Installation Guide
Copyright © 2009 Infor

All rights reserved. The word and design marks set forth herein are trademarks and/or registered trademarks of Infor and/or its affiliates and subsidiaries. All rights reserved. All other trademarks listed herein are the property of their respective owners.

Important Notices

The material contained in this publication (including any supplementary information) constitutes and contains confidential and proprietary information of Infor.

By gaining access to the attached, you acknowledge and agree that the material (including any modification, translation or adaptation of the material) and all copyright, trade secrets and all other right, title and interest therein, are the sole property of Infor and that you shall not gain right, title or interest in the material (including any modification, translation or adaptation of the material) by virtue of your review thereof other than the non-exclusive right to use the material solely in connection with and the furtherance of your license and use of software made available to your company from Infor pursuant to a separate agreement ("Purpose").

In addition, by accessing the enclosed material, you acknowledge and agree that you are required to maintain such material in strict confidence and that your use of such material is limited to the Purpose described above.

Although Infor has taken due care to ensure that the material included in this publication is accurate and complete, Infor cannot warrant that the information contained in this publication is complete, does not contain typographical or other errors, or will meet your specific requirements. As such, Infor does not assume and hereby disclaims all liability, consequential or otherwise, for any loss or damage to any person or entity which is caused by or relates to errors or omissions in this publication (including any supplementary information), whether such errors or omissions result from negligence, accident or any other cause.

Publication Information

Release: Infor ERP SyteLine 8.01
Publication Date: November 2009
# Contents

Recommended Hardware ........................................... 9  
Recommended Setup .................................................. 9  
  Order of Events ..................................................... 10  
  Recommended Machines ........................................... 10  
Infor Tools ............................................................ 11  
Data Collection Client ............................................. 13  
Uninstalling Infor ERP SyteLine .................................. 14  
Upgrade Service Pack Minimums ................................. 14  

Setting Up the Database Server ................................. 15  
  Requirements ......................................................... 15  
  Install Components on the Database Server .................. 16  
  Configure the Database Server .................................. 18  
  Development Environment ....................................... 23  
  SQL Clustering ..................................................... 24  

Setting up the Utility Server ................................. 25  
  Requirements ......................................................... 25  
  Install Components on the Utility Server .................. 26  
  Configure the Utility Server .................................. 28  
  Update Service Configuration Manager Settings ............ 48  
    Set Up Monitoring of Events for Various Configurations 49  
    Set Up TaskMan Monitoring of Configurations ............ 50  
  Set Up Online Help ............................................... 51  
  Test the Client on the Utility Server ....................... 53  
  Final Data Collection Steps .................................... 54  
    Set up the DC Client Directory and Data Collection Parameters 54  
    Copy DcBackground.bat ......................................... 55  
    Set Up the Background Processor ............................. 55  
    Run Test Transactions .......................................... 56  
  Setup a Utility Server to send E-mail Notifications for Reports 56  
  Troubleshooting .................................................. 57  
  Set up Report Printing ........................................... 57  
  Install Crystal Reports ......................................... 57
Install Crystal Reports Service Pack and Hot Fixes .......................... 58
Define Your Printers ................................................................. 58

Setting Up a Client Workstation ............................................. 59
Requirements ................................................................. 59
Installation Options ......................................................... 59
Configure the Client ......................................................... 60
Install Click Once Client ..................................................... 60
Install End User Client ....................................................... 60
Configure End User Client ................................................... 63
Install Administrative Client ................................................ 65
Configure Administrative Client ........................................... 67
Start IDO Runtime Development Server ................................. 72
Apply Any Available Service Packs ........................................ 73
Run Infor ERP SyteLine .......................................................... 73

Setting Up the Planning Server ............................................ 75
Requirements ................................................................. 75
Install the Planning Server Components ................................. 75
Creating and Starting ERDB Databases ................................. 77
Sizing the ERDB Database ................................................... 79
Run the Infor ERP SL Configuration Wizard ............................ 81
Creating Additional Analyzer Start-Up Pages ......................... 90
Enter Infor ERP SyteLine Planning Parameters ....................... 92
Test the Analyzer Connection .............................................. 93
Troubleshooting the Analyzer .............................................. 93
Fine-tuning the Memory Allocation ................................. 95
  Fine-Tuning the Memory Allocation for Depth ....................... 97

Setting Up the Web Server .................................................. 99
Requirements ................................................................. 99
Data Collection Setup ........................................................ 99
Install the Web Server Components .................................... 100
Configure the Web Server Components ................................. 102
Set Up Online Help ............................................................. 117
Creating Additional Analyzer Start-Up Pages ......................... 118
Install and Configure Analyzer Clients ................................. 120
  Installing the Analyzer Client ............................................... 120
Log Out of Infor ERP SyteLine on All Clients ........................................ 155
Shut Down Servers ............................................................................. 155
Backup Databases ............................................................................. 155
Unload Data from the Database To Be Converted ............................... 156
Run uet-dump.p. (Only if User Extended Tables are Used) ................. 158
Create a Report of User-Defined Field Usage (Optional) ..................... 158
Create an Infor ERP SyteLine Empty Application Database for Each Site ........................................................................ 159
Select the Phases to Run on the Phases Tab ....................................... 159
Make Selections on the Source Tab ..................................................... 161
Make Selections on the Destination Tab .............................................. 162
Make Selections on the Options tab ................................................... 163
Click the Run Migration Button .......................................................... 166
Click Run Migration Button for Additional Phases or Table Ranges .... 166
Perform Post Conversion Tasks ............................................................ 166

Post-Conversion Tasks ........................................................................ 167
Outputs ................................................................................................ 167
Disk Usage ......................................................................................... 167
Troubleshooting ................................................................................. 168
Resolving Foreign-Key Conflicts .......................................................... 168
Relative Duration ............................................................................... 171
Re-entrance ......................................................................................... 171
Parallel Execution ............................................................................... 171

Converting From SyteLine 5 or SyteLine 6 (Multi-Site) ......................... 173
Conversion Steps (Multi-Site) ............................................................... 175
(Optional) Run the String Overstuffing Detection Program ................... 175
Start the Database Migration ............................................................... 176
(Optional) Run the Numeric Overstuffing Program ............................... 177
(Optional) Run the Foreign-Key Validation Program ............................. 177
(Optional) Run the Null Validation Program ........................................ 178
(Optional) Run the Check-Constraint Program ..................................... 178
(Optional) Run the Out-Of-Range Date-Validation Program ................. 178
Log out of SyteLine on all clients ......................................................... 179
Shut Down Servers ............................................................................ 179
Backup Databases ............................................................................... 179
Unload Data from the Database To Be Converted ................................ 179
Run uet-dump.p. (Only if User Extended Tables are Used) .................... 181
Create a Report of User-Defined Field Usage (Optional) ..................... 181
<table>
<thead>
<tr>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create an Infor ERP SyteLine Empty Application Database for Each Site</td>
</tr>
<tr>
<td>Load Data From Global Database</td>
</tr>
<tr>
<td>Make Selection on the Overview Tab</td>
</tr>
<tr>
<td>Select the Phases to Run on the Phases Tab</td>
</tr>
<tr>
<td>Make Selections on the Source Tab</td>
</tr>
<tr>
<td>Make Selections on the Destination Tab</td>
</tr>
<tr>
<td>Make Selections on the Options tab</td>
</tr>
<tr>
<td>Click the Run Migration Button</td>
</tr>
<tr>
<td>Repeat Previous 6 Steps if Necessary</td>
</tr>
<tr>
<td>Load Data From Entity Database(s)</td>
</tr>
<tr>
<td>Make Selection on the Overview Tab</td>
</tr>
<tr>
<td>Select the Phases to Run on the Phases Tab</td>
</tr>
<tr>
<td>Make Selections on the Source Tab</td>
</tr>
<tr>
<td>Make Selections on the Destination Tab</td>
</tr>
<tr>
<td>Make Selections on the Options tab</td>
</tr>
<tr>
<td>Click the Run Migration Button</td>
</tr>
<tr>
<td>Repeat Previous 5 Steps if Necessary</td>
</tr>
<tr>
<td>Perform Post Conversion Tasks</td>
</tr>
<tr>
<td>Repeat for additional Entity database(s)</td>
</tr>
<tr>
<td>Load the Data From Site Database(s)</td>
</tr>
<tr>
<td>Make Selection on the Overview Tab</td>
</tr>
<tr>
<td>Make Selections on the Phases Tab</td>
</tr>
<tr>
<td>Make Selections on the Source Tab</td>
</tr>
<tr>
<td>Make Selections on the Destination Tab</td>
</tr>
<tr>
<td>Make Selections on the Options tab</td>
</tr>
<tr>
<td>Click the Run Migration Button</td>
</tr>
<tr>
<td>Click Run Migration Button for Additional Phases or Table Ranges</td>
</tr>
<tr>
<td>Perform Post Conversion Tasks</td>
</tr>
<tr>
<td>Repeat Load the Data From Site Database(s) steps for Additional Site Databases</td>
</tr>
<tr>
<td>Post-Conversion Tasks</td>
</tr>
<tr>
<td>Outputs</td>
</tr>
<tr>
<td>Disk Usage</td>
</tr>
<tr>
<td>Troubleshooting</td>
</tr>
<tr>
<td>Resolving Foreign-Key Conflicts</td>
</tr>
<tr>
<td>Relative Duration</td>
</tr>
<tr>
<td>Re-entrance</td>
</tr>
<tr>
<td>Parallel Execution</td>
</tr>
</tbody>
</table>
## Contents

Setting Up a Developer Environment. ............................................... 209
  Requirements ........................................................................ 209
  Remove Dependency on the IDO Runtime Service ......................... 209
Create Databases for use in Your Developer Environment. .................. 210
  Install an Administrative Client ............................................... 210
  Use Configuration Manager. ...................................................... 210
  Visual SourceSafe .................................................................. 214
  FormControl. ......................................................................... 215
    Master Forms Database ....................................................... 215
    Archive Forms Database ...................................................... 216
Set Up Online Help .................................................................. 217
  Start IDO Runtime Development Server .................................... 218
  Run Infor ERP SyteLine ......................................................... 219
  License Your Developer Database ............................................. 219

Uninstalling Infor ERP SyteLine ................................................... 221

Installing Infor Framework Fax Service ......................................... 223

Infor .NET Web Service Test Utility .............................................. 227
  Starting the Utility ................................................................ 227
  Connecting (Logging In) to the Web Service ................................. 228
  Loading a Data Set ................................................................ 228
  Viewing Results .................................................................... 229

FormSync ................................................................................. 231
  Basic and Major Customizations .............................................. 231
  Default Synchronization and Alternatives to Default Synchronization .................................................. 232
    Remove Customizations ...................................................... 232
    Retain Customizations ....................................................... 232
  Test for FormCustomizations .................................................. 233
  Configure a File-Comparison Utility ......................................... 233
  Test an Upgraded Target Forms Database ................................ 233
**Introduction**

This chapter provides an introduction to the *Infor ERP SyteLine 8.01 Installation Guide*. It contains the following topics:

- Recommended Hardware
- Recommended Setup
- Online Help
- Infor Tools
- Data Collection Client
- Microsoft Outlook Service Packs
- Uninstalling Infor ERP SyteLine.

**Recommended Hardware**

You should have appropriately powerful clients and servers when running Infor ERP SyteLine software. For the most up-to-date list of software and hardware requirements for Infor products, see the *Guide to Technology*. This document also lists typical system administration tasks you should be familiar with before attempting to install and administer Infor products.

**Recommended Setup**

There are many pieces to install described in this guide. Depending on your company's needs, you may or may not install every piece described.

**NOTE:** After installing all the pieces of your system, you MUST apply the latest service pack to ensure everything works properly. See “Install and Apply Service Pack” on page 132 for information on how to download and apply the service packs.
The chapters are listed in the order in which the pieces should be installed. The order is determined mainly because one piece may rely on the fact that another piece is already installed. For example, during a client install, you are required to point to the utility server; therefore, you need to set up the utility server prior to installing clients.

**NOTE:** If you have purchased any other product that interfaces with Infor ERP SyteLine, see the installation guides for those products for direction BEFORE installing Infor ERP SyteLine.

### Order of Events

**NOTE:** Before you install Infor ERP SyteLine, check for any Installation Advisories at [http://www.infor365.com](http://www.infor365.com).

For an Infor ERP SyteLine installation, the order of events is as follows:

1. Database Server
2. Utility Server (the utility server includes a web server piece)

**NOTE:** In order to run reports, you must install Crystal Reports on the machine that Infor ERP TaskMan resides (typically the utility server). Crystal Reports must be installed after all Infor ERP SyteLine components are installed.

