Infor LN Analytics Foundation Installation and Configuration Guide

Contents

About this guide

The objective of this guide is to provide information about the installation and configuration of Infor LN Analytics Foundation.

Intended audience

This guide is intended for use by administrators, responsible for installing and configuring the Infor LN Analytics Foundation.

Organization

This table lists the chapters of this guide:

Chapter	Description
About Infor LN Analytics Foundation	Provides a brief explanation of the Infor LN Analytics Foundation.
Installation	Describes the process to install and configure Infor LN Analytics Foundation.
Post installation tasks	Describes the Business Vault related task that must be performed after installing Infor LN Analytics Foundation.
Post installation tasks for Reports and Dashboards	Describes the post installation tasks that must be performed for Infor LN Analytics Foundation and Business Vault.

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About Infor LN Analytics Foundation

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LN Analytics Foundation offers what business users in an organization require: a quick way to implement an advanced business intelligence environment for Infor LN. The application includes the most common metrics that business users require for sales, finance, production, and procurement analysis and reporting, making it easier for the users to accomplish daily tasks.

The application not only includes the content that is required from a business perspective but also manages the complex process of extracting, transforming and loading data from an ERP system into a BI environment, there by resolving the major problem experienced by companies when dealing with business intelligence.

Before the installation, you must familiarize yourself with the content of:

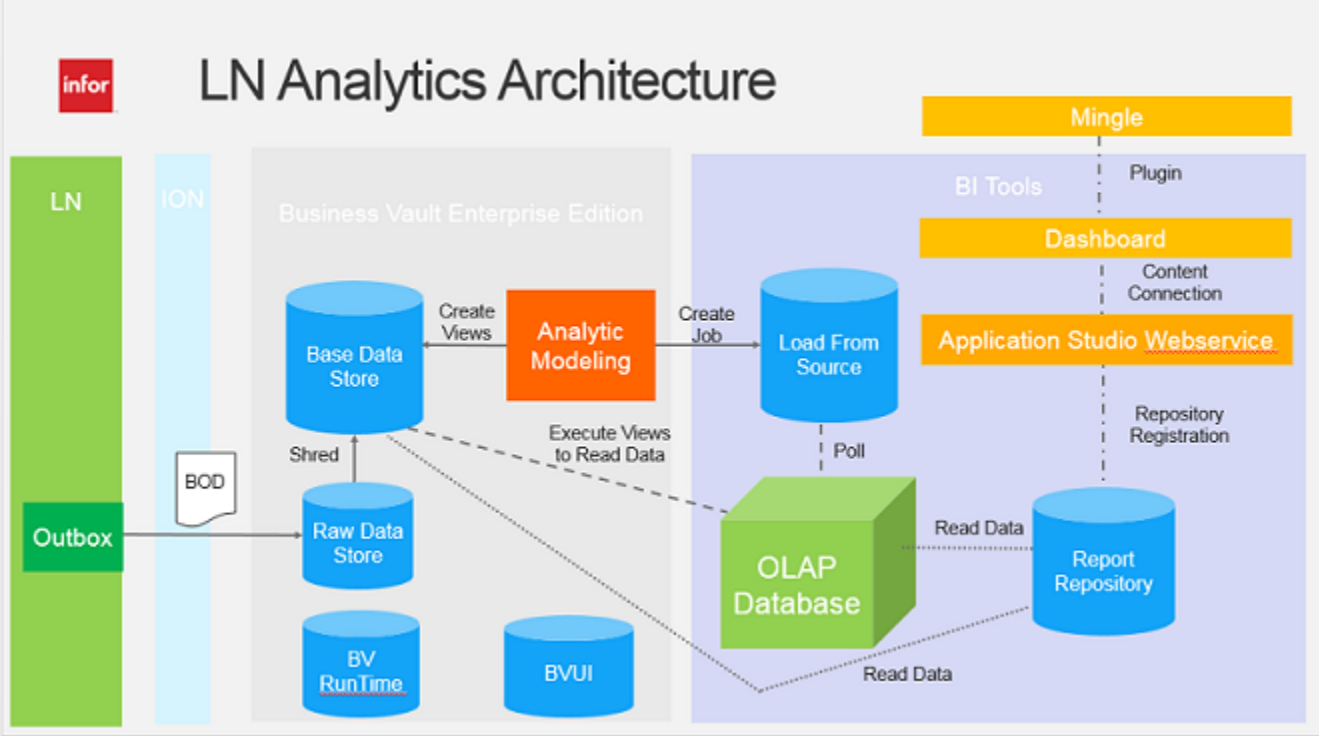
- Infor Connect documentation
- Infor Business Vault documentation
- Infor LN Integration Guide for Infor ION Business Vault
- Infor BI Installation Guide
- Infor BI Hardware Recommendations Guide
- Infor BI Platform Support.

You can find these documents in the Documentation section of the Infor Xtreme Support portal at http://www.infor.com/inforxtreme.

Use this guide as a reference at your site. This guide explains the process to use the Infor DVD Browser and administrative and user functions to complete specific setup and maintenance tasks.

Architecture

Infor LN Analytics offers an optimal solution to implement an advanced business intelligence environment for the ERP system. The solution includes the common metrics that are required by the users for Quality Testing analysis and reporting. This helps the users to accomplish the daily tasks effectively.



Using the LN Analytics solution, you can extract, transform, and load the data from an LN system to a BI environment. By default, the Infor suite manages the communication between modules and the storage data in the Business Vault.

The Business Vault is the central staging area. The ERP system can be connected to the vault using the standard ION connectors, custom-built ION connectors, or point-to-point integrations. When an ION connector is used, information corresponding to each transaction, posted in ERP, is converted to a standardized XML file, called a BOD (Business Object Document). This document is transferred to the Infor Business Vault using ION Connect. The information is stored in a raw data format and is automatically transformed to a relational schema in the Base Data Store, using a transformation process known as Shredding.

Business Vault Analytic Modeling is used for filling the OLAP database. Information to create the dimensions and cubes are published to the Load From Source database and the Base Data Store during a publication process. After that the OLAP database will find the published information in the Load From Source database and uses this information and the information in the Base Data Store to create dimensions and cubes.

The reports are reading data from the OLAP database and Base Data Store. Web services and plugins are used to display the reports and metrics in Infor Ming.le.

Installation

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The chapter describes the process to install LN Analytics Foundation. The chapter also lists the prerequisites for the installation process.

System requirements

Prerequisites for the LN analytics Foundation installation:

- SQL Server 2014
- SQL Server 2016

  Note: It is recommended to use the Simple Recovery model for the Base Data Store database.

- Windows
  - The installer does not work on Windows 10.
- Infor LN
  - Infor LN 10.3 or later.
  - At a minimum, PMC solutions from January through June 2017 in generic KB article 22945150. You must also install the solution components of the BO2.1 packages.
- Infor BI
  - Infor ION BI 11.0 tools (see Infor BI installation Guide):
    - Infor BI Application Studio 11.0.0.304 including Web Services
    - Infor BI Dashboards 11.0.0.211
    - Infor BI OLAP Server 11.0.0.330
    - Infor BI Repository 11.0.0.197

  Note:

  - When you install Infor BI OLAP Server on a separate server, you must also install Infor BI Repository on the same server. The Infor BI Repository version on both BI servers must be the same. Also ensure that both servers have the LN Analytics Foundation 10.5.2 repository registration.
  - Infor BI repository is part of the BI Application Studio, BI Dashboards, and BI OLAP Server setups.

  - The BI tools versions mentioned are minimum versions. The higher BI tools should take care of backwards compatibility. All BI tools should be compiled on the same Repository version. For more information, refer to generic KB article 655736.
  - For LN Analytics it is mandatory to install the ODBC driver for SQL Server on the Infor BI OLAP Server.
- ION
  - ION 11.1 including ION connect or higher.
- Business Vault
  - ION Business Vault Base Data Store 10.4.6
  - ION Business Vault Enterprise Edition 11.3.1

  Note:
  - In Business Vault, the database connection must point to the Base Data Store Database. Also, import the BOD mappings provided with the Base Data Store installation, to a data store definition that uses the same database connection.
  - Ensure that the LNProductionResult and LNVendorRating Bods are registered in the NounMetaDrop folder.

Other prerequisites: Infor Ming.le

Ensure the drillbacks are registered in Mingle.

Installation overview

You can install the latest version of LN Analytics Foundation 10.5.2 or you can upgrade an older version of the application. When you upgrade the existing environment to LN Analytics Foundation 10.5.2, the existing version is overwritten.

Note: Infor does not support multiple installations of the application, on one server.

Back up for existing tables

If you customize an existing Foundation database objects and/or if you create new database objects during installation, these components in the Base Data Store, are deleted:

- Tables with the prefix BI_ and some tables with prefix LN_
- Views with the prefix BI_ and LN_
- Stored Procedures with the prefix BI_ and BA_
- Functions with the prefix LN_ and BI_

Note:

- It is recommended that you take a backup of the customized database objects that can be deleted.
- Prior to this, the system creates a backup for the tables delivered by Infor, that contain user-configured data. The backup tables are saved in the Business Vault Base Data Store database with a time stamp in the existing table name_version_time stamp format. The tables created by a customer are not dropped, Also, a back up of these tables is not created.

