Consultant.

Chart of Account

The analytic applications for Infor ERP LN extract the values for the Chart of Account dimension from the Infor ERP LN Chart of Accounts table, tfgld008. The Chart of Accounts dimension contains the posting level accounts that are associated with financial transactions in General Ledger, Accounts Receivable, and Accounts Payable.

To maximize the reporting and analysis available with the General Ledger analytic, you must define reporting hierarchies for balance sheet and income statement reports.

Level 1 code	Level 2 code	Level description	Accounts
100		Assets	
	110	Cash in Bank	02110-02112
	120	Marketable Securities	02141-02142
	130	Accounts Receivable	02210-02212
200		Liabilities and Equity	
	210	Current Liabilities	08110-08240
	220	Long Term Debt	10120-10121
	230	Retained Earning	16110-16110
300		Income	
	310	Sales	04100-04199
	320	Other Income	04200-04299
400		Expense	
	410	Cost of Sales	05100-05120
	420	Employee Costs	05200-05210
			05300-05310
			05350-05360
	430	Administrative Expense	05510-05520
	440	Travel Expense	05530-05535

In Infor ERP LN, you can set up the chart of accounts in a reporting hierarchy with up to 15 levels. You can use these Infor ERP LN reporting hierarchies or create separate reporting hierarchies in the data warehouse.

Using the Cognos Performance Applications console, you set the value of the COA_USE_LN_HIERARCHY user parameter to determine whether to extract the reporting hierarchy from Infor ERP LN. The default value

of the COA_USE_LN_HIERARCHY is **TRUE**. If you are not using the reporting hierarchies from Infor ERP LN, you must change the console parameter to **FALSE** prior to populating the data mart and then set up the reporting hierarchies by using the Infor Enterprise Analytics 2.8.2 Configurator Account Maintenance option. For more information on setting up account levels, refer to the *Infor Enterprise Analytics 2.8.2 Configurator User Guide.*

Note: You cannot import your reporting hierarchies or levels from Infor ERP LN and also use the Infor Enterprise Analytics 2.8.2 Configurator option to modify or maintain the reporting hierarchies. This ensures that you are using a single reporting hierarchy and that the hierarchy is the same for all Performance Management applications.

Company Consolidation

A company represents an Infor ERP LN working environment. You define an Infor ERP LN company as a finance company, logistic company, or both a finance and logistic company. Infor ERP LN uses a logistic company for logistic transactions, such as the production and transportation of goods. Infor ERP LN uses a finance company to post financial data. You link each logistic company to an enterprise unit that coordinates the financial transactions between the logistic and finance company. The analytic applications extract each of the companies into the data warehouse table, COMPANY_CONSOLIDATION.

In Infor ERP LN, each company is linked to a separate archived company number. When transactions are archived in the different analytic applications, Infor ERP LN moves the data from the live company to the archive company.

The analytic applications do not support the extraction of archived data and the merging of the live and archived data. You can confer with your Professional Services Consultant if your implementation of the analytic applications requires archived company data.

Customer

Infor ERP LN defines customers and suppliers as business partners. The Customer dimension describes the business partners in Infor ERP LN that are associated with Accounts Receivable and Sales transactions. The Accounts Receivable, Sales, and Procurement analytic applications use the Customer dimension. The dimension includes the following business partner roles:

- Sold to Business Partner (tccom110)
- Ship to Business Partner (tccom111)
- Invoice to Business Partner (tccom112)
- Pay by Business Partner (tccom114)

When you create a new business partner in Infor ERP LN, master data for the business partner is stored in the Infor ERP LN Business Partner Master table, tccom100. You assign roles to the business partner based on whether the business partner is a customer, supplier, or both. Infor ERP LN stores the business partner in the above listed auxiliary or role tables.

In a multicompany scenario in Infor ERP LN, companies can share business partner roles. The Accounts Receivable, Sales, and Procurement analytic applications support the two business partner sharing scenarios listed below.

For more information about the table-sharing best practice in Infor ERP LN, refer to the *Infor ERP LN 6.1 User's Guide for Multicompany Table Sharing.*

Scenario 1

Within the Business Partner Master table (tccom100) each logical company is associated with a physical company. The Business Partner Role tables, (for example, tccom110 and tccom111) use the same logical company and physical company associations that the Business Partner Master table contains.

In the table below, the logical companies 101 and 102 in the Business Partner Master table (tccom100) are associated with the physical company 100, and the logical company 103 is associated with the physical company 200. Therefore, the logical companies 101 and 102 in the Business Partner Role tables (tccom110 and tccom111) are associated with the physical company 100, and the logical company 103 is associated with the physical company 200.