3. Client (Click Once, End User or Administrative)
4. Planning Server
5. Web Server (if applicable)
6. Install Latest Service Pack

**NOTE:** After installing all the pieces of your system, you MUST apply the latest service packs to ensure everything works properly. See “Install and Apply Service Pack” on page 132 for information on how to download and apply the service packs.

**NOTE:** The client chapter instructs you to install and apply service packs prior to logging into Infor ERP SyteLine.

### Recommended Machines

We recommend that you set up each of the following pieces on its own machine:

- Database Server
- Utility Server
- Web Server (if used with Data Collection)
- Planning Server

**NOTE:** You can put an end user or administrative client on a machine of its own or on any of the server machines listed above except for the database server.
Online Help

Infor ERP SyteLine online help gives you instant access to procedures and information about forms and fields. You can access Help from Infor ERP SyteLine forms, from other topics within Help, or from the search (index) function. Select Help>Contents and Index from the Infor ERP SyteLine title bar to open the Help, or use the F1 key to get help on any form or field.

Developer-Level Help

To access the help for developers, select Help>Customizing Forms.

Infor Tools

The development framework includes utilities for creating and editing forms, IDOs, and application events and event handlers. The framework also provides administrative and development utilities for managing a development project and deploying an application.

All these development utilities have their own Help files, accessible from within each utility. To help ensure that the system can locate the appropriate Help files for each utility, all these utilities can use the same root URL. Utilities retrieve this common root URL from a file named MG_Help.xml.

The MG_Help.xml file can contain only one value, and that becomes the default common URL for the WinStudio utilities. Initially, the value is null, so to enable the system to use it, you must define the common URL in this file manually.

MG_Help.xml is located in the main toolset folder on the client machine (where the WinStudio and utility executables are located).

When setting up the developer environment, or if this file is overwritten or becomes corrupted, you must manually write the correct URL value into it. To do this:

1. Open MG_Help.xml in any XML editor.
2. Modify the `<CommonRootHelpURL>` tag by placing within it that part of the URL (either local or network) where the system can find the MG Help files.

NOTE: The MG Help files are typically located in the C:/Inetpub/wwwroot/MG folder. In this case, you would enter this path between the `<CommonRootHelpURL>` tags.

If you are accessing the Help files across a network (recommended), you might have a URL like the following:

http://servername/Inetpub/wwwroot/MG

where `servername` is the name of the server on which the Help files reside.

In any case, you need enter only the beginning of the URL, up to the point where you find the `/Language/culture` folders for the MG Help. The system automatically appends the `/Language/culture` folders and the actual starting HTML file name to this root URL.

3. Save and close the MG_Help.xml file.

.NET Web Service Test Utility - This utility is found on the utility server. It provides a test client for the .NET Web Service (.NET API). If you install the web server components on your utility server and want to verify that it is installed and configured correctly without writing your own client, you can use this utility. See “Infor .NET Web Service Test Utility” on page 227 for more information about this utility.

App Metadata Sync - This utility provides a means of synchronizing and integrating metadata for IDOs and application events from different sources. This metadata comes primarily from system updates/upgrades and third-party add-on products. This utility is found on the utility server.

App Metadata Transport - This utility provides the capability to import application event and IDO metadata from an .xml file to a database. You can also use it to export application event and IDO metadata from a database to an .xml file. This utility is found on the utility server.

Configuration Manager - Use the Configuration Manager to create or edit configurations. You can specify the application database, forms database, and templates database to be used by a WinStudio run-time user or by a developer customizing forms. Configuration Manager is found on the utility server and administrative clients.

Copy User Tables - If you upgrade from one version of SyteLine 7 or 8 to another version of SyteLine (example - 7.05 to 8.00 or 8.00 to 8.01), you can copy your user and group authorizations to the new version with the Copy User Tables utility so you don’t have to set them up again. This utility is found on the utility server.

DC Background - The DC Background process extracts the transactions from either the imtrans1 or imtrans2 file, then stores them in error processing files, which are located in the Infor ERP SyteLine database.
DC File Server - The EZBuilder File Server, an Intermec utility, receives the transactions from the readers through a serial port connection or a TCP/IP network connection. It then places the reader transactions in the imtrans1 or imtrans2 file.

FormSync - Use FormSync to reconcile differences between two copies of the forms database. FormSync is found on the utility server and administrative client machines.

IDO Runtime Development Server - This tool allows access the IDO Runtime as a free-standing executable on a local machine rather than as a Windows service on a utility server; view diagnostic information. You need to use this when running a separate Administrative Client (separate from the utility server).

Log Monitor provides a single, consolidated view of all activity logged on a utility server. Its log shows information from all parts of the framework, including WinStudio, Infor TaskMan, IDOs, replication, and various services. It is intended to be used as a diagnostic tool by developers and administrators in troubleshooting. Note that information sent to the logs while the Log Monitor program is not running is not stored anywhere.

Replication Tool - Use the Replication Management Tool to view, correct, and resubmit inbound and outbound replication errors, and to view the status of sites linked to this site for replication. The Replication Tool is found on the utility server.

Service Configuration Manager - Use this program to configure framework services: the application event service, the replication service, and the TaskMan service. The Service Configuration Manager is found on the utility server.

FormControl - FormControl is a version-control tool for objects being developed for the presentation layer of an application in WinStudio. FormControl is used to access the forms and global objects stored in the databases associated with a particular implementation of WinStudio. FormControl tracks versions of objects and supports access to a repository of versions and an archive of deleted objects. Implementing FormControl is optional, and this tool is particularly useful when several developers are working on an application, as it allows one developer to lock a form or global object while working on it, so that other developers cannot work on the same object at the same time.

ObjectStudio - Use ObjectStudio to create and build IDOs for the middleware. ObjectStudio supports a multi-developer environment through integration with Visual SourceSafe. ObjectStudio is found on the developer client.

Table Utility - Use the Table Utility to create SQL Server tables with the required columns and triggers or to add these requirements to existing tables. Table Utility is found on the developer client.

Data Collection Client

If you are a data collection user, you may want to use a Data Collection (DC) Client when you set up your Infor ERP SyteLine system, depending on your specific system and hardware requirements. Your system configuration will depend on several factors, including the number of readers and the data collection environments (RF, serial, or
network) used. See your Infor ERP SyteLine consultant for advice for your specific configuration needs.

**NOTE:** We recommend you set up a DC Client machine if you are using TRAKKER Antares store and forward data collection. See the *Intermec Equipment Installation Guide* for more information.

If you are using a Data Collection Client, install the following components on it from the Custom Setup screen:

- Data Collection Web server components
- SyteLine Client components.

**NOTE:** After you install the Data Collection Client, run the Infor ERP SL Configuration Wizard (**Start>Programs>Infor>Setup>Infor ERP SL Configuration Wizard**) to configure the client.

### Uninstalling Infor ERP SyteLine

If you are upgrading your system from one version of SyteLine 7 to Infor ERP SyteLine 8.01 (for example from SyteLine 7.05 to Infor ERP SyteLine 8.01) you MUST first uninstall the old version before installing the new version. This is true for all pieces of your system; the database server, utility server, all clients, planning server, and web server components. See Chapter 12, “Uninstalling Infor ERP SyteLine” for uninstall instructions.

### Upgrade Service Pack Minimums

For the version you are upgrading TO, you must apply the latest service pack prior to running the upgrade process. For the version you are coming FROM, you must be at least at the following minimum service pack levels:

- **SyteLine 7.03** - latest service pack
- **SyteLine 7.04** - latest service pack
- **SyteLine 7.05** - latest service pack
- **SyteLine 8.00** - latest service pack

See “Upgrading Infor ERP SyteLine” on page 135 for specific instructions on how to upgrade your SyteLine version.
Setting Up the Database Server

The steps in this chapter detail how to set up the database server in a single site environment.

NOTE: If you want to set up a multi-site environment, complete the steps in this chapter first and then see the Multi-Site Implementation Guide.

Requirements

- If you are using SQL Server 2005 make sure the latest service pack is already installed and configured on the database server machine.
- If you are using SQL Server 2008 (Infor ERP SyteLine version 8.01.10 and up only), you MUST install SQL-DMO and SQLSERVER. These options are NOT part of the normal SQL installation procedure, and you will need to install them manually. Find and run the SQL Server 2005 Backward Compatibility file (SQLServer2005_BC.msi) located on your SQL Server 2008 installation media. This file is normally found in the x86\Setup\x86 directory.
- If the database server is on a Windows Server 2003 machine, you MUST enable Network COM+ and Network DTC Access.
- .NET Framework version 2.0 complete with the 3.5 service pack 1 update.
- Ensure that certain SQL Server settings are set on the database server. These settings are set during the install, but if you've copied a database or made some other configurations, you might need to make these changes. These settings can be set either before or after an Infor ERP SyteLine installation. Within SQL Server Management Studio for either SQL 2005 and SQL 2008, open the Properties dialog box for the server (NOT the database). On the Connections page, select the check box for the following items: ANSI warnings, ANSI padding, ANSI nulls, Arithmetic abort, Quoted identifier, xact abort, and concat null yields null; clear the check box for numeric round abort.
- If you are using a 64-bit system, you MUST do the following (refer to http://msdn.microsoft.com/en-us/library/ms175193(v=SQL.100).aspx):
  1. Before you run the Configuration Wizard to create databases, enable CLR.
  2. Restart the SQL Server after enabling CLR.
  3. Perform this query:
sp_configure 'show advanced options', 1;
GO
RECONFIGURE;
GO
sp_configure 'clr enabled', 1;
GO
RECONFIGURE;
GO

4. Use the SQL Server Configuration Manager utility to stop and restart SQL Server. Do NOT use the Windows Services utility to stop and restart.

Install Components on the Database Server

1. Insert the Infor ERP SyteLine CD into the CD-ROM drive of the database server machine.
2. After a few seconds, the initial install screen appears. If it doesn’t appear, access the CD-ROM drive and double click Setup.
3. Select **Database Server** as the configuration type. The **Install Database Migration** button appears and the **Select a Database Type** check box list appears.

4. From the **Select a Database Type** check box list, select or clear **Database Upgrade**. **Database** must be selected. If you select Database Upgrade, a utility is installed to upgrade your database from a previous version (version 7.00 or greater). It does not upgrade from version 6 or earlier. See Chapter 7, “Upgrading Infor ERP SyteLine” for more information about this utility.

5. Select one of the two button choices on this screen:

   | **NOTE:** If you click the **Install Database Migration** button, you must do so BEFORE you install Infor ERP SyteLine. Run the Infor ERP SyteLine Configuration Wizard after you have installed both pieces.

   - **Install Infor ERP SyteLine** - Click this button to install Infor ERP SyteLine and its databases on the database server.

   - **Install Database Migration** - Click this button to install all the necessary components to convert from an earlier version of SyteLine to Infor ERP SyteLine 8.01. Follow the instructions in the wizard to complete the install. If you are not migrating from an earlier version of SyteLine, do not click this button.

6. Click the **Install Infor ERP SyteLine** button. The **Welcome** screen appears.
7. Click Next. The Custom Setup screen appears.

8. Click Next. The Ready to Install the Program screen appears.

9. Click Install.

10. Once the installation process is complete, click Finish.

Configure the Database Server

Once the installation completes, run the Infor ERP SL Configuration Wizard to create the database environment.
1. Select **Start>All Programs>Infor>Setup>Infor ERP SL Configuration Wizard** to create the application, forms, objects, and templates databases. The **Welcome!** screen appears.

2. Select the **Create SyteLine Databases** field. You would select the **Link Databases for Multi-Site Use** only if you want to link existing databases. For more information about linking databases for multi-site use, see the *Multi-Site Implementation Guide*.

3. Click **Next**. The **Summary of Databases to Create** screen appears.
4. Click the **Add** button. The **Select Database Type** screen appears.