  After the installation, you can migrate the data from the backup files to the new tables. The tables are created subject to normal housekeeping processes and routine. If the backup files are no longer required, you can delete the files.
- When customers make customisation in existing LN Analytics database object, they will lose the customisation after an upgrade. When customers make their customisation in a new database object the object name should not prefix with 'PCL_', 'QM_', 'BI_', 'BA_', 'LN_' or 'SRV_'. Otherwise the customized database objects will still be deleted. Use another prefix for the customized database objects.

Installing a new version

The new version overwrites the existing version, making the existing version obsolete.

For all installations, the installer overwrites:

- The existing LN Analytics Foundation related database objects in the Business Vault Base Data Store.

When a new version of the application is installed, not all existing components are overwritten, as some components are installed in a new path with a version specific component names.

Note:

- Infor does not support multiple installations of the application on one server.
- It is recommended to remove the components of the existing solution that are not deleted during the installation, after the new version is installed. See Chapter 5.

During an update of an existing version

When updating an existing version, the installer attempts to delete the existing components of the application and reinstall that component. Incase the installer is unable to delete these objects, you are prompted to delete the objects before you can complete the installation process.

Note: If you want to use the existing User Management configuration, select the **Export User Management Data** option to export User Management data before you delete the repository database and registration. After the installation, use **Import User Management Data** to import the exported User Management data.

Installer Component

This section describes the individual components in the installer. By default, the installer installs all the components on one server. To install specific components, click the drop-down box adjacent to the component and select 'X'.

Installing Repository Database and OLAP Database

This component:

- Installs the application Repository Database titled BA_Rep_LN_AF_10_5_2.
- Creates a repository registration titled LN Analytics Foundation 10.5.2.
- Installs the OLAP Database titled LN Analytics Foundation 10.5.2.
- Deploys SQL scripts to the Business Vault Base Data Store database. Refer to the "Backup BaseData Store" on page 10 section to identify the database objects to backup.
- Configures a Database Alias titled LNAnalyticsFoundation.
- Configures a Database Alias titled BV_BDS_Foundation.

Note: You must install these components on the system which hosts Infor BI OLAP Server.

To install LN Analytics Foundation, Repository Database and OLAP Database:

1. Run the LN Analytics Foundation installer Setup.exe .
2. On the Welcome to the Installation Wizard for Infor LN Analytics Foundation window, click **Next**.
3. In the Custom Installation window, select **LN Analytics Foundation**, **Repository Database**, and **OLAP Database** .
4. Click **Next**.
5. In the Database Server window, set **Server Type** to **SQL Server**, specify the name of the database server on which the Repository database must be installed and click **Next**.
6. Specify the name of the server, Business Vault Data Store database, user name and the password in the Database Server - Relational Alias (BV_BDS_Foundation) window.
   This information is used to configure the BV_BDS_Foundation relational alias.
7. Click **Next**.
8. In the Script Execution dialog box, specify the server name, database name, user name and password of the Business Vault Data Store in which the scripts must be executed. By default, the information is copied from the previous step.
9. Click **Next**.
10. In the Repository window, specify the name of the server on which the OLAP runs and click **Next**.
11. In the Ready to Install the Program window, click **Install**.
    The installation can take several minutes.
12. In the Installation Wizard Completed window, click **Finish**

    Note: The OLAP database is installed in the Database root directory of the BI OLAP server.

Copying Analytic Modeling files

This component is used to copy the Analytical Modeling zip files to the `LN Analytics Foundation 10.5.2\Analytic Modeling` sub folder of the installation folder. The default installation folder is `C:\Program Files (x86)\Infor\BI\.`

The Analytic Modeling files must be installed on a machine with a browser. You must have access to the Business Vault Enterprise Edition URL.

To copy the Analytical Modeler files:

1. Run the LN Analytics Foundation installer Setup.exe.
2. In the Welcome to the Installation Wizard for Infor LN Analytics foundation window, click **Next**.
3. In the Custom Installation window, select **Copy Analytic Modeling Files**. If required change the installation folder and click **Next**.
4. In the Ready to Install the Program window, click **Install**.
   The Installation can take several minutes.
5. In the Installation Wizard Completed window, click **Finish**.

Copying Dashboard files

This component is used to copy the LN Analytics Foundation.app_dashboards file to the `LN Analytics Foundation 10.5.2\Dashboards` sub folder of the installation folder. The default installation folder is `C:\Program Files (x86)\Infor\BI\`.

The dashboard files must be installed on a machine with a browser. You must have access to the BI Dashboard URL.

To install the dashboard file:

1. Run the LN Analytics Foundation installer Setup.exe.
2. In the Welcome to the Installation Wizard for Infor LN Analytics Foundation window, click **Next**.
3. In the Custom Installation window, select **Copy Dashboard Files**. If required change the installation folder and click **Next**.
4. In the Ready to Install the Program window, click **Install**.
   The installation can take several minutes.
5. In the Installation Wizard Completed window, click **Finish**.

Configuring Application Studio Web

This component is used to create an Application Studio Web Service. All LN Analytics are configured to a default Application Studio Web Service, titled LN_AnalyticsWebservice. If you want to reuse an

existing Application Studio Web Service, this component is not required. The Application Studio Web Service must be installed on the machine on which Application Studio Web Services is installed.

To configure the Application Studio Web:

1. Run the LN Analytics Foundation installer Setup.exe.
2. In the Welcome to the Installation Wizard for Infor LN Analytics Foundation window, click **Next**.
3. In the Custom Installation window, select **Configure Application Studio Web** and click **Next**.
4. In the Ready to Install the Program window, click **Install** to start the installation.

   In the Application Studio WebServices Name window, the default name LN_AnalyticsWebservice for the LN Analytics is displayed. This name is part of the URL used to access the LN Analytics Foundation reports through the Application Studio WebServices.
5. Click **Next**.
6. Select the method used to authenticate the Application Studio Web Services users.

   Note: When using Ming.le, you must use IFS.
7. Click **Finish**.
8. To restart IIS, click **Yes**.
9. In the Configuration Progress window, click **Close**.
10. In the Installation Wizard Completed window, click **Finish**.

Configuring Dashboards Web and Content Connection

This component is used to create a BI dashboard and a content connection titled LN Analytics Foundation. All LN Analytics are configured for a default Dashboard titled of LN_AnalyticsDashboard. If you want to reuse an existing Dashboard, this component is not required. The Dashboard feature must be installed on the machine on which BI Dashboards is installed.

To configure the Dashboard Web and Content connection:

1. Run the LN Analytics Foundation installer Setup.exe.
2. In the Welcome to the Installation Wizard for Infor LN Analytics Foundation window, click **Next**.
3. In the Custom Installation window, select **Configure Dashboards Web and Content Connections** and click **Next**.
4. In the Ready to Install the Program window, click **Install**, to start the installation.

   In the Infor BI Dashboard Name window, the default Dashboard name for Infor LN Analytics Foundation is displayed. This name is part of the URL used to access the LN Analytics Foundation Dashboards in Infor BI Dashboards.
5. Click **Next**.
6. In the dashboard Authentication window, select the method to be used to authenticate the Dashboards users.

Note: Select the method used to authenticate the Application Studio Web Services users. When using Mingle, you must use IFS.

7 Click **Finish**.

8 In the Configuration Progress window, click **Close**.

9 In the Installation Wizard Completed window, click **Finish**.

Note: This feature must be installed on the machine which hosts Infor BI Application StudioWebServices.

Post-installation: Filling the OLAP database 3

To fill the OLAP database, you must perform these tasks:

- Creating and configuring the OLAP LoadFromSource Database.
- Configuring Analytic Modeling in Business Vault.
- Executing the Publications

Creating and configuring the OLAP LoadFromSource database

The LoadFromSource database is the interface between the Business Vault and the Infor BI OLAP Server. The LoadFromSource database is a SQL Server relational database. From the Business Vault perspective this database is referred to as the 'target database', and from the OLAP Server perspective as the 'LoadFromSource database'. The Business Vault sends instructions to build dimensions, cubes, and load facts to the target database when dimensions and cubes are published. Infor BI OLAP Server reads instructions and processes jobs from the LoadFromSource database. First, you must create the LoadFromSource database and then configure the interface between the BI OLAP database and the LoadFromSource database. The interface between the Business Vault and the LoadFromSource database is configured later.

See *BI OLAP Server Administrator Manual*.

Creating the OLAP LoadFromSource database

1. In the SQL Server Management Studio, create a new database and specify a name such as, OLAP_LoadFromSource_BA.
2. In SQL Server Management Studio, create the tables for the LoadFromSource database by executing the CreateOlapMetada.sql script in the database.

   Note: The CreateOlapMetada.sql script is copied during the BI OLAP server installation and can be located in the bin64 folder of the BI OLAP server installation. The default path is: C:\ProgramFiles\Infor\BI\OLAP.

Configuring the OLAP LoadFromSource database in BI OLAP

The BI OLAP database must be configured so that the OLAP database can connect to the LoadFromSource database. The configuration process exists for setting the connection string and specifying the parameters that define the polling behavior of the OLAP database to the LoadFromSource database.