Table	Logical company	Physical company
Business Partner Master		
tccom100	101	100
tccom100	102	100
tccom100	103	200
Sold to Business Partner		
tccom110	101	100
tccom110	102	100
tccom110	103	200
Ship to Business Partner		
tccom111	101	100
tccom111	102	100
tccom111	103	200
Invoice to Business Partner		
tccom112	101	100
tccom112	102	100
tccom112	103	200
Pay by Business Partner		
tccom114	101	100
tccom114	102	100
tccom114	103	200

Scenario 2

The same logical company is associated with the same physical company in all of the Business Partner role tables. However, the Business Partner Master table (tccom100) can contain different logical and physical associations.

In the table below, the logical companies 101 and 102 in all of the Business Partner Role tables (tccom110, tccom111, tccom112, and tccom114) are associated with the physical company 100. The logical company 103 is associated with the physical company 200. However, all of the logical companies in the Business Partner Master table (tccom100) are associated with the physical company 200.

Table	Logical company	Physical company
Business Partner Master		
tccom100	100	200
tccom100	101	200
tccom100	102	200
tccom100	103	200
Sold to Business Partner		
tccom110	101	100
tccom110	102	100
tccom110	103	200
Ship to Business Partner		
tccom111	101	100
tccom111	102	100
tccom111	103	200
Invoice to Business Partner		
tccom112	101	100
tccom112	102	100
tccom112	103	200
Pay by Business Partner		
tccom114	101	100
tccom114	102	100
tccom114	103	200

Valuation

The Valuation dimension contains the financial value or unit price of inventory items in Infor ERP LN. The Valuation dimension is a work table that populates the Stock Opening Balance and Stock Overview tables in the Infor Enterprise Analytics data warehouse. You should not include the Valuation dimension in reports.

The Infor ERP LN inventory costing methods are listed below.

Inventory costing method	Description
FTP	Fixed Transfer Price (standard costing)
MAUC	Moving Average Unit Cost
LOT	Lot Pricing
FIFO	First In First Out
LIFO	Last in First Out
SERIAL	Serial Pricing

The Inventory analytic application includes only Fixed Transfer Price, Moving Average Unit Cost, and Lot Pricing. The data warehouse does not include FIFO, LIFO, and SERIAL costing methods. Infor ERP LN does not physically store FIFO and LIFO costing values in the database. For inventory items that use FIFO or LIFO costing, the analytic application extracts the FTP value to the data warehouse. The data warehouse does not include item serialization, and for inventory items that use SERIAL costing, the analytic application extracts the FTP value to the data warehouse.

Vendor

Infor ERP LN defines customers and suppliers as business partners. The Vendor dimension describes the business partners in Infor ERP LN that are associated with Accounts Payable and Procurement transactions. The Vendor dimension is used in the Accounts Payable, Procurement, and Inventory analytic applications. The dimension includes the following business partner roles:

- Buy From Business Partner (tccom120)
- Ship From Business Partner (tccom121)
- Invoice From Business Partner (tccom122)

When you create a new business partner in Infor ERP LN, master data for the business partner is stored in the Infor ERP LN Business Partner Master table (tccom100). You assign roles to the business partner based on whether the business partner is a customer, supplier, or both. Infor ERP LN stores the business partner in the above listed auxiliary or role tables.

In a multicompany scenario in Infor ERP LN, companies can share business partner roles. The Accounts Payable, Procurement, and Inventory analytic applications support the two business partner sharing scenarios listed below.

For more information about the table-sharing best practice in Infor ERP LN, refer to the *Infor ERP LN 6.1 User's Guide for Multicompany Table Sharing.*

Scenario 1

Within the Business Partner Master table (tccom100) each logical company is associated with a physical company. The Business Partner Role tables (for example, tccom120 and tccom121) use the same logical company and physical company associations that the Business Partner Master table contains.

In the table below, the logical companies 101 and 102 in the Business Partner Master table (tccom100) are associated with the physical company 100, and the logical company 103 is associated with the physical company 200. Therefore, the logical companies 101 and 102 in the Business Partner Role tables (tccom120 and tccom121) are associated with the physical company 100, and the logical company 103 is associated with the physical company 200.

Table	Logical Company	Physical Company
Business Partner Master		
tccom100	101	100
tccom100	102	100
tccom100	103	200
Buy From Business Partner		
tccom120	101	100
tccom120	102	100
tccom120	103	200
Ship From Business Partner		
tccom121	101	100
tccom121	102	100
tccom121	103	200
Invoice From Business Partner		
tccom122	101	100
tccom122	102	100
tccom122	103	200

Scenario 2

The same logical company is associated with the same physical company in all of the Business Partner role tables. However, the Business Partner Master table (tccom100) can contain different logical and physical associations.