5. Select the database type you wish to install.

   **NOTE:** You MUST install at least one of the application databases, the Forms Database, and the Objects Database for Infor ERP SyteLine to work.
You can only choose one type at a time on this screen. The types are defined as follows:

<table>
<thead>
<tr>
<th>Database Type</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empty Application Database</td>
<td>Select this option ONLY if you are upgrading from a previous version of SyteLine (any version BEFORE SyteLine 7). If you need to choose this option, see the appropriate conversion chapter (multi-site or single site) in this manual.</td>
</tr>
<tr>
<td>Initialized Application Database</td>
<td>Select this option to create a new Infor ERP SyteLine database. This creates an empty database that includes some initialized data (two users, default replication categories, default user groups, etc.) which you then need to populate with data.</td>
</tr>
<tr>
<td>Demo Application Database</td>
<td>This database is for demonstration or testing purposes. This option populates the database with demo data so you can test many of Infor ERP SyteLine’s functions.</td>
</tr>
<tr>
<td>Forms Database</td>
<td>The forms database holds all of the information about each form in Infor ERP SyteLine. For example, components such as text boxes, labels, tabs, radio groups, buttons, and all of the associated properties (such as size, color, validation, events) are kept in the forms database. You can use one forms database with multiple application databases. This database is a requirement.</td>
</tr>
<tr>
<td>Templates Database</td>
<td>This database is a central holding place for changed Infor ERP SyteLine default screens. This database is optional.</td>
</tr>
<tr>
<td>Objects Database</td>
<td>The objects database stores the IDO metadata. This database is a requirement.</td>
</tr>
</tbody>
</table>

For the purposes of this manual, we selected **Demo Application Database** here.

6. Click **Next**. The **Database Name and Location** screen appears.
7. Enter data into or update the following fields:

- **SQL Server Name** - This option is not updateable since databases can only be created on the local server. If you are using SQL clustering, see “SQL Clustering” on page 24.
- **SQL Username** - Enter the SQL user name, which must be "sa".
- **SQL Password** - Enter the SQL password. You can NOT use a semicolon in your password.
- **New SQL Database Name** - Enter a name for the application database to be created.
- **SQL Data File Path** - Accept the default path or browse to select the location for the application database data file. This field is grayed out for non-application databases.
- **SQL Log File Path** - Accept the default path or browse to select the location for the application database log file. This field is grayed out for non-application databases.
- **SQL Collation** - Select the default SQL Collation. The default value depends on your Windows Version (English, Chinese, Japanese, etc.). Once you set it for a database, it can not be changed. Refer to your SQL documentation for additional information.

8. Click **Next**. The **Set Database Site Parameters** screen appears.

- **Site ID** - Enter the Site ID. The ID is a shorter version of the Site Name (8 characters maximum).
- **Site Name** - Enter the site name for the Application database environment being created.
- **Site Description** - Enter a description for the database environment being created.
- **Site Group** - Enter a group name for the environment being created. The group name should be descriptive of the sites in the group. For example, you might have a group name of "NoAm" for North America if all the sites in that group are in North America.

- **Site Currency** - Accept the default value of USD or assign the appropriate currency code for the environment being created.

- **Site Type** - In most cases, accept the default value of Site. Choose Entity if you are setting up an Entity database in a multi-site environment. See the *Multi-Site Implementation Guide* if you want to set up a multi-site environment.

- **Time Zone** - Select the time zone for the site to which you are installing.

9. Click **Next**. The **Summary of Databases to Create** screen appears, this time with the database information filled in.

10. Click the **Add** button to add more databases if you need to, or click **Next**.

   **NOTE:** You MUST have a Forms database, an Objects database, and at least one application database for Infor ERP SyteLine to work. If you haven't added the appropriate databases yet, click the **Add** button on this screen and add them.

11. Once you click **Next**, the **Review Configuration Changes** screen appears. Read the information on the screen to ensure it is correct.

12. Click **Commit**.

**Development Environment**

If you wish to do major customizations to existing forms or if you need to modify backend objects such as stored procedures, you need to create additional databases on the
database server. See Chapter 11, “Setting Up a Developer Environment” for information on which databases to create. Use this chapter to help you create them.

**SQL Clustering**

You can set up your environment to take advantage of SQL Clustering. Infor does not offer documentation or support to help you walk through this process, as much of it is dependent on your own environment and because the bulk of the setup is done with SQL, not Infor ERP SyteLine.

The only Infor ERP SyteLine requirement is that since the system is not "cluster aware", you must install it on all nodes in the cluster. When you run the Infor ERP SL Configuration Wizard on the database server, enter the SQL instance of the local node in the **SQL Server Name** field on the screen below.

![Infor ERP SL Configuration Wizard](image.png)
Setting up the Utility Server

Requirements

- SQL Client Tools are already installed and configured on the utility server. You can install SQL Server, but it is not necessary.
- .NET Framework version 2.0 complete with the 3.5 service pack 1 update.
- Microsoft Message Queuing (MSMQ) is installed.
- If the utility server is on a Windows Server 2003 machine, you must configure the machine as an Application Server role.
- If the utility server is on a Windows 2008 Server machine, you must enable Windows Authentication and Basic Authentication in the Internet Information Services (IIS) Manager.
- If the utility server is on a Windows 2008 Server machine, you must do the following:
  - install the Application Server role and ALL role services for this role.
  - install the Web Server (IIS) role and all role services for this role EXCEPT for the FTP Publishing Service. You CAN install the FTP Publishing Service if you like; it’s just not required.
- In order to run reports, you must install Crystal Reports on the machine that TaskMan resides (typically the Utility server). Crystal Reports must be installed after all Infor ERP SyteLine components are installed.
- If you plan to use the application event system, you will likely want to access the PDF file *Guide to the Application Event System*. To access this PDF guide, you must have Acrobat Reader or another PDF viewer installed on the same utility server where the online Help files are installed. Acrobat Reader is a free download from Adobe, available at [www.adobe.com](http://www.adobe.com).
- If you plan to run an Administrative Client on your utility server, you must enable the Windows XP style for windows and buttons. Failure to do so results in poor graphics within Infor ERP SyteLine. On the Windows desktop, right-click and choose Properties. Within the Display Properties window, select the Appearance tab. Under Windows and buttons, select Windows XP Style. If the option for Windows XP Style does not appear, you need to start the service on the utility server called Themes and then try again.

NOTE: If you’ve applied service pack 8.01.10, this is no longer a requirement. However, we still recommend the Windows XP Style.
If you plan to use a Click Once Client, you must set up a Virtual Directory in IIS to preview reports on the client.
1. Open IIS Manager.
2. Right click Default Web Site.
3. Select **New>Virtual Directory**. This opens the Virtual Directory Creation Wizard.
4. Give the folder a name (an alias), and designate the directory path C:\Program Files\Infor\SyteLine.
5. Set the Virtual Directory Access Permissions to Read, Write, and Browse.
6. In SyteLine, navigate to the Reports/Taskman tab on the **Intranets** form.
7. In the Report URL field, enter **http://<servername>/<virtualdirectoryname>** where "<servername>" is the name of the Utility Server and "<virtualdirectoryname>" is the name you gave the folder earlier.
8. After saving all changes, restart IIS and the Infor Framework TaskMan service.

### Install Components on the Utility Server

1. Insert the Infor ERP SyteLine CD into the CD-ROM drive of the utility server machine.
2. After a few seconds, the initial install screen appears. You may be asked to wait for Crystal Reports to be configured. If the install screen doesn’t appear, access the CD-ROM drive and double click **Setup**.
3. Select **Utility Server**.
4. The **Install .NET Framework** button appears. If you are installing to a Windows Server 2003 machine, .NET Framework is already installed, so you don’t need to click this button (the text on the button is italicized if it is already installed on your computer). If you need to install .NET Framework, you can click this button to install. Follow the install wizard prompts and then return here.

5. Click the **Install Infor ERP SL** button. The **Welcome** screen appears.

6. Click **Next**. The **Custom Setup** screen appears.

![Custom Setup Screen](image)

7. Expand **Utility Server**. The default selections are shown in the screen shot above. For the purposes of this chapter, we are installing all of the above selected options. Each option is described below. If you choose to deselect any of the options, the steps in this chapter will be different from what you see.

- **Infor TaskManager Service** is a necessary component for Infor ERP SyteLine.
- **Planning and Scheduling Service** is necessary for Infor APS and Infor APS scheduling.
- **Web Server** is a necessary piece for Infor ERP SyteLine. In a typical installation, the Web Server piece is placed on the Utility Server.
- **Data Collection Middleware** is necessary for data collection.
- **ClickOnce Client** is necessary if you want client machines to be thin. For more information about ClickOnce Client and other client setup options, see “Setting Up a Client Workstation” on page 59.

8. Click **Next**. The **Ready to Install the Program** screen appears.

9. Click **Install**.

10. Once the installation process is complete, click **Finish**.

11. If the **After Installation** screen exists, click **Next** and then **Finish**.
Configure the Utility Server

Once the installation completes, run the **Infor ERP SL Configuration Wizard** to configure the utility server. If you choose not to configure a piece as you go through the wizard, leave the screen blank and click **Next**.

12. Select **Start>All Programs>Infor>Setup>Infor ERP SL Configuration Wizard**.
13. The **Welcome!** screen appears.

14. The instructions in this chapter assume that you have selected all items. If you choose not to install one or more of the above selected components, your install procedure will be a bit different from what is documented here.

<table>
<thead>
<tr>
<th>Component</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Click Once Deployment</td>
<td>Add this component if you want this utility server to act as a Click Once Deployment Server. This allows users to attach to this utility server via a web browser to install a client on their computers. This procedure is described in Chapter 3, “Setting Up a Client Workstation.”</td>
</tr>
<tr>
<td>IDO Request Web Service</td>
<td>This service is required for clients that connect to the IDO Runtime Service using HTTP.</td>
</tr>
<tr>
<td>Inbound Queue Web Service</td>
<td>This component is necessary for asynchronous replication. It accepts replication requests from sites on other intranets.</td>
</tr>
<tr>
<td>Infor Inbox Web Service</td>
<td>This Web service allows users to access their system Inbox using a Web interface without having to log on to the system. Users can do anything in the Web version of the Inbox that they can do in the system version. The Infor Inbox Web Service is accessed using the following URL: <a href="http://UtilityServerName/InforInbox/Inbox.aspx">http://UtilityServerName/InforInbox/Inbox.aspx</a></td>
</tr>
</tbody>
</table>
15. Click **Next**. The **SyteLine Click Once Configuration** screen appears.

<table>
<thead>
<tr>
<th>Component</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infor Task Manager Service</td>
<td>The Task Manager (which is different from the Windows Task Manager) is a Windows service that: polls the application database; executes SQL stored procedures; launches applications such as EDI, MRP, and Infor APS; generates Crystal Reports.</td>
</tr>
<tr>
<td>Replication Service</td>
<td>This service is used for multi-site environments.</td>
</tr>
<tr>
<td>Replication Listener Service</td>
<td>This service is used for multi-site environments.</td>
</tr>
<tr>
<td>Data Collection Web</td>
<td>This component allows for interfacing with remote Data Collection devices.</td>
</tr>
<tr>
<td>Planning and Scheduling COM+</td>
<td>This component loads Planning and Scheduling middleware into COM+ to facilitate network access to Planning and Scheduling analysis.</td>
</tr>
<tr>
<td>Component</td>
<td></td>
</tr>
<tr>
<td>Planning and Scheduling Gateway</td>
<td>The Planning and Scheduling Gateway Service periodically runs the Gateway Processor, which reads the ERDBGW table in the SQL database and copies the data to the corresponding tables in the ERDB database, keeping the two databases synchronized. The APS planning functions use the data in the ERDB database.</td>
</tr>
<tr>
<td>Planning and Scheduling Server</td>
<td>The Planning and Scheduling Server Service controls the APS Server program, which runs the APS planning function and the Scheduler.</td>
</tr>
<tr>
<td>Planning and Scheduling Web</td>
<td>Creates a web site to allow Planning and Scheduling analysis via the network.</td>
</tr>
<tr>
<td>End-User Client/Administrative</td>
<td>This component puts a client on the Utility Server.</td>
</tr>
</tbody>
</table>

16. Enter the following information:
- **Virtual Directory Name** - Accept the default of `SLClientDeploy`.
30 | Setting up the Utility Server

- **Service Logon** - Enter the service logon using the DOMAIN\Username format. The name must be a member of the network domain.
- **Password** - Enter the password for the service logon.

17. Click *Next*. The **Click Once Application Name** screen appears.

18. Enter the following information:

- **Click Once Application Name** - The name you enter here will be the name of the shortcut created by the install. It is also the name that appears in Add/Remove Programs if you wish to uninstall or modify the program.

- **Click Once Webserver Address** - This field is for the name of your web server (usually the name of your utility server). Whatever name is entered here is automatically updated in the Client Deploy URL field below.

- **Client Deploy URL** - You can not edit this field. The web server portion of the URL is changed immediately if you change the name of the web server in the Click Once Webserver Address field above.
19. Click Next. The SyteLine IDO Request Web Service screen appears.

20. Enter the following information:
   - **Virtual Directory Name** - Accept the default of IDORequestService.
   - **Service Logon** - Enter the service logon using the DOMAIN\Username format. The name must be a member of the network domain.
   - **Password** - Enter the password for the service logon.