To configure the BI OLAP Server, execute these steps:

1. Access BI OLAP Administration and go to **Computer Configuration > Local Computer**. If the LN Analytics Foundation 10.5.2 database is not displayed, right-click on the Local computer and select **Add Database** to add the OLAP database.
2. In the LN Analytics Foundation 10.5.2 database section, select **Database Settings > LoadFromSourcedatabase > Connection string**.
3. Set the connection string.

   Examples of ODBC connection strings to the LoadFromSource database:

```
Driver={SQL Server};Server=MySERVERNAME;
Database=OLAP_LoadFromSource_BA;Trusted_Connection=Yes;

Driver={SQL Server};Server=MySERVERNAME;
Database=OLAP_LoadFromSource_BA;Trusted_Connection=No;UID=MySQLUser;
PWD=MySQLPassword;
```

4. In the LN Analytics Foundation 10.5.2 database, select **Scheduler Settings > Other > LoadfromSource** and set the value to **Yes**.
5. Select **Scheduler Settings > Other > LoadFromSource polling interval** and specify a value between **1** and **3**.
6. The modified settings of the OLAP database must be applied. Go to the Favorite Databases section and connect to the LN Analytics Foundation 10.5.2 database. If the database does not exist in the Favorite Database section, you must register the database.
7. Right-click database registration and select **Apply Runtime Settings**.

   Note:

   - A LoadFromSource database can only be used by one BI OLAP database. Therefore, when you resue a LoadFromSource database during an analytic upgrade, ensure that the LoadFromSource setting of the "old" olap database is set to False and changes are applied to runtime.
   - When the connection string in the BI OLAP database is incorrect, the logging information is displayed in the ALEAPR.txt OLAP log file.

Configuring Analytic Modeling in the Business Vault

After the Creating and Configuring the OLAP LoadFromSource step is completed, you must configure the Business Vault to fill the OLAP database with data. It is assumed that users are set up with the IFSroles and a standard database connection to a filled Base Data Store is available. These are the prerequisites to configure the Business Vault.

To configure the Analytic Modeling feature in Business Vault:

1. Creating a Database Connection
2. Importing and Setting up Models.
3. Setting up a Data Store.
4. Setting up an Application.
5. Importing the Publications and Definitions.
6. Setting up a Target.
7. Configuring Publications.
8. Configuring the Definitions.
9. Executing the Publications.

Creating a Database Connection

The database connection is used to connect the analytic to the Base Data Store. The Database connection created during the installation of the Base Data Store is not used to connect the analytic to the Base Data Store. Therefore, you must create a new database connection.

To create a database connection for LN Analytics Foundation:

1. Select **Administration > Database Connections**.
   The Database Connections page opens.
2. Click **New** and create a Standard Database Connection. Specify the **Name**, for example, LN Analytics Foundation Source and **Description**. Specify the database connection information to connect to the Base Data Store.
3. Click **Save**.

   Note:

   - Users must have the BVDatabaseAdmin privileges to execute this step.
   - Each analytic uses its own database connection for better customization control by the customer.

Importing and Setting up Models

Note: When you are upgrading from LN Analytics foundation 10.5 or previous version, it is recommended to refer to Known Issues chapter to avoid errors when importing the LN analytics Foundation Model.

Now you can import the models on the Standard database connection created in the "Creating a Database Connection" on page 19 section. For LN Analytics Foundation, you must import the following two models.

- Base Data Store Model (version 10.4.3)
- LN Analytics Foundation Model (version 10.5.2)

To import a model, use the Database Connections function. Database Connections is secured for users with the BVDatabaseAdmin role.

To import the models:

1. Select **Administration > Database Connections**.
   The Database Connections page opens.
2. Select the standard database connection that connects to the Base Data Store created in the "Creating a Database Connection" on page 19 section (For example, LN Analytics Foundation Source and click **drill-down**.
3. Select the **Models** tab and click **Import**.
   The Import Wizard opens.
4. Browse and select the Infor Base Data Store 10.4.3 model.zip.
   During the installation, the Analytic Modeling zip files are copied to the LN Analytics Foundation 10.5.2\Analytic Modeling sub folder of the default installation folder ..Program Files (x86)\Infor\BI.
5. Follow the Import Wizard and select **Overwrite existing definitions with the imported versions**. Click **Import**.
6. To import the LN Analytics Foundation Model, repeat step 2 to step 5, and select the LN Analytics Foundation 10.5.2 BV Model.zip file.
7. When the models are displayed under the **Available grid in the Model** Tab, use the arrow to move the Base Data Store Model and LN Analytics Foundation model to the Selected grid.
8. Add the models to the selected grid in the correct order. Move the Base Data Store Model to the bottom.

   Note:

   - When the same version of the Base Data Store model exists, you are not required to re-import the model.
   - The LN Analytics Foundation 10.5.2 LN Analytics Foundation model file overwrites the model file of any previous versions and the older LN Analytics Foundation analytic files are obsolete.
   - The delivered models are Infor-Locked . You can select and use an Infor-locked model within a database connection, but you cannot edit or delete the model or the objects in the model.

Setting up a Data Store

LN Analytics Foundation requires three Data Stores:

- The first data store is required to load the metadata mappings of the base data store.
- The second data store is required to load the metadata mappings of LN Analytics Foundation.

- The third data store is required for shredding LN Analytics Foundation specific BODs.

Note: To generate the SQL views, Analytic Modeling requires the Model and Data Store information.

Loading Base Data Store Metadata Mappings

To load the metadata for the Base Data Store, you must create a Data Store and import the BOD mappings.

1. Select **Analytic Modeling > Data Stores**.
2. Click **New**.
3. On the New Data Store page, specify the **Name**, for example, LN Analytics Foundation BDS Metadata, **Description** (For example, This data store should not be activated. It is for metadata purposes only), and **Database Connection**. For the database connection, select the database connection created in the "Creating a Database Connection" on page 19 section (For example, LN Analytics Foundation Source).
4. Click **Save**.
5. Import the Base Data Store BOD mappings into the new Data Store. Click **Import** and select the Business Vault BOD Mappings XXXX.zip. During the installation of the Base Data Store, the Business Vault BOD Mappings.zip file is copied to the server where the Base Data Store is installed.
6. Click **Save** to save the data store definition.

   Note: The status of the imported Metadata BOD Mappings and Data Store must always be set to **Inactive**. It is recommended to include this information in the **Description** of the data Store so that the status is not set to **Active**.

Loading LN Analytics Foundation Metadata Mappings

To load the metadata, for LN Analytics Foundation, you must create a new Data Store and import the BOD mappings.

1. Select **Analytic Modeling > Data Stores**.
2. Click **New**.
3. On the New Data Store page, specify the **Name** such as, LN Analytics Foundation Metadata, **Description** (For example, This data store should not be activated. It is for metadata purposes only), and **Database Connection**. For the database connection select the database connection created in the "Creating a Database Connection" on page 19 section (For example, LN Analytics Foundation Source).
4. Click **Save**.
5. Import the meta data for LN Analytics Foundation BOD mappings into the new Data Store. Click **Import** and select the LN Analytics Foundation 10.5.2 Metadata Data Store BOD Mappings.zip.

   During the installation, the Analytic Modeling zip files are copied to the LN Analytics Foundation 10. 5.2\Analytic Modeling sub folder of the default installation folder ..Program Files (x86) \Infor\BI\
6. Click **Save** to save the data store definition.

   Note:

- The status of the imported Metadata BOD Mappings and Data Store must always be set to **Inactive**. It is recommended to include this information in the Description of the data Store so that the status is not set to **Active** accidentally.
- When you upgrade from an earlier version of Foundation, the related Data Store is also available. It is recommended to delete the existing metadata Data Store and create a new Data Store. Ensure that no two Data Stores with BOD mappings of different Foundation versions exist on your system. In installation guides of previous Foundation versions, the metadata data store was referred to as LNAnalyticsFoundationDataStore and/or BA_METADATA.

Shredding LN Analytics Foundation specific BODs

To shred the LN Analytics Foundation specific BODs, you must create a new Data Store, import the BOD mappings and activate the BOD mappings and Data Store:

1. Select **Analytic Modeling > Data Stores**.
2. Click **New**.
3. On the New Data Store page, specify the **Name** such as, LN Analytics Foundation Data Store, **Description**, and **Database Connection**. For the database connection, select the database connection created in the "Creating a Database Connection" on page 19 section (For example, LN Analytics Foundation Source).
4. Click **Save**.
5. Import the LN Analytics Foundation specific BOD mappings into the new Data Store. Click **Import** and select the LN Analytics Foundation 10.5.2 LN Data Store BOD Mappings.zip.

   During the installation, the Analytic Modeling zip files are copied to the LN Analytics Foundation 10. 5.2\Analytic Modeling sub folder of the default installation folder ..Program Files (x86) \Infor\BI\.
6. Activate the BOD Mapping.
7. Activate the Data Store.
8. Click **Save** to save the data store definition.
9. Publish the LN Analytics Foundation specific BODs in LN to fill the Base Data Store.

   Note:

   - The LN Analytics Foundation specific BODs must be shredded in the Base Data Store. Therefore, BOD mapping and the status of the Data Store must be set to **Active**.
   - When you upgrade from an earlier version of Foundation, the related Data Store is also available. It is recommended to delete the existing Data Store and create a new Data Store. Ensure that no two Data Stores with BOD mappings of different Foundation versions exist on your system. In installation guides of previous Foundation versions, the LN Data Store data store was referred to as LNDataStore and/or LN_BDS.