In the table below, the logical companies 101 and 102 in all of the Business Partner Role tables (tccom120, tccom121, and tccom122) are associated with the physical company 100. The logical company 103 is associated with the physical company 200. However, all of the logical companies in the Business Partner Master table (tccom100) are associated with the physical company 200.

Table	Logical Company	Physical Company
Business Partner Master		
tccom100	100	200
tccom100	101	200
tccom100	102	200
tccom100	103	200
Buy From Business Partner		
tccom120	101	100
tccom120	102	100
tccom120	103	200
Ship From Business Partner		
tccom121	101	100
tccom121	102	100
tccom121	103	200
Invoice From Business Partner		
tccom122	101	100
tccom122	102	100
tccom122	103	200

Notes

Chapter 4 Data Mart Facts

4

This chapter explains how the analytic applications populate the fact tables in Infor Enterprise Analytics for ERP LN, based on the setup of your Infor ERP LN applications.

This guide does not address fact tables that are not dependent upon the complex functionality of the Infor ERP LN application, such as GL Balance, Sales Order Activity, and Physical Inventory. Refer to the Infor Enterprise Analytics 2.8.2 developer guides for the ERP source to data mart mapping for these fact tables.

The chapter consists of the following topics:

Accounts Payable Activity

The Accounts Payable Activity business concept in the Accounts Payable analytic application uses two fact tables:

- AP_ACTIVITY_DETAIL

  Contains all of the measures of the accounts payable activities

- AP_ACTVTY_DOC

  Contains all non-additive information associated with each of these financial components

Infor ERP LN finalizes accounts payable transactions when you post them to the general ledger; however, Infor ERP LN updates the vendor balances with both finalized and non-finalized transactions. The Accounts Payable analytic application extracts only finalized transactions from the AP Open Items table, tfacp200. We strongly recommend that you finalize all financial transactions prior to loading the data warehouse. The analytic application may mark the transactions as closed without the non-finalized payments or adjustments loaded into the data warehouse.

Accounts Receivable Activity

The Accounts Receivable Activity business concept in the Accounts Receivable analytic application uses two fact tables:

- AR_ACTIVITY_DETAIL

  Contains all the measures of the accounts receivable activities

- AR_ACTVTY_DOC

  Contains all non-additive information associated with each of these financial components

Infor ERP LN finalizes accounts receivable transactions when you post them to the general ledger; however, Infor ERP LN updates the customer balances with both finalized and non-finalized transactions. The Accounts Receivable analytic application extracts only finalized transactions from the AR Open Items table, tfacr200. We strongly recommend that you finalize all financial transactions prior to loading the data warehouse. The analytic application may mark transactions as closed without the non-finalized payments or adjustments loaded in the data warehouse.

Financial Activity

The Financial Activity business concept in the General Ledger analytic application uses two fact tables:

- GL_ACTIVITY_DETAIL

  Contains all the measures of the general ledger activities

- GL_ACTVTY_DOC

  Contains all non-additive information associated with each of these financial components

Infor ERP LN finalizes financial transactions when you post them to the general ledger; however, Infor ERP LN updates the account balances with both finalized and non-finalized transactions. The General Ledger analytic application extracts only finalized transactions from the Finalized Transactions table, tfgld106. We strongly recommend that you finalize all financial transactions prior to loading the data warehouse. This enables you to reflect the organization's financial position properly in reporting and analysis.

Material Movement

The Material Movement fact table contains the transactions that are related to managing inventory. The inventory movement transactions include receipts, issues, and transfers of materials across plants or warehouses. Each time a material movement occurs, information such as the quantity of materials moved, the date the move occurred, and the material moved, the Inventory analytic application extracts information from the plants where the inventory movement occurred to the data warehouse.

When the analytic application extracts the material movement transactions to the data warehouse, it evaluates the Infor ERP LN inventory reporting parameters. When the inventory transaction history parameter is set to yes, the analytic application extracts material movement transactions from the Inventory Transactions by Stock Point table, whinr100. When the inventory transaction history parameter is set to no, the analytic application extracts material movement transactions from the Inventory Transactions by Item and Warehouse table, whinr110. This table does not include warehouse locations that could affect the areas of analysis in the data warehouse.

You should confer with your Professional Services Consultant to evaluate the effect of the transaction history parameter on the material movement analysis in the data warehouse.

Notes