22. Enter the following information:
23. Click **Next**. The **Infor Inbox Web Service** screen appears.

24. Enter the following information:
   - **Virtual Directory Name** - Accept the default of **InforInbox**.
   - **Service Logon** - Enter the service logon using the **DOMAIN\Username** format. The name must be a member of the network domain.
   - **Password** - Enter the password for the service logon.
25. Click **Next**. The **Infor Task Manager Service Username and Password** screen appears.

26. Enter the following information:
   - **Service Logon** - Enter the service logon using the DOMAIN\Username format. The name must be a member of the network domain.
   - **Password** - Enter the password for the service logon.

27. Click **Next**. The **Replication Service Username and Password** screen appears.

28. Enter the following information:
- **Service Logon** - Enter the service logon using the DOMAIN\Username format. The name must be a member of the network domain.
- **Password** - Enter the password for the service logon.

29. Click **Next**. The **Replication Listener Service Username and Password** screen appears.

30. Enter the following information:
- **Service Logon** - Enter the service logon using the DOMAIN\Username format. The name must be a member of the network domain.
- **Password** - Enter the password for the service logon.
31. Click Next. The **Data Collection Web Configuration** screen appears.

32. Enter the following information:
   - **Virtual Directory Name** - Accept the default of `fsdatacollection`.
   - **Service Logon** - Enter your logon using the `DOMAIN\Username` format.
   - **Password** - Enter the password for your service logon.

33. Click Next. The **Planning and Scheduling Web COM+ Components** screen appears.

34. Enter the following information:
36. Click **Add**. The **Planning and Scheduling Gateway Connection Information** screen appears.

37. Enter the following information:
   - **SQL Server Name** - Choose the SQL server name from the drop down list. This is the machine where your databases reside.
- **SQL Username** - Enter the SQL username.
- **SQL Password** - Enter the SQL password. You can NOT use a semicolon in your password.
- **Application Database** - Choose the application database from the drop down list. These are databases on the SQL server.
- **Polling Interval** - The time delay (in seconds) before the service runs the process that synchronizes the planning database and Infor ERP SyteLine application database. The default interval is 300 seconds.

38. Click **Next**. The **Planning and Scheduling Gateway Service User** screen appears.

39. Enter the following information:
   - **Service Logon** - Enter the service logon using the DOMAIN\Username format. The name must be a member of the network domain.
   - **Password** - Enter the password for the service logon.
40. Click **Next**. The **Planning and Scheduling Gateway Services** screen appears with information filled in.

41. Click **Next**. The **Planning and Scheduling Server Services** screen appears.
42. Click **Add**. The **Planning and Scheduling Server Connection Information** screen appears.

![Planning and Scheduling Server Connection Information](image)

43. Enter the following information:
   - **SQL Server Name** - Choose the SQL server name from the drop down list.
   - **SQL Username** - Enter the SQL username.
   - **SQL Password** - Enter the SQL password. You can NOT use a semicolon in your password.
   - **Application Database** - Choose the application database from the drop down list. These are databases on the SQL server.
   - **Port Number** - The port number to use for the service (must be a number from 5000-65000). This must be a different port number than the port on which the planning database is running (you set up the planning database in Chapter 4, “Setting Up the Planning Server”).
   - **Temp Directory** - The path to a folder where the server service can write temporary files (such as c:\temp). This directory must allow full control by the local administrator user account.
44. Click Next. The Planning and Scheduling Server Service User screen appears.

45. Enter the following information:
   - **Service Logon** - Enter the service logon using the DOMAIN\Username format. The name must be a member of the network domain.
   - **Password** - Enter the password for the service logon.

46. Click Next. The Planning and Scheduling Server Services screen appears with information filled in.
47. Click **Next**. The **Planning and Scheduling Analyzer Web Sites** screen appears.

48. Click **Add**. The **Planning and Scheduling Web Connection** screen appears.

49. Enter or select the following information:

- **SQL Server Name** - Enter the name of the SQL server that contains the desired application database.
- **SQL Username** - Enter the SQL Username.
- **SQL Password** - Enter the SQL Password. You can NOT use a semicolon in your password.
- **Application Database** - Select the application database from the list. The field is grayed out until you enter a SQL Username and SQL password in the fields above it.

- **Startup Page Name** - Enter the name used as the analyzer startup page (ex. Analyzer_Syteline). Do NOT add .htm or .html to the end of the name.

50. Click **Next**. The **Planning and Scheduling Analyzer Web Sites** screen appears with information filled in.

51. Click **Next**. The **SyteLine Utility Server URL** screen appears.
52. In the Utility Server URL field, replace "<WebServer>" with the name of your utility server. In most cases your web server will be the same as your utility server. If you are using a different web server than your utility server, then put that name in this field in place of "<WebServer>".

53. Click Next. The Review Configuration Changes screen appears.

54. Verify that the information is correct, and click Commit.

55. When the configuration process is complete, click Next.

56. The Additional Configuration screen appears.

57. This screen contains two buttons. Each button opens a separate utility. To learn more about each utility, read each utility’s online help.

- **Config Manager** - This button opens the Configuration Manager utility. To complete your utility server set up, you MUST use the Configuration Manager. You use this to create different configurations that point to the databases you want to access.

- **Service Config Manager** - This button opens the Service Configuration Manager utility. Use this utility to configure the services included in the toolset.
58. Click the **Config Manager** button on the **Additional Configuration** screen. The **Configuration Manager** utility opens. This utility is also found here - **Start>All Programs>Infor>Tools>Configuration Manager**.

59. Click **New**. The **New Configuration** dialog box appears. You must set up a configuration name on the utility server that exactly matches each site name, including case. For example, if the site name is ONT, you must have a configuration named ONT. The runtime application database specified for the ONT configuration must contain the ONT site's data, for example ONT_app. You can set up additional configurations for each site with different names, for example SL8_ONT_Test. Give your configuration a name and click **OK**.
60. The **Edit Configuration** screen appears with the Runtime (Client) tab selected.

61. Yellow (or light shading if printing in black and white) has been added to the required fields on this tab just for the purposes of this manual. Notice there are two main sections on this screen, Runtime Application Database and Runtime Forms Database.

- **Runtime Application Database** - In this section, provide the following information:
  - **User** - Enter the username. You provided this username when you created your application database in the previous chapter.
  - **Password** - Enter the password for the username. You provided this password when you created your application database in the previous chapter.
  - **Server** - Enter the name of your database server.
  
  **NOTE:** You can test your entries and your connection to the database server by clicking the Test User button. You will receive a success message if all is well.

- **Database Name** - Select the name of the application database you created in the previous chapter.

- **Runtime Forms Database** - In this section, provide the following information:
  - **User** - Enter the username. You provided this username when you created your forms database in the previous chapter.
  - **Password** - Enter the password for the username. You provided this password when you created your forms database in the previous chapter.
  - **Server** - Enter the name of your database server.
  
  **NOTE:** You can test your entries and your connection to the database server by clicking the Test User button. You will receive a success message if all is well.
- **Database Name** - Select the name of the forms database you created in the previous chapter.
- **Form Templates Database Name** - If you created a templates database, select it here.

**Application** - Select the default application of **SL801**. You can create "applications" with different parameters using the Applications tab on the Configuration Manager.

62. Click the **Objects Metadata** tab.
63. Click the **Set Objects DB Specification** button. The **Set Objects Metadata Server/Database** screen appears:

![Set Objects Metadata Server/Database](image)

64. Provide the following information:

   - **User** - Enter the username. This is the user name you supplied for the objects database in the previous chapter.
   - **Password** - Enter the password. This is the password you supplied for the objects database in the previous chapter.
   - **Server** - Enter the name of your database server.
   - **Database Name** - Select the name of the objects database you created in the previous chapter.

65. Click **OK** to close the **Set Objects Metadata Server/Database** screen. A success message appears. Click **OK**.

66. Click **OK** to close the **Edit Configuration** screen.

67. You are now back to the **Configuration Manager** screen. Click the **Web Servers** tab.

68. Click the **New** button. The **New Web Server** dialog box appears.

69. Enter any name into the lone field in this dialog box and click **OK**.
70. The **New Web Server** dialog box appears.

![New Web Server dialog box](image)

71. In the **Root URL** field, enter the name of your web server. In most cases this is the same machine as your utility server. Use the following syntax - `http://webservename`.

72. Click **OK**. You can close or minimize the Configuration Manager.

**Update Service Configuration Manager Settings**

When you add configurations as you just did with the Configuration Manager, you need to update the Service Configuration Manager utility so that the new configurations will be monitored by services such as TaskMan, Replication, and the Event System.
1. To access this utility, either click the **Service Config Manager** button on the Additional Configuration screen or select **All Programs>Infor>Tools>Service Configuration Manager** from the Start menu on the utility server.

The **General** tab shows what services are installed on this utility server and where to find configuration files. You can also specify a default configuration here, but currently it only applies to the Replication services.

**Set Up Monitoring of Events for Various Configurations**

Use the **Event Service** tab on the Service Config Monitor to specify each of the configurations you want the Event System to monitor.
1. On the Event Service tab, click Add to display a dialog box where you can select a configuration and optionally specify sleep time (defaults to 10 seconds) and the maximum number of concurrent events that can run in this configuration (defaults to 5).

   NOTE: You must set up a configuration name on the utility server that exactly matches each site name, including case. For example, if the site name is ONT, you must have a configuration named ONT.

   For more information, see the Service Configuration Manager online help.

2. Repeat Step 1 for all configurations you want the Event System to monitor. Usually you will select all configurations for monitoring.

3. Click the Save button at the bottom of the window to save your changes. The system will not recognize the changes until you stop and restart the services later in this chapter.

Set Up TaskMan Monitoring of Configurations

Set up TaskMan to monitor each application database on which users will be executing reports, stored procedures, IDO methods, executables, or other background tasks. Include entity application databases, since financial reports can be run on them.

1. Go to the TaskMan tab of the Service Configuration Monitor.
2. Click **Add** to display a dialog box where you can select a configuration and optionally a DSN. (DSNs are only needed for some custom reports created in previous versions. See the Service Configuration Manager online help for more information.)

![TaskMan dialog box]

3. Click **OK**. The configuration is added to the list in the TaskMan tab.
4. Repeat Steps 2 and 3 until you have added all the configurations you want TaskMan to monitor.
5. Click the **Save** button at the bottom of the window to save your changes. The system will not recognize the changes until you stop and restart the services later in this chapter.

| NOTE: Use the Service Configuration Manager additionally as part of a multi-site environment setup. See the *Multi-Site Implementation Guide* for more information. |

---

**Set Up Online Help**

You must provide the name of the machine where you access the online help in order for the help to work.
6. Within **Configuration Manager (Start>All Programs>Infor>Tools>Configuration Manager)**, click the **Applications** tab.

   ![Configuration Manager](image)

   7. Select the **SL801** Application ID and click the **Edit** button.

   8. The **Edit Application** window appears.
9. Click the **Options** tab.

![Options tab](image)

10. In the **Help Server URL** field, enter the following:  
    `http://helpservername/SyteLine/

    The help server name is the name of the machine where the help resides. The help is on the utility server, so in most cases, the client on the utility server should access the help that is on the utility server.

11. Click **OK** to close the **Edit Application** window.

Test the Client on the Utility Server

**NOTE:** Reboot the utility server before you test the client. This ensures that all necessary Windows services are started.

A client is installed on all utility servers. You should test to see that it works.
1. Select **Start>All Programs>Infor>Infor ERP SL**. The **Sign In** screen appears.

2. Enter the following information:
   - **Use Workstation Login** - Select this check box to sign in to the system using your current Windows domain/userID.
   - **User Name** - Enter "sa". The "sa" username is used to enter Infor ERP SyteLine initially. This user only allows one session.
   - **Password** - Leave this field blank.
   - **Configuration** - Choose the configuration you created earlier in this chapter.
3. Click **OK**.

---

### Final Data Collection Steps

**NOTE**: The following steps are for Data Collection users only.

### Set up the DC Client Directory and Data Collection Parameters

After you have installed data collection components and run the Infor ERP SL Configuration Wizard, you must set up the DC Client Directory, parameters, and background processor on the Data Collection Parameters form.

**NOTE**: We recommend you access the Data Collection Parameters form from the DC Client workstation or on the machine where you will be running the background processor.

Each Infor ERP SyteLine database in a multi-site environment must have a unique DC client directory. To set up the DC Client Directory and Data Collection Parameters:

1. Select the **Background tab** on the Data Collection Parameters form.
2. Enter a path to use as the DC client directory in the **DC Client Directory** field. When you save the record, if the path doesn’t exist, the system creates it. If the path already exists, you will be cautioned that the path already exists, and not to use this path for other DC Background process.