Setting up an Application

To setup an application for LN Analytics Foundation:

1. Select **Administrations > Applications**.
   The Applications page opens.

2 Click **New** specify the application name (For example, LN Analytics Foundation and **Description** (For example, the version number of the analytic).

3 Click **Save**.

Note:

- During installation, Business Vault creates an application called Default, which is empty. When this default application is not used, you can also rename the Default application.
- When an older version of Foundation exists in Business Vault, the existing application can be renamed and a new application is not required.

Importing the Publications and Definitions

Import the publications, hierarchy, dimension, and cube definitions of LN Analytics Foundation. You can import the publications and definitions, using the Publication home page. You cannot select individual definitions in the import file.

During the import process the publications and definitions are associated with the database connection that was specified in the "Creating a Database Connection". The publications and definitions are also associated with the application that you are currently using.

Note:

- When you upgrade from an earlier version of LN Analytics Foundation, the existing definitions are overwritten. Therefore, before importing the definitions, it is recommended that you perform these tasks:
  - Note the current values of these dimensions present in the **Details** tab:
    - BA_FIGL_TIME_FISCAL
    - BA_PCXX_TIME_DELIVERY
    - BA_PCXX_TIME_ORDER
    - BA_PRXX_TIME_END
    - BA_PRXX_TIME_START
    - BA_SARE_TIME

    You can reuse these Time Dimension related values during the configuration process defined in the Configure the Definitions section of this chapter.
  - Create a definition to export these hierarchies when they are configured in the existing version:
    - Time cluster related:
      - BA_PCXX_STATUS_CLUSTER all statuses
      - BA_PROA_TIME_CLUSTER
  - When the Analysis dimension names are configured, create a translation export of the BA_FIGL_DIMENSIONS dimensions for which the dimension names are configured. Switch off The subordinate flag so that the dimension names are only included.

1 Ensure you are using the LN Analytics Foundation Application.

2 Select **Analytic Modeling > Publications**.

3 Click **Import**. The Import Wizard opens.

4 Click **Browse** and select the LN Analytics Foundation 10.5.2 AM Application Definitions and Publications 1of4.zip file to import.

During installation the Analytic Modeling zip files are copied to the `LN Analytics Foundation10.5.2\Analytic Modeling` sub folder of the default installation folder `..Program Files (x86)\Infor\BI\`

5 Follow the import wizard and select **Overwrite existing definitions with the imported versions**.

6 Select the **Database Connection** that connects to the Base Data Store. For the database connection, select the database connection created in the "Creating a Database Connection" on page 19 section (For example, LN Analytics Foundation Source).

7 Click **Import** to import the definitions. The imported hierarchies are displayed in the Hierarchies page. Imported dimensions are displayed in the Dimensions page, and the imported cubes are displayed in the Cubes page. The Last Updated By and Last Updated On columns are updated. If imported definitions overwrite existing definitions, a new definition version is added.

8 Repeat step 1 to 6 for the LN Analytics Foundation 10.5.2 AM Application Definitions and Publications 2of4.zip, LN Analytics Foundation 10.5.2 AM Application Definitions and Publications 3of4.zip, and LN Analytics Foundation 10.5.2 AM Application Definitions and Publications 4of4.zip files.

Setting up a target

The LoadFromSource database is the interface between the Business Vault and the Infor BI OLAP Server. In the "Creating and Configuring OLAP LoadFromSource Database" section of this chapter, the OLAP database is configured to communicate with the LoadFromSource database. In this section, the Business Vault is configured to communicate with the LoadFromSource database.

First, you must create a Target Database Connection.

Note: From Business Vault perspective, the LoadFromSource database is referred to as the Target database.

Second, you must setup a publication target definition, that uses the created publication target. In the publication target definition, you must also specify the locales in which the dimensions and cubes must be published.

Setting a target database connection

To create a target database connection:

1 Select **Administration > Database Connections**.

2 On the Database Connections page, select **New Target Database Connection** or click **Drill-down** to update an existing target database connection that identifies the database in which the dimension, cube definitions and data are published.

3 Specify all the required information to connect to the LoadFromSourceDatabase specified in the "Creating the OLAP LoadFromSource database" on page 17. For exanple, OLAP_LoadFromSource_BA.

   Specify a name for the target database connection, for example, LN Analytics Foundation Target.

4 Click **Test Connection** to test the database connection.

5 Click **Save**.

   Note: While saving, you may be required to specify the user and password information.

Setting up a publication target and specifying locales

A publication target allows you to specify the database connection and locales information required to publish cubes, dimensions, and cube facts.

To create a new publication target:

1 Select **Analytic Modeling > Publication Targets**. The Publication Targets page opens.

2 Click **New**.

3 Specify the required information such as **Name**, **Target Database Connection** and select the Locales that must be published to the OLAP database.

   Specify a name for the publication target such as, LN Analytics Foundation Target.

   Note:

   - The Default and one other locale are mandatory for each publication.
   - Select the Target Database connection that is created in the Setting a target database section. For example, LN Analytics Foundation Target

4 Click **Save** to save the publication target definition.

5 Click **Back** to return to the Publication Targets list.

6 Select the Publication Target and Activate.

Note: Infor recommends to minimize the number of locale as including more locales reduces the Cube Load performance.

The following locales are supported: Default, Chinese, Dutch, English, German, French, Italian, Portuguese, Russian, and Spanish.

Configuring Publications

A publication contains instructions about the dimensions and cube to be published to the BI OLAP database. A publication target allows you to specify the source of the data (Connection to the BaseData Store) and the target (Publication Target).

Ten publications are imported for LN Analytics Foundation:

- BA_000_COMMON_STATIC_DIMENSIONS
- BA_010_CALENDAR_DIMENSIONS
- BA_100_SALES_DIMENSIONS
- BA_150_SALES_CUBE
- BA_200_MANUFACTURING_DIMENSIONS
- BA_250_MANUFACTURING_CUBES
- BA_300_PROCUREMENT_DIMENSIONS
- BA_350_PROCUREMENT_CUBES
- BA_400_FINANCIALS_DIMENSIONS
- BA_450_FINANCIALS_CUBES

It is recommended that customers use the delivered publications to populate the cubes with relevant data. Customers can create own publications if required.

BA_000_COMMON_STATIC_DIMENSIONS

This publication loads all the static dimensions to the BI OLAP database. It is recommended to run this publication only once. Once the dimensions are present in the OLAP database, they will not change.

During the import of a publication, the target is not set for a publication.

To set the Target:

1. Select **Analytic Modeling > Publications**.
2. Go to the BA_000_COMMON_STATIC_DIMENSIONS publication.
3. On the **Details** tab, select the **Target** that connects to LN Analytics Foundation 10.5.2 BI OLAP Database such as, LN Analytics Foundation Target.
4. Click **Save**.

BA_010_CALENDAR_DIMENSIONS

This publication loads the time dimensions of all functional areas to the BI OLAP database. In principal this publication only needs to run the first time or after the From Year and / or To Year parameter values are changed in the pre-configured dimension.

During the import of a publication, the target is not set for a publication.

To set the Target:

1. Select **Analytic Modeling > Publications**.
2. Go to the BA_010_CALENDAR_DIMENSIONS publication.
3. On the **Details** tab, select the **Target** that connects to LN Analytics Foundation 10.5.2 BI OLAP Database such as, LN Analytics Foundation Target.
4. Click **Save**.

   Note: If you are creating your own publication ensure the following:

- The BA_XXXX_CALENDAR_CONFIGURE dimension must run first.

BA_100_SALES_DIMENSIONS

This publication loads the sales specific dimensions to the BI OLAP database.

During the import of a publication, the target is not set for a publication.

To set the Target:

1. Select **Analytic Modeling > Publications**.
2. Go to the BA_100_SALES_DIMENSIONS publication.
3. On the **Details** tab, select the **Target** that connects to LN Analytics Foundation 10.5.2 BI OLAP Database such as, LN Analytics Foundation Target.
4. Click **Save**.

BA_150_SALES_CUBE

This publication loads the sales cube into the BI OLAP database.

During the import of a publication, the target is not set for a publication.

To set the Target:

1. Select **Analytic Modeling > Publications**.
2. Go to the BA_150_SALES_CUBE publication.
3. On the **Details** tab, select the **Target** that connects to LN Analytics Foundation 10.5.2 BI OLAP Database such as, LN Analytics Foundation Target.
4. Click **Save**.

   Note: If you are creating your own publication ensure the following:

   - BA_150_SALES_CUBE publication must run directly after the BA_100_SALES_DIMENSIONS

BA_200_MANUFACTURING_DIMENSIONS

This publication loads the manufacturing specific dimensions to the BI OLAP database.

During the import of a publication, the target is not set for a publication.

To set the Target:

1. Select **Analytic Modeling > Publications**.
2. Go to the BA_200_MANUFACTURING_DIMENSIONS publication.
3. On the **Details** tab, select the **Target** that connects to LN Analytics Foundation 10.5.2 BI OLAP Database such as, LN Analytics Foundation Target.
4. Click **Save**.

BA_250_MANUFACTURING_CUBES

This publication loads the manufacturing cubes to the BI OLAP database.