3. Set the other parameters on the Data Collection Parameters form, such as polling frequency and auto-post parameters, if required for your implementation.

### Copy DcBackground.bat

During the installation of the Utility Server components, the Data Collection files are installed at `c:\Program Files\Infor\SyteLine\DataCollection\Intermec\DcSfc`. After defining the DC Client Directory, copy DcBackground.bat from the installation path above to the DC Client Directory path.

### Set Up the Background Processor

To set up the data collection background processor:

1. Select the **Background tab** on the Data Collection Parameters form.
2. Set the **Run Data Collection Background Process** field to either Background Task mode or Standalone mode. Consider the amount of data to be processed and your system requirements when deciding which mode to use. See the online help for the **Run Data Collection Background Process** field for more information.
3. If you selected to run the background processor in Background Task mode, you must:
   - Edit the `dcbackground.bat` file in the DC Client Directory and change the line:
     ```
     "C:\Program Files\Infor\SyteLine\DataCollection\InterMec\DcSfc\dcBackground.exe" user=SL_Internal password= config=SYMDCBKG=ENABLED
     ```
     where:
     - **user=SL_Internal** is required.
     - **password** is the password defined for SL_Internal (default is blank; you can define this password on the Users form in Infor ERP SyteLine).
     - **config** is the site name.
     - **SYMDCBKG=ENABLED** is used to record the start and end of each poll in the `collect.err` file. Since this will require more disk space, you may want to use this value primarily for troubleshooting. Remove this value if not needed.

   For example: `user=SL_Internal password= config=ohio SYMDCBKG=ENABLED`. 
Open the **Background Task Definitions** form in Infor ERP SyteLine. Select the Dcbackground task, and in the **Executable Name** field, enter

\<dcclientdirectorypath\>\dcbackground.bat, where \<dcclientdirectorypath\> is the path you defined in the DC Client Directory pathfield.

4. If you selected to run the background processor in Standalone mode, set the parameters for the background process shortcut. Right click **Start>Explore All Users**. Select **Start Menu>Programs>Infor>Tools**. Select **DC Background** and right click **Properties**. In the **Target** field, after "C:\Program Files\Infor\SyteLine\DataCollection\InterMec\DcSfc\Dcbackground.exe", add 

user=SL_Internal password= config=SiteName SYMDCBKG=ENABLED. Enter the password defined for SL_Internal (default is blank; you can define this password on the Users form in Infor ERP SyteLine). SiteName is the name of the Infor ERP SyteLine site. Enter SYMDCBKG=ENABLED to record the start and end of each poll in the collect.err file. Since this will require more disk space, you may want to use it primarily for troubleshooting. Remove this value if not needed.

5. Start the background processor. See the online help for the Run Data Collection Background Process field for more information on how to do this for the mode selected.

**Run Test Transactions**

After you have completed installing Infor ERP SyteLine, you may want to run test data collection transactions. We recommend you clear all auto-post parameters on the **Data Collection Parameters** form and do not use your primary database for testing. You can also use the purge utilities to delete the transactions in error processing instead of posting them.

**Setup a Utility Server to send E-mail Notifications for Reports**

1. Perform the following tasks to notify TaskMan to send E-mail attachments:
   a. Start Infor ERP SyteLine.
   b. Open the **Sites/Entities** form.
   c. Click on the row in the grid representing your site.
   d. Right-click on the Intranet Name field and choose **Details**.
   e. Click on the Reports/TaskMan tab.
   f. Make sure the **Send E-mail Notification** checkbox is checked.

2. Setup each report where notifications are required:
   a. Start Infor ERP SyteLine.
   b. Open the **Background Task Definitions** form.
   c. Filter on the required task names.
   d. For each task:
      i. Click on **Report Options**.
      ii. Click on the row for the user and task name.
      iii. Choose any output format.
      iv. Set E-mail notification to **Yes**.
If you want the report attached to the E-mail, set Attach Report to **Yes**.

3. Make sure the user printing the report contains a valid E-mail address:
   a. Start Infor ERP SyteLine.
   b. Open the **Users** form.
   c. Filter on the user name in question.
   d. Make sure the **E-mail Address** field is filled in and correct.

4. Print the report.

**Troubleshooting**

- Open the **Background Task History** form in Infor ERP SyteLine, filter on the Task Name field and investigate possible errors that TaskMan encountered.
- Open the **Application Event Log** for the operating system (“Event Viewer” in the control panel). Look for errors that TaskMan might have logged.
- If there are still no errors reported, start TaskMan with the “debug nowait” Start parameters. Consult the Application Event Log for debug messages that TaskMan logs.

**Set up Report Printing**

1. On the **Intranets** form’s Reports\TaskMan tab, specify the following:
   - Intranet name in the Intranet field
   - **TaskMan Path** = `\utilityservername\SyteLine`
   - **Output**
   - **Preview**

2. On the **Sites\Entities** form, specify the following:
   - Select Site in the Site field
   - Select the Site Name to match the Intranet name you chose in Step 1 above
   - Verify that Database Name field contains correct application database name
   - Verify that Forms Database Name field contains correct forms database.

3. Shut down the Infor Framework IDO Runtime Service, which also shuts down dependent services (for 8.00.10 and above). If you are not yet running 8.00.10 or above, you need to shut down the Infor Framework TaskMan service and the Infor Framework Event service BEFORE shutting down the Infor Framework IDO Runtime service.

4. Restart the services, starting with Infor Framework IDO Runtime Service.

**Install Crystal Reports**

Crystal Reports must be installed on the machine with TaskMan (this is typically the utility server). Install Crystal Reports based on the installation instructions on the Crystal Reports CD. However, in order for Crystal Reports to function properly with Infor ERP SyteLine, you must install every feature, then install any service packs and hot fixes.
Install Crystal Reports Service Pack and Hot Fixes

After installing Crystal Reports, install the service pack and hot fixes included on the Crystal Reports CD.

Define Your Printers

**NOTE:** When you define the printers, you must be logged in as the same user under which Task Manager is running.

Before you can print reports, you must define, on the utility server, each printer that will be used to print Infor ERP SyteLine reports. See your operating system documentation for more information about defining printers.

Once the printers are defined on the utility server, use the **Printers** and **Report Options** forms to further configure and define them for your users. For more information, see the online help.
Setting Up a Client Workstation

Requirements

- A client workstation must have a Windows 2003, Windows XP, or Windows Vista operating system.
- SQL Client Tools must be installed on client machines (except a Click Once Client) prior to setting up a client.
- If you set up a Click Once Client or Administrative Client, you must install .NET Framework version 2.0 complete with the 3.5 service pack 1 update.
- An Administrative Client must have Internet Information Services (IIS) and Active Server Pages installed and allowed. You must reboot your machine after installing these pieces for Infor ERP SyteLine to work properly.
- To view report output, at least one of the following software applications must be installed on the client machine:
  - Crystal Reports XI
  - Microsoft Word
  - Microsoft Excel
  - Adobe Acrobat
- If you plan to run a client on a Windows 2003 operating system, you must enable the Windows XP style for windows and buttons. Failure to do so results in poor graphics within Infor ERP SyteLine. On the Windows desktop, right-click and choose Properties. Within the Display Properties window, select the Appearance tab. Under Windows and buttons, select Windows XP Style. If the option for Windows XP Style does not appear, you need to start the service called Themes and then try again.

  NOTE: If you’ve applied service pack 8.01.10, this is no longer a requirement. However, we still recommend the Windows XP Style.

Installation Options

There are four options from which to choose when installing to a client machine.
Click Once Client - This option creates the thinnest client possible. In order to install a client in this manner, click once client code must have been installed on the utility server. See Chapter 2, “Setting up the Utility Server” for more information on setting up your utility server to support click once clients.

End User Client - Minimum files and setup for User Interface to Infor ERP SyteLine. This is a remote client that connects to the session server (usually the Utility Server).

Administrative Client - Some additional tools for system administrators are added. The Utility Server requires an Administrative Client, but you can install it on its own machine if you need to (you would do this for a developer environment).

Analyzer Client - Web components and middleware for accessing the Analyzer Web application. The Analyzer allows you to test the viability of alternative planning and scheduling situations using a copy of your database, without affecting your production Infor ERP SyteLine data. For installation and configuration instructions see “Setting Up the Web Server” on page 99.

Configure the Client

After you install one of the End User or Administrative client options, you must configure that client machine with the Infor ERP SL Configuration Wizard. You will find the configuration instructions after the installation instructions in this chapter. Installation and configuration must be performed on all client machines.

NOTE: After you configure the client, see “Run Infor ERP SyteLine” on page 73 for direction on how to launch Infor ERP SyteLine.

Install Click Once Client

In order to set up a client in this manner, you must have already set up your utility server to serve Click Once clients. Set up this kind of client if you want the clients to be thin.

1. Open a web browser.
2. Go to the following URL - http://utilityservername/SLClientDeploy/SyteLine.application
3. A message appears asking if you want to install. Click the Install button.
4. The Infor ERP SyteLine logon screen appears.

Install End User Client

1. Insert the Infor ERP SyteLine CD into the CD-ROM drive of the client machine.
2. After a few seconds, the initial install screen appears. If it doesn’t appear, access the CD-ROM drive and double click **Setup**.
3. Select **Client** as the configuration type. The **Select a Client Type** box appears on the screen. The **Install .NET Framework** button also appears. The text is italicized if it is already installed on your machine. Only Administrative and Click Once Clients require .NET Framework. If you are installing an End User client, you do not need to install .NET Framework.

4. Select **End User Client** from the **Select a Client Type** box.

5. If you wish to install .NET Framework, click the **Install .NET Framework** button, follow the install wizard prompts and then return here.

6. Click the **Install Infor ERP SyteLine** button. The **Welcome** screen appears.
7. Click **Next**. The **Custom Setup** screen appears.

![Custom Setup Screen]

8. Click **Next**. The **Ready to Install the Program** screen appears.
9. Click **Install**.
10. When the installation process is finished, click **Finish** to close the installation screen.

**Configure End User Client**

After you finished the install for the End User Client, you must run the **Infor ERP SL Configuration Wizard** to configure the End User Client.

   ![Infor ERP SL Configuration Wizard]

   Welcome to the Infor ERP SL Configuration Wizard, which will guide you through the configuration process. The list below shows all of the SyteLine components that can be configured on the computer. Select any tasks that you wish to configure at the time. Click Next when you are ready to continue.

   SyteLine Component To Configure
   - End-User Administrative Clients

   Click on any component listed on the left to see a brief explanation regarding what it does.

   ![Infor ERP SL Configuration Wizard]

2. Click Next. The SyteLine Utility Server URL screen appears.

   ![Infor ERP SL Configuration Wizard]

   Select the SyteLine Utility Server URL for this End-User client

   Session Server URL: http://<WebServer>/ID0RequestService/ConfigServer.as

   ![Infor ERP SL Configuration Wizard]

3. Enter the following information:

   - **Session Server URL** - Replace <WebServer> with the name of your web server (usually the Utility Server).


5. Verify that the information is correct, and click Commit. The Configuration Complete screen appears.

6. Click Finish.
7. **Optional** - If you are planning to apply the 8.01.10 service pack, to get the full functionality of the End User Client, you need to copy some DLLs over from the utility server. On the utility server, navigate to the SyteLine folder. Copy the following DLLs:
   - Nevron.Diagram.dll
   - Nevron.Diagram.Shapes.dll
   - Nevron.Diagram.Templates.dll
   - Nevron.Diagram.WinForm.dll
   - Nevron.Presentation.dll
   - Nevron.System.dll
   - MGDiagramDesigner.dll

   Paste those DLLs into the SyteLine folder on the End User Client.

   The setup of an End User Client is now complete. Skip to “Apply Any Available Service Packs” on page 73.

**Install Administrative Client**

1. Insert the **Infor ERP Syteline CD** into the CD-ROM drive of the client machine.
2. After a few seconds, the initial install screen appears. If it doesn't appear, access the CD-ROM drive and double click **Setup**.

![Install Administrative Client Screenshot](image-url)
3. Select **Client** as the configuration type. The **Select a Client Type** box appears on the screen.

4. Select **Administrative Client** from the **Select a Client Type** box.

5. Click the **Install Infor ERP SL** button. The **Welcome** screen appears.
6. Click **Next**. The **Custom Setup** screen appears.

![Custom Setup Screen](image)

7. Click **Next**. The **Ready to Install the Program** screen appears.

8. Click **Install**.

9. When the installation process is finished, click **Finish** to close the installation screen.

**Configure Administrative Client**

After you finished the install for the **Administrative Client**, you must run the **Infor ERP SL Configuration Wizard** to configure the **Administrative Client**.
1. Select **Start>All Programs>Infor>Setup>Infor ERP SL Configuration Wizard**. The **Welcome!** screen appears.

2. Click **Next**. The **SyteLine Utility Server URL** screen appears.

3. Enter the following information:
   - **Session Server URL** - Replace `<WebServer>` with the name of your web server (usually the Utility Server).

4. Click **Next**. The **Review Configuration Changes** screen appears.
5. Verify that the information is correct, and click **Commit**. The **Configuration Complete** screen appears.
6. Click **Finish**. You must now create a configuration.
7. Open **Configuration Manager**. Select **Start>All Programs>Infor>Tools>Configuration Manager**.

8. Click **New**. The **New Configuration** dialog box appears. Give your configuration a name and click **OK**.
9. The **Edit Configuration** screen appears with the Runtime (Client) tab selected.

10. Yellow (or light shading if printing in black and white) has been added to the required fields on this tab just for the purposes of this manual. Notice there are two main sections on this screen, Runtime Application Database and Runtime Forms Database.

   - **Runtime Application Database** - In this section, provide the following information:
     - **User** - Enter the username. You provided this username when you created your application database earlier.
     - **Password** - Enter the password for the username. You provided this password when you created your application database earlier.
     - **Server** - Enter the name of your database server.

       **NOTE:** You can test your entries and your connection to the database server by clicking the Test User button. You will receive a success message if all is well.

   - **Database Name** - Select the name of the application database you created earlier.

   - **Runtime Forms Database** - In this section, provide the following information:
     - **User** - Enter the username. You provided this username when you created your forms database earlier.
     - **Password** - Enter the password for the username. You provided this password when you created your forms database earlier.
     - **Server** - Enter the name of your database server.

       **NOTE:** You can test your entries and your connection to the database server by clicking the Test User button. You will receive a success message if all is well.
- **Database Name** - Select the name of the forms database you created earlier.

- **Form Templates Database Name** - If you created a templates database, select it here.

**Application** - Select the default application of SL801. You can create "applications" with different parameters using the Applications tab on the Configuration Manager.

11. Click the **Objects Metadata** tab.

12. **Enabled** check box - for objects databases in which IDO objects and metadata must be checked in and out for editing using Visual SourceSafe (VSS), select this check box. If you select this check box, you must also designate a VSS server and database on the SourceSafe tab. Using VSS is optional.
13. Click the **Set Objects DB Specification** button. The **Set Objects Metadata Server/Database** screen appears:

![Set Objects Metadata Server/Database screen](image)

14. Provide the following information:

- **User** - Enter the username. This is the user name you supplied for the objects database earlier.
- **Password** - Enter the password. This is the password you supplied for the objects database earlier.
- **Server** - Enter the name of your database server.
- **Database Name** - Select the name of the objects database you created earlier.

15. Click **OK** to close the **Set Objects Metadata Server/Database** screen. A success message appears. Click **OK**.

**NOTE:** If you just set up an Administrative Client in preparation for creating a developer environment, then you are finished with this chapter.

### Start IDO Runtime Development Server

You must start the IDO Runtime Development Server in order for an administrative client to run.

1. Select **Start>All Programs>Infor>Tools>IDO Runtime Development Server**.
2. You can minimize the **IDO Runtime Development Server** application.
Apply Any Available Service Packs

Now that you’ve set up your Database Server, Utility Server, and a client, you are able to log into Infor ERP SyteLine. Before you do so though, you MUST install and apply any available service packs. If no service packs are available, you can log into Infor ERP SyteLine. If you need to apply service packs, see Chapter 6, “Installing and Applying Service Packs” for directions on where to get and how to apply service packs.

Run Infor ERP SyteLine

NOTE: Critical information is contained in the steps immediately below, especially if you are a multi-site user.

Once you have set up your client workstation, you should be able to run Infor ERP SyteLine.

1. Choose Start>All Programs>Infor.
2. Select the icon for Infor ERP SyteLine.

NOTE: When you install an Administrative Client, two icons are placed on the desktop. One is labeled as the Administrative Client. The other icon is not for an Administrative Client and should be deleted.

3. The following Sign In screen appears:

4. Logon as "sa", and provide the sa password; this is the same password used for your SQL sa. This user allows you to enter Infor ERP SyteLine so that you can set up other users and parameters for your system. The "sa" user is a single session user, so you will not be able to logon from another machine with that user ID if you are still logged on as "sa" somewhere else.

5. Select the appropriate configuration name from the Data Source Config field, and click OK. Different configurations point to different databases. Infor ERP SyteLine will open.

6. Open up the License Management form and apply your license. See the Infor ERP SyteLine System Administration Guide for information about the License Management form and how to apply your license.
7. For sites only (not entities), open the **Order Entry Parameters** form and specify the invoice number length in the Invoice Length field. We recommend that you set this field to the maximum length of 12.

**NOTE:** The invoice number length must be the same for all sites in the system. It must be set at each site.

Once the Invoice Length field is set to a non-null value, the value can never be updated.

After you save the change, the system updates about 50 database tables, so it will take a long time to process.

If you are operating a multi-site system, see the *Multi-Site Implementation Guide* for more information about the invoice number length.

8. You can now set up additional users on the Users form and begin using Infor ERP SyteLine.
Setting Up the Planning Server

NOTE: This chapter applies only if you plan to use the Infinite APS or APS Planning modes.

The Planning Server components support the Infor APS Planning activity and Get ATP/CTP functions, which are features associated with the Infinite APS and APS modes. This chapter details how to install the planning server, the analyzer client, and all necessary web server components on one machine.

Requirements

- The Planning Server must have SQL Client Tools installed.
- The Windows Server 2003 machine which houses the Planning Server must be configured as an Application Server role.
- Message Queuing (MSMQ) must be installed. This is necessary to support the web server components.

Install the Planning Server Components

Follow these steps to install the Planning Server components:

1. Insert the Infor ERP SyteLine CD into the CD-ROM drive of the Planning Server machine.
2. After a few seconds, the initial Infor ERP SyteLine install screen appears. If it doesn’t appear, access the CD-ROM drive and double click Setup.
3. In the Select a Configuration Type field, select Utility Server, Planning Server, and Client. In the Select a Client Type, select Analyzer Client.

4. The Install .NET Framework button appears. If you are installing to a Windows Server 2003 machine, .NET Framework is already installed, so you don’t need to click this button (the text on the button is italicized if it is already installed on your computer). If you need to install Install .NET Framework, you can click this button to install. Follow the install wizard prompts and then return here.

5. Click the Install Infor ERP SL button. The Welcome screen appears.
6. Click Next. The Custom Setup screen appears.
7. Expand Client. Ensure the Analyzer Client is selected as in the following screen shot:

8. Expand Utility Server. Choose the settings as shown in the following screen shot:

9. Make sure the Planning Server component is selected and click Next. The Ready to Install the Program screen appears.
10. Click Install.
11. Click Finish to complete the installation.
Creating and Starting ERDB Databases

An Entity Relation Database (ERDB) must be installed and running before you can run APS Planning or use the Get ATP/CTP functions. Use the Planner Manager to create and start ERDBs.

**NOTE:** If you plan to use the Analyzer to analyze multiple sets of data (each set of data is called an "alternative"), you must create and start a separate ERDB for each alternative. You create the alternative records in Infor ERP SyteLine on the Planning Parameters form, on the Sites tab.

For more information about the Planner Manager commands, see the Planner Manager Online Help.

**NOTE:** Do NOT perform these steps through a Remote Desktop Connection.

1. Start the Planner Manager utility. Select **Start>All Programs>Infor>Tools>Planner Manager** from the Windows Start menu. The Planner Manager appears.

2. Click the **Start** button in the Database Manager section of the screen to start the Database Manager.

3. Click the **Create** button in the Databases section of the screen to create a new database.
4. Enter a name for the new database and click the **Create** button. A Command Prompt window displays and prompts you to press a key to continue.

5. Press any key to finish creating the database. The database name appears in the list with the status "Not Started" and a blank server port. You will specify the server port later when you start the database.

   **NOTE:** The names of the databases are not case-sensitive, so the Planner Manager does not allow you to create a database called "Demo" if a database called "demo" already exists.

6. Select the new database in the list and click the **Start** button. The **Specify Start Parameters** dialog appears.

7. In the Port Number field, enter an unused port number for this database to run on. The system limits this selection to ports between 5000 and 65000, to avoid conflicts with ports already in use.

   **NOTE:** If you are starting the database for the first time, you don’t need to select anything in the Option field; the database starts empty automatically. You should always start the database empty because it is populated automatically from the Infor ERP SyteLine application database.

8. Click the **Start** button to start the database. A Command Prompt window appears, prompting you to press any key to continue.
9. Press any key to complete the process. For each ERDB you start, a minimized Command Prompt window appears on your Windows taskbar. Do NOT close the minimized Command Prompt windows for the ERDBs you start.

Sizing the ERDB Database

STOP Do not continue with this section until after you have completely set up the Infor ERP SyteLine system. Your Infor ERP SyteLine database must be populated with your production data before you can perform these steps correctly.

The ERDB database runs in the Planning Server’s memory. Each database field requires a certain memory *depth* (the number of records that can be stored for a field) and *width* (the largest length of an identifier for a record).

Follow these steps to configure your ERDB database to use the appropriate amount of memory for your manufacturing data. The database sizing utility used in this procedure calculates an estimate of your data’s memory requirements and automatically updates all fields in the ERDB schema. If you have a large database with many users, you should do this periodically to make sure your memory is allocated efficiently.

10. Start the Planner Manager utility. Select **Start>All Programs>Infor>Tools>Planner Manager** from the Windows Start menu. The Planner Manager appears.

11. If you have more than one ERDB database, select the database to configure.
12. Click **Run Sizing**. The Select Corresponding SQL Database dialog displays.

13. Enter the SQL connection information to open the Infor ERP SyteLine application database that is associated with the ERDB you are configuring.

14. Click **Select**. The Configure Sizing dialog displays.

15. This dialog displays estimates of the amount of memory needed for those fields for which it can only provide an estimate. The remaining fields are calculated more precisely and therefore are not shown.

   - **Estimated Depth**: Depth represents the maximum number of records a given ERDB field can contain. For example, a value of 200 means your database can contain up to 200 records of this type. Estimated depth is an approximation performed by the sizing utility, and is often larger than what you will need. Also, the inflation factor adjusts this value. Specify the inflation factor on the Planning Parameters form in the Database Inflation Factor field. The default inflation factor is 20% (which means the displayed values are 20% larger than the actual estimate).
Run the Infor ERP SL Configuration Wizard

You need to run the wizard to configure some components placed on this planning server.

1. Select Start>All Programs>Infor>Setup>Infor ERP SL Configuration Wizard.
3. Select the following components to configure (not all possible components are listed below, only ones that are necessary for this planning server setup):
   - **Analyzer Client** - This client will connect to the Analyzer Website.
   - **Planning and Scheduling COM+ Components**
   - **Planning and Scheduling Gateway**
   - **Planning and Scheduling Server**
   - **Planning and Scheduling Web**

   NOTE: For the purposes of this chapter, all of the above components were selected. If you chose not to select some of the above items, the following steps will be a bit different.
4. Click **Next**. The **Planning and Scheduling Web COM+ Components** screen appears.

5. Enter the following information:
   - **Service Logon** - Enter your logon using the DOMAIN\Username format.
   - **Password** - Enter the password for your service logon.

6. Click **Next**. The **Planning and Scheduling Gateway Service** screen appears. Setting up this service is necessary if you will be using the Infinite APS or APS planning modes.
7. Click **Add**. The **Planning and Scheduling Gateway Connection Information** screen appears.

8. Enter the following information:
   - **SQL Server Name** - Choose the SQL server name from the drop down list.
   - **SQL Username** - Enter the SQL username.
   - **SQL Password** - Enter the SQL password. You can NOT use a semicolon in your password.
   - **Application Database** - Choose the application database from the drop down list. These are databases on the SQL server.
   - **Polling Interval** - The time delay (in seconds) before the service runs the process that synchronizes the planning database and Infor ERP SyteLine application database. The default interval is 300 seconds.
9. Click **Next**. The **Planning and Scheduling Gateway Service User** screen appears.

10. Enter the following information:
   - **Service Logon** - Enter the service logon using the DOMAIN\Username format. The name must be a member of the network domain.
   - **Password** - Enter the password for the service logon.

11. Click **Next**. The **Planning and Scheduling Gateway Services** screen appears again with information filled in.
12. Click **Next**. The **Planning and Scheduling Server Services** screen appears.