During the import of a publication, the target is not set for a publication.

To set the Target:

1. Select **Analytic Modeling > Publications**.
2. Go to the BA_250_MANUFACTURING_CUBES publication.
3. On the **Details** tab, select the **Target** that connects to LN Analytics Foundation 10.5.2 BI OLAP Database such as, LN Analytics Foundation Target.
4. Click **Save**.

   Note: If you are creating your own publication ensure the following:

   - BA_250_MANUFACTURING_CUBES publication must run directly after the BA_200_MANUFACTURING_DIMENSIONS

BA_300_PROCUREMENT_DIMENSIONS

This publication loads the procurement specific dimensions to the BI OLAP database.

During the import of a publication, the target is not set for a publication. Therefore, the Target must be set manually

To set the Target:

1. Select **Analytic Modeling > Publications**.
2. Go to the BA_300_PROCUREMENT_DIMENSIONS publication.
3. On the **Details** tab, select the **Target** that connects to LN Analytics Foundation 10.5.2 BI OLAP Database such as, LN Analytics Foundation Target.
4. Click **Save**.

BA_350_PROCUREMENT_CUBES

This publication loads the procurement cube to the BI OLAP database.

During the import of a publication, the target is not set for a publication.

To set the Target:

1. Select **Analytic Modeling > Publications**.
2. Go to the BA_350_PROCUREMENT_CUBES publication.
3. On the **Details** tab, select the **Target** that connects to LN Analytics Foundation 10.5.2 BI OLAP Database such as, LN Analytics Foundation Target.
4. Click **Save**.

   Note: If you are creating your own publication ensure the following:

- BA_350_PROCUREMENT_CUBE publication must run directly after the BA_300_PROCUREMENT_DIMENSIONS

BA_400_FINANCIAL_DIMENSIONS

This publication loads the financial specific dimensions to the BI OLAP database.

During the import of a publication, the target is not set for a publication.

To set the Target:

1. Select **Analytic Modeling > Publications**.
2. Go to the BA_400_FINANCIAL_DIMENSIONS publication.
3. On the **Details** tab, select the **Target** that connects to LN Analytics Foundation 10.5.2 BI OLAP Database such as, LN Analytics Foundation Target.
4. Click **Save**.

BA_450_FINANCIAL_CUBES

This publication loads the financial cubes to the BI OLAP database.

During the import of a publication, the target is not set for a publication.

To set the Target:

1. Select **Analytic Modeling > Publications**.
2. Drill Down to the BA_450_FINANCIAL_CUBES publication.
3. On the **Details** tab, select the **Target** that connects to LN Analytics Foundation 10.5.2 BI OLAP Database such as, LN Analytics Foundation Target.
4. Click **Save**.

   Note: If you are creating your own publication ensure the following:

   - BA_450_FINANCIAL_CUBES publication must run directly after the BA_400_FINANCIAL_DIMENSIONS

Configuring Definitions

After the definitions are imported, some of the definitions must be configured:

- Configurations for Finance
  - Configuring Time Dimension
  - Configuring Account Mappings
  - Configuring Net Profit Loss

    - Configuring Analysis Dimension Names
- Configurations for Procurement
    - Configuring Time Dimension
    - Configuring Time Cluster
    - Configuring Completeness
- Configurations for Production
    - Configuring Time Dimension
    - Configuring Clusters
- Configurations for Sales
    - Configuring Time Dimension

Finance

Configuring Time Dimension

In Finance, the BA_FIGL_TIME_FISCAL dimension must be configured.

To specify the number of history years loaded into the Finance cube:

1. Select **Analytic Modeling > Dimensions**.
2. Go to the BA_FIGL_TIME_FISCALdimension.
3. Specify the required **Start Year** in the YYYY format.
4. Click **Save**.

Configuring Account Mappings

It is recommended that this procedure must be executed by a single user who has a complete understanding of the General Ledger charts of accounts that are affected.

LN Analytics Foundation includes a predefined reporting structure on which the pre-built dashboards and reports are based.

This reporting structure is predefined for these three taxonomies:

- German commercial law (HGB)
- International Financial Reporting Standard (IFRS)
- US Generally Accepted Accounting Principles (GAAP)

For IFRS and HGB, the two expense methods are:

- Cost of Sales Management

- Total Cost Accounting

Individual financial accounts must be mapped to a minimum of one taxonomy and one IFRS and HGB expense method. This enables the generation of balance sheets and Income Statements in the taxonomy, also the Dashboard, Cash flow report, and additional KPI reports.

Previously BA_FIGL_MEASURE_GL (Reduced) hierarchies had to be used to map chart of accounts from LN to predefined taxonomy accounts through direct mapping or rule based mapping. These hierarchies are replaced with new hierarchies.

Mapping takes place in LN and is published in the ChartOfAccount BOD. The new BA_FIGL_MEASURE_GL (Predefined Rules) hierarchies have rules that simply take over the mapping made in LN. No setup/mapping is required anymore in Analytic Modeling.

To assign chart of accounts to a taxonomy in Infor LN:

Download the zipped taxonomy spreadsheets from KB 1916987 in Infor Xtreme and extract the files to a local folder.

1. Select **Financials > Master Data > General Ledger > Structure > Taxonomies**. The Taxonomies (tfgld1170m000) session opens.

   Use the same menu path to access the Chart of Accounts (tfgld0508m000) session.

2. Import the taxonomy. Select **Actions > Export and Import > Import**. The Import (ttstpssiimp) session opens.

   In the File field, select the taxonomy file you want to import. You can import these files, GAAP_Taxonomy.xlsx, HGBTCA_Taxonomy.xlsx, HGBCSM_Taxonomy.xlsx, IFRSTCA_Taxonomy.xlsx, and IFRSCSM_Taxonomy.xlsx.

3. Import the taxonomy accounts.
   In the Taxonomies (tfgld1170m000) session, go to the details of the imported taxonomy and select the Taxonomy Accounts tab. Select **Actions > Export and Import > Import**. Select the appropriate taxonomy accounts file to import. The taxonomy accounts files are provided in the same KB as the taxonomy files.

   You can select from these GAAP_TaxonomyAccounts.xlsx, HGBTCA_TaxonomyAccounts.xlsx, HGBCSM_TaxonomyAccounts.xlsx, IFRSTCA_TaxonomyAccounts.xlsx, and IFRSCSM_TaxonomyAccounts.xlsx.

4. Ledger mapping.

   Select a taxonomy account with sub level 0 and select Ledger Mapping button to open the Ledger Mapping (tfgld1172m000) session. Add records for each range of ledger accounts that should be mapped to the specific taxonomy account. Continue to assign accounts until all relevant accounts are assigned

5. Validate taxonomy. After mapping is complete, validate your taxonomy and solve mapping errors if any.
6. Release taxonomy.

   Release the taxonomy to set the taxonomy Status to Active. The taxonomy can then be used for reporting. LN includes publishes latest version of active taxonomies in the ChartOfAccounts BOD.

   See LN session help, for taxonomy account mapping.

7. Repeat steps 2 to 7 for all the taxonomies, that can be used for reporting.

Note:

- Transactions which, for some reason, do not refer an existing General Ledger account in the ERP system, are automatically mapped to the element 9998, to avoid errors.

ERP GL Accounts that, have not been mapped to any GL Measure owing to errors, are validated for Type and Natural Sign and are mapped to 9999 Balance Asset or Liability or Profit and Loss, by the system.

For this error handling to be effective, you must not manually map to the elements 9998 or 9999. If you do not want an ERP GL Account to be mapped to the Measure_GL structure, map the account to 9997 in the appropriate taxonomy or leave the account unmapped. The system automatically maps the account to 9997.

Net Profit Loss

This task is applicable only if:

- You use HGB and/or IFRS, and
- You use only the Total Cost Accounting (TCA) expense method for Profit & Loss.

It is assumed that you use the Cost of Sales Management (CSM) expense method for Profit & Loss. In Analytic Modeling, a rule automatically puts the current year's Net profit/loss from the CSM instance (of the Net profit/loss account) into the balance liabilities.

Fo rCSM, the Net profit/loss account in MEASURE_GL is either K005HGBUKV or K005IFRSUKV based on the HGB or IFRS taxonomy used. The account suffix UKV indicates CSM.

However, if you use only TCA, the CSM instance of the Net profit/loss account is empty. Therefore, you must edit the rule in Analytic Modeling.