13. Click **Add**. The **Planning and Scheduling Server Connection Information** screen appears.

14. Enter the following information:
   - **SQL Server Name** - Choose the SQL server name from the drop down list.
   - **SQL Username** - Enter the SQL username.
   - **SQL Password** - Enter the SQL password. You can NOT use a semicolon in your password.
- **Application Database** - Choose the application database from the drop down list. These are databases on the SQL server.
- **Port Number** - The port number to use for the service (must be a number from 5000-65000). This must be a different port number than the port on which the planning database is running (you set up the planning database in Chapter 4, “Setting Up the Planning Server”).
- **Temp Directory** - The path to a folder where the server service can write temporary files (such as c:\temp). This directory must allow full control by the local administrator user account.

15. Click **Next**. The **Planning and Scheduling Server Service User** screen appears.

16. Enter the following information:
- **Service Logon** - Enter the service logon using the DOMAIN\Username format. The name must be a member of the network domain.
- **Password** - Enter the password for the service logon.
17. Click Next. The Planning and Scheduling Server Services screen appears with information filled in.

18. Click Next. The Planning and Scheduling Analyzer Web Sites screen appears.
19. Click **Add**. The **Planning and Scheduling Web Connection Information** screen appears.

20. The information on this screen is populated automatically, but you can change it if you need to. Definitions for the fields are as follows:

   - **SQL Server Name** - This is the name of the SQL server where the application database resides.
   - **SQL Username** - This is your SQL username.
   - **SQL Password** - This is the password for the SQL username. You can NOT use a semicolon in your password.
   - **Application Database** - This is the application database residing on the SQL Server.
   - **Startup Page Name** - The base Analyzer access page is Analyzer_SyteLine. Later, you’ll use this name in the URL to connect to the Analyzer from your Web browser (for example, http://mywebserver/analyzer/Analyzer_SyteLine.htm). You may create additional Analyzer pages later, for connecting to other databases. See “Creating Additional Analyzer Start-Up Pages” on page 90 for more information.
21. Click **Next**. The **Planning and Scheduling Analyzer Web Sites** screen appears with information filled in.

22. Click **Next**. The **Analyzer Client Web Server** screen appears.

23. In the **Server Name** field, select the name of the server where the Analyzer Web server components reside, or type it in if it doesn’t appear in the list.

24. Click **Next**. The **Review Configuration Changes** screen appears.

25. Verify that the information is correct, and click **Commit**.

26. When the configuration process is complete, click **Next**.
27. The **Additional Configuration** screen appears.

28. This screen contains two buttons. Both buttons open a separate utility. To learn more about each utility, read each utility's online help. You don’t need to use either button on this screen for the planning server. Click **Finish**.

**Creating Additional Analyzer Start-Up Pages**

If you have more than one Infor ERP SyteLine application database at a given site that you want to be accessible from the Analyzer, follow these steps to create a separate Analyzer configuration for each database (for example, you might want one configuration to analyze demo data and one to analyze your production data).
1. On the Planning server, select Start>All Programs>Infor>Setup>Analyzer Configuration. The Analyzer Configuration screen displays.

2. Click Create New Analyzer Configuration. The Create New Analyzer Configuration screen displays.

3. Enter appropriate information in the fields as follows:
   - **Start-Up Page Name**: Enter a name for this Analyzer configuration, such as "Analyzer_Demo." Later, you'll use this name in the URL to connect to the Analyzer from your Web browser (for example, http://mywebserver/analyzer/Analyzer_Demo.htm).
   - **SQL Server**: Select the name of the SQL server where the database you want to connect to is installed.
   - **SQL User**: Enter the name of the access account for the SQL server (such as "sa").
   - **SQL Password**: Enter the password associated with the SQL user. You can NOT use a semicolon in your password.
   - **Confirm Password**: Enter the SQL password again to confirm.
   - **Database**: Select the database you want this Analyzer configuration to use.
92 | Setting Up the Planning Server

- **Data Source Name**: Enter a name for the ODBC connection to create for this Analyzer configuration (use the same name as the start-up page). The form fills in this name automatically.
- **Registry Key**: Enter a registry key name for the ODBC connection (use the same name as the start-up page). The form fills in this name automatically.
- **Connection Timeout**: Use the default value of 60 seconds.

4. Click **Create**. Click **OK** when the success message displays.
5. Close the **Analyzer Configuration** screen.

**Enter Infor ERP SyteLine Planning Parameters**

The Analyzer requires at least one Site record to be present in the Planning Parameters.

1. On a machine in your environment where the Infor ERP SyteLine client software is set up, start a client session that connects to the Infor ERP SyteLine application database associated with this Analyzer configuration.
2. Navigate to the **Planning Parameters** form.
3. Select the **Sites** tab.

4. Enter appropriate data in these fields:
   - **Alternative**: Enter 0. Alternative 0 is the container for your actual production Infor ERP SyteLine data. If you plan to use the Analyzer to analyze one or more scenarios with copies of your production data, you must create additional alternative records (alternative 1, 2, and so on).
   
   **NOTE**: You may not edit data within alternative 0 in the Analyzer. The alternative 0 data is read-only in the Analyzer.
   
   - **Planning Site**: Enter a site name for this site (even if you're not using multi-site, you still need at least one site record for each alternative).
   - **Priority**: This is the priority sequence in which sites will be replanned during a global multi-site planner run. The sites with the lowest numerical priority values are planned first (0 is lowest). For example, enter 0.
   - **Type**: Enter **Local**. If you are setting up a multi-site planning environment, see the Infor ERP SyteLine online help for instructions on how many "Remote" sites you need to represent.
   - **Planning Host Name**: Enter the name of the server where you installed the Planning and Scheduling Service. If you are following the steps in this manual, the name is the name of your planning server.
   - **Planning Port**: Enter the port number you used when you configured the Planning and Scheduling Service.
- **ERDB Host Name**: Enter the name of the server where you installed the "Planning Server" components (the machine where the ERDB database is running).
- **ERDB Port**: Enter the port number where you started your ERDB database in "Setting Up the Planning Server" on page 75.
- **SQL Host Name**: Enter the name of the server where the Infor ERP SyteLine application database is installed.
- **SQL Database Name**: Enter the name of the Infor ERP SyteLine application database.
- **Timeout**: Enter 60 (seconds). This is the time-out value for contacting remote sites during a run of APS Planning in Global mode.

5. Select **Actions>Save** to save the parameters.

### Test the Analyzer Connection

**NOTE**: The last part of the URL suggested in this section (analyzer_demo.htm) will be different if you gave it a different name earlier in this chapter when you created your analyzer configuration. We used analyzer_demo.htm because that’s the name we used in our example.

You may now test the Analyzer. On the client machine, navigate to http://[webservername]/analyzer/analyzer_analyzer.html in Internet Explorer. The Analyzer application may take a few moments to load.

### Troubleshooting the Analyzer

Most of these errors occur when you try to launch the Analyzer Web page. Some errors also log additional information in the Event Viewer on the Web server that hosts the Middleware and Web components. To access the Event Viewer, select **Start/Programs>Control Panel>Administrative Tools>Event Viewer**.

<table>
<thead>
<tr>
<th>Error Message/Symptom</th>
<th>Explanation/Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Error accessing database 'Default'. See the event viewer on the middleware server for additional details.&quot;</td>
<td>Possible Cause A: The data source name has not been entered correctly in the registry.</td>
</tr>
<tr>
<td>Web Server: &quot;Data source name not found and no default driver specified. Microsoft OLE DB Provider for ODBC Drivers.&quot;</td>
<td>Select Start&gt;Run and type regedit. Search for the Analyzer\Database\Default folder. Double-click on the key DSN. The value should be the name of the ODBC datasource name set up for the Analyzer in the ODBC administrator. If the registry entry is correct, see cause B below. Possible Cause B: An ODBC datasource has not been defined for the Analyzer in the ODBC administrator.</td>
</tr>
<tr>
<td>Error Message/Symptom</td>
<td>Explanation/Solution</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>&quot;Error accessing database 'Default'. See the event viewer on the middleware server for additional details.&quot;</td>
<td>Cause: The SQL Server is down. Check the status of the SQL Server and restart it if necessary.</td>
</tr>
<tr>
<td>Web Server: &quot;Specified SQL server not found. Microsoft OLE DB Provider for ODBC Drivers.&quot;</td>
<td></td>
</tr>
<tr>
<td>&quot;Error accessing database 'Default'. See the event viewer on the middleware server for additional details.&quot;</td>
<td>Cause: The ODBC datasource does not point to the Infor ERP SyteLine application database. Select Start&gt;Settings&gt;Control Panel and double-click the Data Sources (ODBC) icon. Select the System DSNs tab and select the Analyzer DSN. Click the Configure button and proceed through the wizard until you see the &quot;Change the default database to&quot; field. Verify that the correct database is specified.</td>
</tr>
<tr>
<td>Web Server: &quot;Could not find stored procedure 'ApsGetStringsByListIDSp'. Microsoft OLE DB Provider for ODBC Drivers.&quot;</td>
<td></td>
</tr>
<tr>
<td>&quot;Run-time error '429' ActiveX component cannot create object.&quot; May be in combination with a blank screen with a dot in the left hand corner of the browser.</td>
<td>Cause: The application proxy RSN value may contain blank spaces. When you downloaded the Client Package from the admin.htm page, a file was created at C:\Program Files\ComPlus Application&quot;Long QUID Value&quot;. You may have multiple QUID values. Locate the QUID, which contains several APS------.TLB files. Using regedit on client machine, search for the &quot;Long QUID Value&quot; in the registry under HKEY_LOCAL_MACHINE\SOFTWARE\Classes\applID. There should be two registry key entries: RemoteServerName and RunAS. If the RemoteServerName is blank, do the following: Uninstall the Application Proxy on the client machine. On the Web server, delete the export package from the \Inetpub\wwwroot\analyzer\bin directory (apsv50msi &amp; apsv50msi.cab). In Component Services, delete the APSV50 com application. Right-click on the My Computer listing, select Properties, and then select the Options tab. Set the focus on Application proxy RSN field. Make sure the field does not contain spaces (delete any values in the field). Run the analyzer Middleware Setup utility and then reinstall the export package on the client machines.</td>
</tr>
<tr>
<td>Web Server: N/A</td>
<td></td>
</tr>
<tr>
<td>&quot;There are no free planning alternatives. Unable to copy.&quot; (Happens while trying to copy the base alternative to a new alternative on the Analyzer alternatives view.)</td>
<td>You cannot copy data to a planning alternative to which you have previously copied data. In the Analyzer alternatives view, delete the alternative you are trying to copy data to and try again.</td>
</tr>
<tr>
<td>Web Server: N/A</td>
<td></td>
</tr>
<tr>
<td>&quot;Unable to create middleware object&quot; (followed by error code 876). Browser background is blue w/ portion of the navigation bar visible.</td>
<td>Possible Cause A: The Analyzer client and/or middleware server are not installed on a domain. All clients and the middleware server must be installed on a domain. Possible Cause B: The MSDTC service is not running on the Web server. To start the MSDTC service, select Start/Settings/Control Panel and double-click the Services icon. Find the MSDTC service and click the Start button. You should change this service to start automatically (select the service, click the Startup button, and select Automatic).</td>
</tr>
<tr>
<td>Web Server: &quot;The run-time environment was unable to initialize for transactions required to support transactional components. Make sure that MSDTC is running.&quot;</td>
<td></td>
</tr>
</tbody>
</table>
Fine-tuning the Memory Allocation

You may need to change the ERDB schema manually after running the sizing utility. If you need to modify the ERDB schema, follow these steps:

1. Each ERDB database uses a separate schema file named \ol\schema.txt. The schema files are located on the server where you installed the Planning server components, in the Program Files\Infor\Planner\projects\<database name>\ol\dba\ol\cfg folder. In a separate window or instance of your text editor, open the \ol\schema.txt file for the database you are working with. You must make the changes in the \ol\schema.txt file for each existing ERDB.

You should also make the schema changes in the "master" \ol\schema.txt file, located in the \db\ol\dba\ol\cfg subdirectory. If you modify this master version of the database schema, all future ERDBs you create will use those sizing settings (unless you then change the individual schema files).
2. In the ol_schema.txt file, notice the lines that have a `c=<value>` and `d=<value>` statement (shown in bold below). For example:

   ```
   n=Part  t=ke,  f=c,  c=31,  d=100  cr
   ```

   In this example, the depth value (`d=100`) represents the maximum number of part records your database can contain.

   The character width value (`c=31`) represents the character width of the largest part number your database can contain.