To calculate Net profit/loss for HGB or IFRS,based on the value of the TCA hierarchy:

1. Select **Analytic Modeling > Cubes**.
2. Go to BA_FIGL_FINANCE.
3. Select the **Cube Rules** tab.
   This rule is displayed:

```
<Alea:Rules xmlns:Alea="http://www.misag.com" Accelerated="false"
Selected="false" User="Admin" Time="Mar/15/2014 02:13:28,725">
    <Alea:Rule Cells="All" Enabled="true" RuleID="000000000000"
Selected="true" Type="Cube">
          <Alea:Target>[MEASURE_GL:'K043HGB'] </Alea:Target>
          <Alea:Formula>[MEASURE_GL:'K005HGBUKV']</Alea:Formula>
          <Alea:Description/>
     </Alea:Rule>
     <Alea:Rule Cells="All" Enabled="true" RuleID="0X0000980000"
Selected="true" Type="Cube">
          <Alea:Target>[MEASURE_GL:'K043IFRS'] </Alea:Target>
          <Alea:Formula>[MEASURE_GL:'K005IFRSUKV']</Alea:Formula>
```

```
          <Alea:Description/>
      </Alea:Rule>

      <Alea:Rule Cells="All" Enabled="true" RuleID="0X0001300000"
Selected="true" Type="Cube">
          <Alea:Target>[MEASURE_GL:'K043HGBUKV'] </Alea:Target>
          <Alea:Formula>[MEASURE_GL:'K005HGBUKV']</Alea:Formula>
          <Alea:Description/>
       </Alea:Rule>
       <Alea:Rule Cells="All" Enabled="true" RuleID="0X0001C80000"
Selected="true" Type="Cube">
          <Alea:Target>[MEASURE_GL:'K043HGBGKV'] </Alea:Target>
          <Alea:Formula>[MEASURE_GL:'K005HGBGKV']</Alea:Formula>
          <Alea:Description/>
       </Alea:Rule>
       <Alea:Rule Cells="All" Enabled="true" RuleID="0X0002600000"
Selected="true" Type="Cube">
          <Alea:Target>[MEASURE_GL:'K043IFRSUKV'] </Alea:Target>
          <Alea:Formula>[MEASURE_GL:'K005IFRSUKV']</Alea:Formula>
          <Alea:Description/>
       </Alea:Rule>
       <Alea:Rule Cells="All" Enabled="true" RuleID="0X0002F80000"
Selected="true" Type="Cube">
          <Alea:Target>[MEASURE_GL:'K043IFRSGKV'] </Alea:Target>
          <Alea:Formula>[MEASURE_GL:'K005IFRSGKV']</Alea:Formula>
          <Alea:Description/>
        </Alea:Rule>

        <Alea:Rule Cells="All" Enabled="true" RuleID="0X0003900000"
Selected="true" Type="Cube">
           <Alea:Target>[MEASURE_GL:'K043GAAP'] </Alea:Target>
           <Alea:Formula>[MEASURE_GL:'K005GAAP']</Alea:Formula>
           <Alea:Description/>
         </Alea:Rule>
```

4 If you use HGB with TCA, change line 1 of the rule from:

```
<Alea:Rule Cells="All" Enabled="true" RuleID="000000000000"
Selected="true" Type="Cube">
    <Alea:Target>[MEASURE_GL:'K043HGB'] </Alea:Target>
    <Alea:Formula>[MEASURE_GL:'K005HGBUKV']</Alea:Formula>
    <Alea:Description/>
</Alea:Rule>
```

to

```
<Alea:Rule Cells="All" Enabled="true" RuleID="000000000000"
```

```
Selected="true" Type="Cube">
    <Alea:Target>[MEASURE_GL:'K043HGB'] </Alea:Target>
    <Alea:Formula>[MEASURE_GL:'K005HGBGKV']</Alea:Formula>
    <Alea:Description/>
</Alea:Rule>
```

5 If you use IFRS with TCA, change line 2 of the rule from

```
<Alea:Rule Cells="All" Enabled="true" RuleID="0X0000980000"
Selected="true" Type="Cube">
     <Alea:Target>[MEASURE_GL:'K043IFRS'] </Alea:Target>
     <Alea:Formula>[MEASURE_GL:'K005IFRSUKV']</Alea:Formula>
     <Alea:Description/>
</Alea:Rule>
```

to

```
<Alea:Rule Cells="All" Enabled="true" RuleID="0X0000980000"
Selected="true" Type="Cube">
     <Alea:Target>[MEASURE_GL:'K043IFRS'] </Alea:Target>
     <Alea:Formula>[MEASURE_GL:'K005IFRSGKV']</Alea:Formula>
     <Alea:Description/>
</Alea:Rule>
```

Configuring Analysis Dimension Names

The Finance domain contains ten analysis dimensions. These analysis dimensions can be used in the reports to filter, and analyze the codes. The names of the dimension range from BA_FIGL_DIMENSION01 to BA_FIGL_DIMENSION10. The application generates the dimensions from the code lists defined in the BOD accounting chart. Because the dimensions do not have fixed content, the application assigns generic display names such as, 'Analysis Dimension 1', 'Analysis Dimension2'. You can modify the display names and use the appropriate names for each installation.

Note: Modify only the localized display names. The default language is generic.

To change the display names of the analysis dimensions, execute these steps:

1. Select **Analytic Modeling > Dimensions**.
2. Select the dimensions to be translated. You can translate multiple dimensions in a single export or import operation.
3. Click **Export** and select **Translations** in the Export Wizard.
4. Open the excel file.
5. Update the translations for the displayName for the required languages.

6 Save the excel file in the same structure as that of the zipped files (the folder must contain the ReadMe.txt file).

Note: You can import the dimension names if you are upgrading from an earlier version of Analytics Foundation with the analysis dimension names. The Import the Definitions section of this chapter includes the information about the export of the translations for the financial dimensions that are renamed. This export file can be re-imported including the dimension names.

7 Import the file in Analytic Modeling.
   a Select the file.
   b Select the required Database Connection.
   c Click **Import**.

8 Publish the changes to OLAP Server.
   Select **Analytic Modeling > Publications** and execute the publications that include the modified dimensions.

Identifying the analysis dimensions used

If you do not know the analysis dimensions that are used, publish the dimensions and view the reports on the Finance dashboard to view the Analysis Dimension lists populated.

Procurement

Configuring the Time Dimension

In Procurement, the BA_PCXX_TIME_DELIVERY and BA_PCXX_TIME_ORDER dimensions must be configured.

To specify the number of years of history that must be uploaded to the Procurement cube:

1 For the Time Delivery dimension:
   a Select **Analytic Modeling > Dimensions**.
   b Go to the BA_PCXX_TIME_ DELIVERY dimension.
   c Specify the required **From Year** in the YYYY format.
   This date is the earliest date in the Time dimension when the Procurement domain is created.
   d Specify the required **To Year** in the YYYY format.
   e Click **Save**.

2 For the Time Order dimension:
   a Select **Analytic Modeling > Dimensions**.
   b Go to BA_PCXX_TIME_ORDER dimension.
   c Specify the required **From Year** in the YYYY format.

This date is the earliest date in the Time dimension when the Procurement domain is created.

d Specify the required **To Year** in the YYYY format.

e Click **Save**.

Configuring Time Clusters

The Status Cluster dimension contains time intervals for age analysis for the deliveries that are Early, On-time, or Late.

These are the measures for delivery performance in Procurement:

- Actual delivery time versus promised delivery time
- Actual delivery time versus required delivery time
- Promised delivery time versus required delivery time

By default, each of these types are allotted six time clusters to represent the deliveries that are late and six are allotted to represent the deliveries that are early. The time clusters are defined in hours. For example, the '3 to 5 days' early cluster starts at -72 hours and ends at -120 hours and the '3 to 5 days' late cluster starts at 72 hours and ends at 120 hours. You can modify the labels of the clusters and the number of hours. You can also localize the customizable elements of the hierarchy.

There is only one On-time cluster.

Note: This procedure requires input from a business user who can make the required decisions with regards to the type of periods, which can be considered as Late or Early.

To edit the time clusters, update the hierarchy in Analytic Modeling first. The changes must also be later applied to the Base Data Store.

1 In Analytic Modeling:

a Select **Analytic Modeling > Hierarchies**.

b Go to BA_PCXX_STATUS_CLUSTER all statuses hierarchy.

c Do not modify the default language display names on the **Tree** tab, as the names are generic. You can only change the localized display names (see steps g to k)

d On the **Details** tab, edit the attribute for the time range (RANGE field) with the required number of hours. Retain the other attributes as the reports may rely on the settings.

e Click **Save**.

f Click **Back** to access the Hierarchies List.

g Select the hierarchy BA_PCXX_STATUS_CLUSTER all statuses.

h Click **Export** and select **Translations** in the Export Wizard.

i Open the excel file.

j Update the translations for the displayName for the required languages.

k Save the excel file in the same structure as that of the zipped files (the folder must also contain the ReadMe.txt file).

l Import the file in Analytic Modeling.

1 Select the file.

2 Select the required Database Connection.

3 Click **Import**.

2 In the Base Data Store Database:

a Run the appropriate database management tool.For example, SQL Server Management Studio.

b Expand the Base Data Store database.

By default, the Base Data Store database is named BV_BDS.

c Expand **Tables**.

d Right-click dbo.BI_MAN_PCXX_STATUS_TIMECLUSTER_DEF table and select Edit Top 200 Rows.

The columns of the table and the current values are displayed.

e In the TO_HOURS column, edit the cluster values as required(must be identical to the hierarchy in Analytic Modeling).

3 Publish the changes to OLAP Server.

Select **Analytic Modeling > Publications** and execute the publications that include the modified dimensions.

Note: When you are upgrade from an earlier version of the Analytics Foundation and if the time cluster is customized, the configured Base Data Store table values are stored in a table with an identical name such as dbo. BI_MAN_PCXX_STATUS_TIMECLUSTER_DEF _<VERSION>_<TIMESTAMP>. These values can be used to set the correct values again in BI_MAN_PCXX_STATUS_TIMECLUSTER_DEF

The analytic modeling configuration for the BA_PCXX_STATUS_CLUSTER all statuses hierarchy are stored in an export file as mentioned in the Import the Definitions section. This export file can be imported again and the configured dimension BA_PCXX_STATUS_CLUSTER all statuses hierarchy is displayed again.

Configuring Completeness

These measures can be configured:

- Number of order lines shipped complete
- Number of order lines undershipped
- Number of order lines overshipped

Typically, there is some tolerance for variances between the quantities ordered and the quantities actually delivered. The tolerance is defined using minimum and maximum values.

- If the quantity delivered ranges between the minimum and maximum values, the quantity is considered complete.
- If the quantity delivered is less than the minimum value, the quantity is undershipped.
- If the quantity is greater than the maximum value, the quantity is considered as overshipped.

The minimum and maximum values are specified as percentages. By default, the minimum value is set to 3% and the maximum value to 10%. You can modify these values in the Base Data Store database

To modify the tolerance values connect to the Base Data Store:

1. Run the appropriate database management tool. For example, SQL Server Management Studio.
2. Expand the Business Vault database.
   By default, the Base Data Store database is named BV_BDS.
3. Expand **Tables**.
4. Right-click dbo. BI_MAN_PCXX_COMPLETE_QTY_DEF table and select Edit Top 200 Rows.
   The columns of the table and the current values are displayed.
5. In the PERCENTAGE_DIFF_FROM_COMPLETE column, edit the values as required.

   Note: When you are upgrade from an earlier version of the Analytics Foundation and if the completeness is customized, your configured Base Data Store table values are stored in a table with an identical name such as dbo. BI_MAN_PCXX_COMPLETE_QTY_DEF_<VERSION>_<TIMESTAMP>. These values can be used to set the correct values again in BI_MAN_PCXX_COMPLETE_QTY_DEF.

Production

Configuring the Time Dimension

In Production, the BA_PRXX_TIME_END and BA_PRXX_TIME_START dimensions must be configured to specify the number of years of history that is uploaded to the Production cube:

1. For the Time Start dimension:
   a. Select **Analytic Modeling > Dimensions**.
   b. Go to the BA_PRXX_TIME_START dimension.
   c. Specify the required **From Year** in the YYYY format.
      This date is the earliest date in the Time dimension when the Production domain is created.
   d. Specify the required **To Year** in the YYYY format.
   e. Click **Save**.
2. For the Time End dimension:
   a. Select **Analytic Modeling > Dimensions**.
   b. Go to the BA_PRXX_TIME_END dimension.
   c. Specify the required **From Year** in the YYYY format.
      This date is the earliest date in the Time dimension when the Production domain is created.
   d. Specify the required **To Year** in the YYYY format.
   e. Click **Save**.

Configuring Time Clusters

The TIME_CLUSTER dimension contains time intervals for age analysis orders that are Early, On-time, and late. There are 14 time clusters for late orders and 14 for early orders. For example, '1 to 3 months' late or '3 to 5 days early'. There is only one cluster for On-time orders. The time clusters intervals are defined in hours. For example, if '3 to 5 days' early, the cluster starts at -72 hours and ends at -120 hours. You can also modify the labels of the clusters and the number of hours that define the cluster boundaries.

See "Localizing customized hierarchies or elements in the OLAP model"on page 30.

Note: This procedure requires input from a business user in Production who can make the required decisions with regards to the type of periods that can be considered Late or Early.

To edit the time clusters, the hierarchy in Analytic Modeling must be updated first. The changes must also be applied to the Business Vault Database.

1 In Analytic Modeling:

a Select **Analytic Modeling > Hierarchies**.

b Go to the BA_PROA_TIME_CLUSTER hierarchy.

c Do not change the default language display names on the **Tree** tab, as the names are generic. You can only change the localized display names (see steps g to k).

d On the **Details** tab, edit the attribute for the time range (RANGE field) with the required number of hours. Retain the other attributes as the reports may rely on the settings.

e Click **Save**.

f Click **Back** to access the Hierarchies List.

g Select the BA_PROA_TIME_CLUSTER hierarchy.

h Click **Export** and select **Translations** in the Export Wizard.

i Open the excel file.

j Update the translations for the displayName for the required languages.

k Save the excel file in the same structure as that of the zipped files (the folder must also contain the ReadMe.txt file).

l Import the file to Analytic Modeling.

1 Select the file.

2 Select the required Database Connection.

3 Click **Import**.

2 In the Base Data Store:

a Run the appropriate database management tool. For example, SQL Server Management Studio.

b Expand the Base Data Store database.

By default, the Base Data Store database is named BV_BDS.

c Expand **Tables**.

d Right-click dbo.BI_MAN_PRD_TIME_CLUSTER_DEF and select **Edit Top 200 Rows**.

The columns of the table and the current table values are displayed.

e Edit the cluster values as required (must be identical to the hierarchy in Analytic Modeling).

3 Publish the changes to the OLAP Server. Select **Analytic Modeling > Publications** and execute the publications, which include the modified dimensions.

Note: When you upgrade from an earlier version of the Analytic Foundation and the time cluster is customized, the configured Base Data Store table values are stored in a table with an identical name such as dbo.BI_MAN_PRD_TIME_CLUSTER _<VERSION>_<TIMESTAMP>. These values can be used to set the correct values again in BI_MAN_PRD_TIME_CLUSTER.

The analytic modeling configuration for the BA_PROA_TIME_CLUSTER hierarchy are stored in an export file as mentioned in the Import the Definitions section. This export file can be imported and the configured dimension BA_PROA_TIME_CLUSTER hierarchy is present again.

Sales

Configuring Time Dimension

In Sales, the BA_SARE_TIME dimension must be configured.

To specify the number of years of history that are loaded to the Sales cube:

1 Select **Analytic Modeling > Dimensions**.
2 Go to Go to BA_SARE_TIME dimension.
3 Specify the required **From Year** in the YYYY format.

The date that you specify is the earliest date in the Time dimension when the Production domain is created.

4 Specify the required **To Year** in the YYYY format.
5 Click **Save**.

Executing the Publications

You can execute the publications on demand or automatically based on a schedule.

To create the dimensions and cubes, execute these steps:

1 Execute the publication on demand.
   a Select **Analytic Modeling > Publications**.
   b Select the delivered publication and click **Publish**.
   c To view the result, select **Monitoring > Publication Monitor**.
2 Execute the publication on a regular basis.
   a Select **Analytic Modeling > Publications Schedules**.
   b Create the required publication schedules and set the recurrence pattern.
   c Click **Activate** to activate the publication.

Note: You must execute the ten delivered publications in alphabetical order. When the requirements (See Configuring Publications section) are met for the BA_000_COMMON_STATIC_DIMENSIONS and BA_010_CALENDAR_DIMENSIONS publications, there is no need to republish these publications.

You must execute the dimension publication of a functional area before the cube publication of the corresponding functional area. Dimensions must be created before the cubes in the BI OLAP database.

Post-installation tasks for Reports and Dashboards

4

You must complete the post installation tasks for the reports and dashboards, after the Infor LN Analytics Foundation installation and the Business Vault Analytic Modeler post installation tasks are complete.

These tasks must be performed:

- Configuration in Application Studio.
- Configuring Repository Administration with IFS.
- Configuring Dashboard servicePlugin in Mingle.
- Configuring online help files.
- Importing LN Analytic Foundation dashboards.

Configuration in Application Studio

In the Application Studio, connect LN Analytics repository database using repository registration that is created during the installation process and looks like LN Analytics Foundation <version number>. The user name to connect is Admin. The password is not required.

Do the following:

- In the Database Structure section, verify that the BV_BDS_Foundation and LNAnalyticsFoundation database connections are working. If required change the database and authentication settings. Make sure that you set the **Connect at log-on** option to yes. After testing right-click the database connection and select **Logon**.
- Verify the default value of the _CurrentLanguage variable. Select **Accessories > Global Variables**. Right-click the _CurrentLanguage variable and select the **Manage Values** for **Variables** option. Change the default value to English, if it is set to a different value and click **OK**.

Configuring Repository Administration with IFS

If a dashboard is configured to the IFS, the repository must also be configured to the IFS.

1. Select **Start > All Programs > Business Intelligence > Repository Administration** .
2. Right-click **Repository Administration** and select **Run as Administrator**.
3. Right-click **User Management** and select **Authentication Systems**.
4. Select the Infor Fedration Services and provide the required information. You can register an IFS group or user. Assign the required roles to the selected user(s). See BI installation guide.

Configuring Dashboard Plug-in in Infor Ming.le

See BI Installation Guide.

Import Dashboards

In LN Analytics Foundation dashboards are delivered. However these dashboards must be imported.

To import the dashboards:

1. Login to Mingle
2. Go to Dashboard. Else, you must connect to your dashboard service URL as specified in the Configure Dashboards Web and Content Connections section of the Installation chapter.
3. In the Share icon, select Import Dashboards.
4. In the Import wizard, on the **Source** and **Target** Tab, specify the Import File by selecting the LN Analytics Foundation.app_dashboards file from the `LN Analytics Foundation 10.5.2\Dashboards` sub folder of your installation folder (default ..`\Program Files (x86)\Infor\BI`). Also specify the Target Folder and click **Next**.

   Note: When selecting the app_dashboards file change the file extension filter to All files *.* on the **Choose File to Upload** dialog box
5. On the **Dashboards** tab, select all dashboards and click **Next**.
6. On the **Content Connections** tab, select your existing Content connection and click **Next**.
7. On the **Summary** tab, click **Finish**.

The LN Analytics Foundation dashboards are displayed on the **Dashboards** tab.

Assigning users to Application roles

Application roles help to improve the usability of the role-based BI security. These roles can be used to restrict users's access to reports and dashboards.

LN analytics Foundation includes the following user defined application roles:

- BA_Finance: LN Analytics Foundation role which enables viewing of all Finance report and dashboard content.
- BA_Procurement: LN Analytics Foundation role which enables viewing of all Procurement report and dashboard content.
- BA_Production: LN Analytics Foundation role which enables viewing of all Production report and dashboard content.
- BA_Sales: LN Analytics Foundation role which enables viewing of all Sales report and dashboard content.

Note:

Instead of adding users directly to the roles, customers can also create User groups and assign the user group to the role. Then assign the user to the User group. For more information on BI security, refer to the *Infor BI documentation*.

Adopting Infor Business Intelligence Self Service

Infor Business Intelligence includes a Self Service report package and dashboard, which can be used on top of the LN Analytics content. For more information, refer to KB 1668242. You can find the Application Studio version that is used to develop the Self Service report package in the Self-Service_version.txt file. This file is included in the zip file that is downloaded.

Importing LN Analytics Administration Reports

LN Administrative reports can be downloaded from KB 1873184. The report package file can be imported to the repository database.

Removing Components of Older Releases 5

When you install a newer version of analytic while an older version exists, all the old components are not deleted automatically.

It is recommended to manually delete these old components:

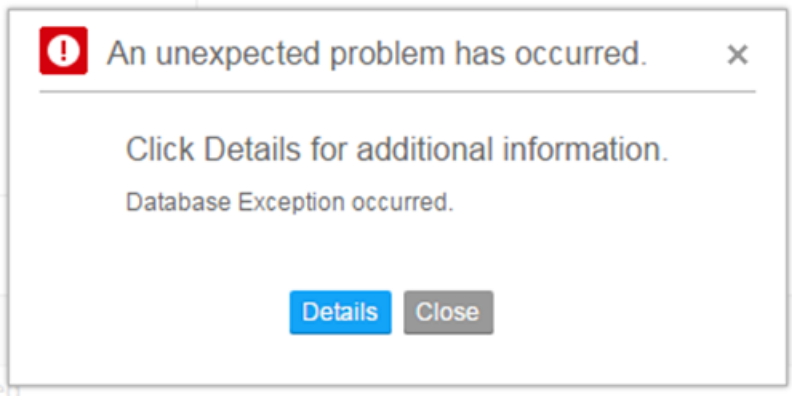
- Repository registration: The repository registration can be deleted in Infor BI Repository Administration.
- Repository Database: The repository database can be deleted using SQL Server Management Studio or together with the repository registration using the **Delete Database** option in Infor BI Repository Administration.
- OLAP Database: The OLAP database can be removed by deleting the OLAP database folder from the Database Root Directory of the BI OLAP server. To delete the OLAP database, you must stop the OLAP database using the BI OLAP Administration.
- Analytic Modeling and Dashboard files: The Analytic Modeling and Dashboard files are copied to a version specific subfolder of the installation folder used during installation. Delete the subfolder that such as LN Analytics Foundation <X.Y.Z>, where X,Y,Z are numbers that match with the version number. The default installation folder is `C:\Program Files (x86)\Infor\BI`.
- From LN Analytics 10.5.2 the online help is not delivered anymore but accessible online. Therefore, you can remove the online help files of previous LN Analytic QM releases. These help files are present in the `WebServices\Help\QM` subfolder of the Application Studio installation folder. The default installation folder of Infor BI Application Studio is `C:\Program Files (x86)\Infor\BI\Application Studio`.
- From LN analytics 10.5.1, Infor delivers publications. In previous versions, customers had to manually create publications. These publications can be removed as the delivered publications can replace the same in the OLAP database

Known Issues

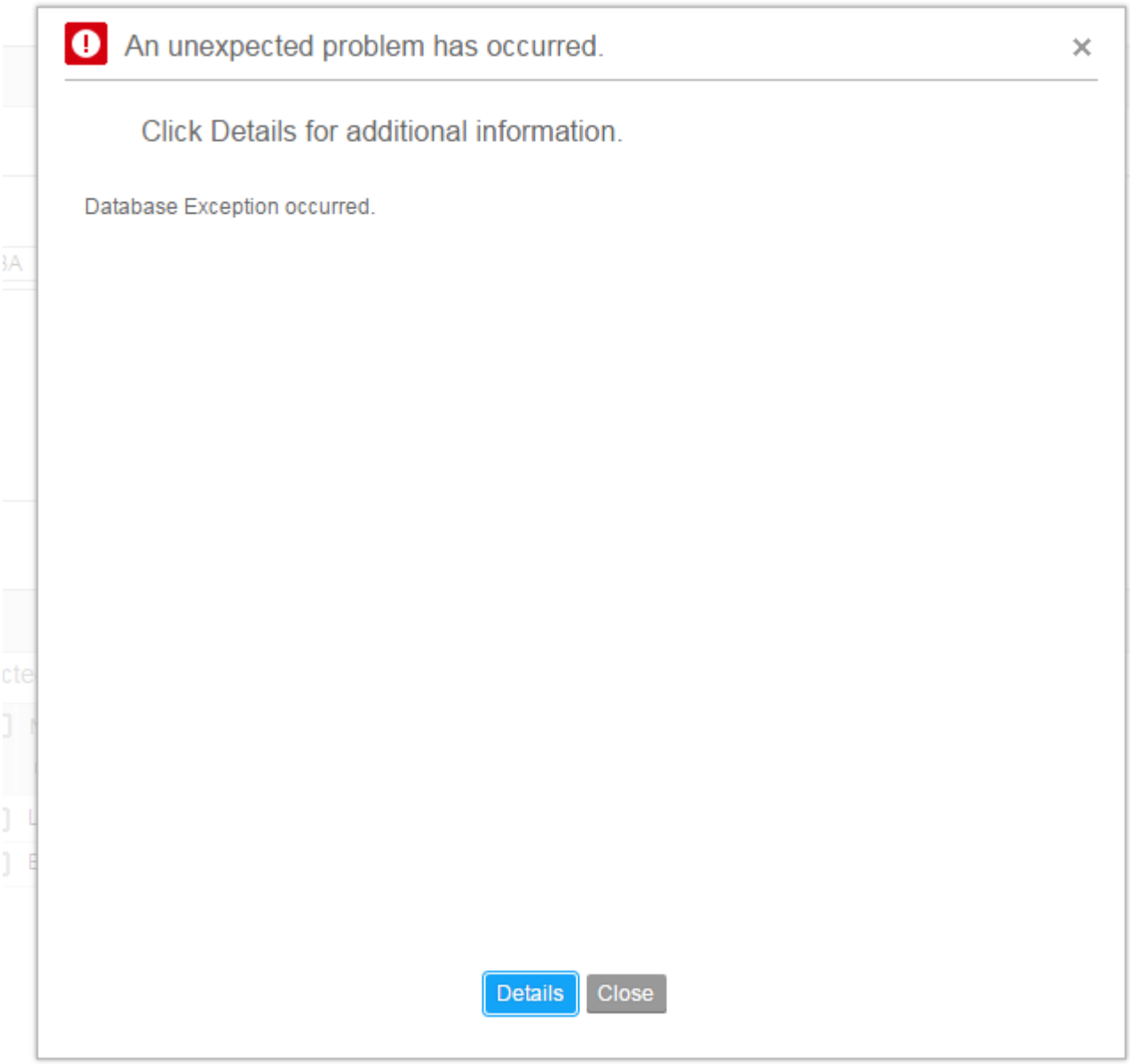
6

The DELETE statement conflicted with the REFERENCE constraint "BV_DD_PC_FK_EDM_CFG_PARM" error

When you import from LN Analytics Foundation 10.5.1 or previous version, the model import fails due to the following error:



Click **Details** button.



Click Details. The BusinessVaultUI.log file shows the error details.

Caused by: com.microsoft.sqlserver.jdbc.SQLServerException: The DELETE statement conflicted with the REFERENCE constraint "BV_DD_PC_FK_EDM_CFG_PARM". The conflict occurred in database "BVUI_INT", table "dbo.BV_DD_PC_X_EDM_CFG_PARM", column 'C_EDM_CFG_PARM'.

The reason for this error: for performance optimizations the time dimension have been redesigned. As part of this redesign, the underlying stored procedures including input parameters has been modified. To prevent this error, before you import the LN Analytics Foundation 10.5.2 BV Model.zip file execute these steps:

1 Select **Analytic Modeling > Dimensions**.

2 Go to BA_PCXX_TIME_DELIVERY
3 Change the current Configuration to BA_PCXX_COMPLETENESS_CONFIG
4 Click **Save**.

Repeat step 1 to 4 for these time dimensions:

- BA_PCXXX_TIME_ORDER
- BA_PRXX_TIME_END
- BA_PRXX_TIME_START
- BA_SARE_TIME