3. In the APS Sizing Report, note the requirements for each field. For example, the Part field’s statistics might look like this:

   - Max Width: 32
   - Actual Width: 32
   - Depth: 217

   **NOTE:** The reported character width requirement for the Part field is actually one character larger than your database actually needs—this extra character accounts for a character the system reserves.

4. Return to the `ol_schema.txt` file and enter the reported depth value requirement in the `d=` statement. For example:

   ```
   n=Part  t=ke,  f=c,  c=31,  d=250  cr
   ```

   **NOTE:** Add some buffer to the required depth value to allow for any future growth in your database (you can increase this value later as necessary). The reported depth value represents the estimated space needed at this time. If any records are added above that value, APS Planning will abort and display an error message.

5. Enter the reported width value requirement in the `c=` statement. For example:

   ```
   n=Part  t=ke,  f=c,  c=32,  d=250  cr
   ```

   **NOTE:** The maximum character width for any field is 80. If you have a field that requires more than 80 characters, the system truncates the field. This situation may cause "duplicate key" errors when you run APS Planning.

6. Repeat steps 3-5 for each field that is listed with a depth and/or character width requirement in the `aps.err` file. If a field is not listed in the sizing report, leave it unchanged (Infor ERP SyteLine does not use it).

7. Save the `ol_schema.txt` file.

8. Now you must find out how large the shared memory partition on the Planning server must be to contain your database. On the server where the Planning server components are installed, open a Command Prompt (Start>Programs>Accessories>Command Prompt).

9. Navigate to the `\Program Files\Infor\Planner\projects\<database_name>\ol_dba\ol_cfg` directory.

10. Enter this command:

    ```
    rdmbuild sz=ol_schema.txt, ex
    ```
11. The information this command returns looks something like this:

   135 data dictionary entries required.
   6082531 total bytes.
   1221642 user defined bytes = 39.63%

   RdmBuild done.

   The "total bytes" figure corresponds to the size figure in the header of the ol_schema.txt file:

   size=<value>  ,*Size of shared memory segment

12. Round up the total bytes figure to the nearest MB and enter that figure in the
    size=<value> statement in the ol_schema.txt file.

13. Save the ol_schema.txt file and restart the ERDB database (use the Planner Manager
    program to restart the database with the Start Empty option). If you saved the database
    before modifying the schema, you can now use the Restore function in the Planner
    Manager to restore your database.

14. To populate your ERDB database, run APS Planning in Infor ERP SyteLine.

    If any fields still have insufficient memory allocated, the system generates an error
    message (viewable on the Background Task History form). A more detailed version of
    the message may also appear in the ERRORLOG table in the Infor ERP SyteLine
    application database. For example, the message might look like this: "Unable assign a
    priority to site <site name>]."

Fine-Tuning the Memory Allocation for Depth

The estimated memory depth allocation calculated by the sizing utility may be sufficient for
your needs. However, this report provides only an estimate. You can get a more exact
report of the depth requirements for each field by using the "rdmwh" command line utility.
This utility displays a list of all the fields in the database, with the depth you have defined
and the current actual usage. This information allows you to readjust the depth values to
reflect the current needs of your database more accurately. If you have a large database
with many users, you should do this to make sure your memory is allocated efficiently.

Follow these steps:

1. After running APS Planning, open a Command Prompt.
2. Navigate to the \Program Files\Infor\Planner\projects\<database name>\ol_env folder.
3. Enter this command: set ataenv=c:\program files\Infor\planner\projects\<database
   name>\ol_env\ol_env.txt
   You must reset this environment variable for each database you want to check.
4. Navigate to the \Program Files\Infor\Planner\bin folder.
5. Enter this command: \texttt{rdmwh <refresh rate>}
   The refresh rate is the delay in seconds before the report runs again. For example, if
   you want to refresh the report every 5 seconds, enter \texttt{rdmwh 5}. To run a single report
   (no refresh), enter \texttt{rdmwh}.

   A list displays, showing all the fields in the database, with the current Depth you have
   defined and the current actual usage.
The Web Server components support the Infor ERP SyteLine Analyzer application, Web-based data collection, and the http/xml and .NET web service interfaces into Infor ERP SyteLine. The http/xml interface is used by WinStudio when configured to connect over the Internet, by the replication system when sites are on different intranets, and by the generic External Financial interface.

This chapter describes how to install the Web server components and configure the Analyzer application.

**NOTE:** The utility server acts as a web server, so setting up a separate web server is optional. You can also set up an Analyzer client on the Planning Server as detailed in Chapter 4, “Setting Up the Planning Server.”

**Requirements**

- SQL Client Tools must be installed and configured on the Web server.
- To use the reporting features in the Analyzer client, Crystal Reports version 9 or greater is required on the client machine where you are running the Analyzer.
- Microsoft Message Queuing (MSMQ) is installed.
- Active Server Pages and ASP.NET v1.1.4322 must be allowed on your Windows 2003 Server. If you are running a 64-bit version of your operating system, you will need to run a script to enable ASP.NET v1.1.4322. See http://support.microsoft.com/kb/894435 for more information.
- If you are using Windows Server 2008 R2 and you plan to use data collection, you must enable 32-bit applications in IIS.

**Data Collection Setup**

If you are using Web-based data collection, you must follow the steps in this chapter to install and configure the data collection Web server components.
Install the Web Server Components

Follow these steps to install the Web Server components:

1. Insert the Infor ERP SyteLine CD into the CD-ROM drive of the Web Server.
2. After a few seconds, the initial install screen appears. If it doesn’t appear, access the CD-ROM drive and double click Setup.

3. In the Select a Configuration Type field, select Utility Server (the Utility Server piece contains the web server components).

4. The Install .NET Framework button appears. If you are installing to a Windows Server 2003 machine, .NET Framework is already installed, so you don’t need to click this button (the text on the button is italicized if it is already installed on your computer). If you need to install Install .NET Framework, you can click this button to install. Follow the install wizard prompts and then return here.

5. Click the Install Infor ERP SL button. The Welcome screen appears.
6. Click Next. The Custom Setup screen appears.

7. Make sure the Web Server components are selected.
8. Click Next. The Ready to Install the Program screen appears.
9. Click Install to begin installing the Web Server components.
10. Click Finish to complete the installation.
102  Setting Up the Web Server

Infor ERP SyteLine Installation Guide

Copyright © 2009 Infor

Configure the Web Server Components


2. Select the components you wish to configure. For the purposes of this manual, we selected all components (the default).

<table>
<thead>
<tr>
<th>Component</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Click Once Deployment</td>
<td>Add this component if you want this utility server to act as a Click Once Deployment Server. This allows users to attach to this utility server via a web browser to install a client on their computers. This procedure is described in Chapter 3, “Setting Up a Client Workstation.”</td>
</tr>
<tr>
<td>IDO Request Web Service</td>
<td>This service is required for clients that connect to the IDO Runtime Service using HTTP.</td>
</tr>
<tr>
<td>Inbound Queue Web Service</td>
<td>This component is necessary for asynchronous replication. It accepts replication requests from sites on other intranets.</td>
</tr>
<tr>
<td>Infor Inbox Web Service</td>
<td>This Web service allows users to access their system Inbox using a Web interface without having to log on to the system. Users can do anything in the Web version of the Inbox that they can do in the system version. The Infor Inbox Web Service is accessed using the following URL: <a href="http://UtilityServerName/InforInbox/Inbox.aspx">http://UtilityServerName/InforInbox/Inbox.aspx</a></td>
</tr>
<tr>
<td>Replication Service</td>
<td>This service is used for multi-site environments.</td>
</tr>
<tr>
<td>Replication Listener Service</td>
<td>This service is used for multi-site environments.</td>
</tr>
</tbody>
</table>
3. Click Next. The **SyteLine Click Once Configuration** screen appears.

<table>
<thead>
<tr>
<th>Component</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Collection Web</td>
<td>This component allows for interfacing with remote Data Collection devices.</td>
</tr>
<tr>
<td>Planning and Scheduling COM+ Component</td>
<td>This component loads Planning and Scheduling middleware into COM+ to facilitate network access to Planning and Scheduling analysis.</td>
</tr>
<tr>
<td>Planning and Scheduling Web</td>
<td>Creates a web site to allow Planning and Scheduling analysis via the network.</td>
</tr>
<tr>
<td>End-User Client/Administrative Clients</td>
<td>This component puts a client on the Web Server.</td>
</tr>
</tbody>
</table>

4. Enter the following information:
   - **Virtual Directory Name** - Accept the default of `SLClientDeploy`.
   - **Service Logon** - Enter the service logon using the `DOMAIN\Username` format. The name must be a member of the network domain.
   - **Password** - Enter the password for the service logon.
5. Click Next. The Click Once Application Name screen appears.

6. Enter the following information:

- **Click Once Application Name** - The name you enter here will be the name of the shortcut created by the install. It is also the name that appears in Add/Remove Programs if you wish to uninstall or modify the program.

- **Click Once Webserver Address** - This field is for the name of your web server (usually the name of your utility server). Whatever name is entered here is automatically updated in the Client Deploy URL field below.

7. **Client Deploy URL** - You can not edit this field. The web server portion of the URL is changed immediately if you change the name of the web server in the Click Once Webserver Address field above.
8. Click Next. The **SyteLine IDO Request Web Service** screen appears.

9. Enter the following information:
   - **Virtual Directory Name** - Accept the default of **IDORequestService**.
   - **Service Logon** - Enter the service logon using the DOMAIN\Username format. The name must be a member of the network domain.
   - **Password** - Enter the password for the service logon.

10. Click Next. The **Inbound Queue Web Service** screen appears.

11. Enter the following information:
106 | Setting Up the Web Server

- **Virtual Directory Name** - Accept the default of InboundQueue.
- **Service Logon** - Enter the service logon using the DOMAIN\Username format. The name must be a member of the network domain.
- **Password** - Enter the password for the service logon.

12. Click **Next**. The Infor Inbox Web Service screen appears.

13. Enter the following information:
- **Virtual Directory Name** - Accept the default of InforInbox.
- **Service Logon** - Enter the service logon using the DOMAIN\Username format. The name must be a member of the network domain.
- **Password** - Enter the password for the service logon.
14. Click **Next**. The **Replication Service Username and Password** screen appears.

15. Enter the following information:
   - **Service Logon** - Enter the service logon using the DOMAIN\Username format. The name must be a member of the network domain.
   - **Password** - Enter the password for the service logon.

16. Click **Next**. The **Replication Listener Service Username and Password** screen appears.

17. Enter the following information:
- **Service Logon** - Enter the service logon using the \( \text{DOMAIN} \backslash \text{Username} \) format. The name must be a member of the network domain.
- **Password** - Enter the password for the service logon.

18. Click **Next**. The **Data Collection Web Configuration** screen appears.

19. Enter the following information:
   - **Virtual Directory Name** - Accept the default of `fsdatacollection`.
   - **Service Logon** - Enter your logon using the \( \text{DOMAIN} \backslash \text{Username} \) format.
   - **Password** - Enter the password for your service logon.
20. Click **Next**. The **Planning and Scheduling Web COM+ Components** screen appears.

21. Enter the following information:
   - **Service Logon** - Enter your logon using the DOMAIN\Username format.
   - **Password** - Enter the password for your service logon.

22. Click **Next**. The **Planning and Scheduling Analyzer Web Sites** screen appears.
23. Click **Add**. The **Planning and Scheduling Web Connection** screen appears.

24. Enter or select the following information:

- **SQL Server Name** - Enter the name of the SQL server that contains the desired application database.
- **SQL Username** - Enter the SQL Username.
- **SQL Password** - Enter the SQL Password. You can NOT use a semicolon in your password.
- **Application Database** - Select the application database from the list. The field is grayed out until you enter a SQL Username and SQL password in the fields above it.
- **Startup Page Name** - Enter the name used as the analyzer startup page (ex. Analyzer_SyteLine). Do NOT add .htm or .html to the end of the name.
25. Click **Next**. The **Planning and Scheduling Analyzer Web Sites** screen appears with information filled in.

![Planning and Scheduling Analyzer Web Sites](image)

26. Click **Next**. The **SyteLine Utility Server URL** screen appears.

![SyteLine Utility Server URL](image)

27. In the **Utility Server URL** field, replace "<WebServer>" with the name of your web server.

28. Click **Next**. The **Review Configuration Changes** screen appears.

29. Verify that the information is correct, and click **Commit**.

30. When the configuration process is complete, click **Next**.
31. The **Additional Configuration** screen appears.

32. This screen contains two buttons. Both buttons open a separate utility. To learn more about each utility, read each utility’s online help.

- **Config Manager** - This button opens the Configuration Manager utility. To complete your utility server set up, you MUST use the Configuration Manager. You use this to create different configurations that point to the databases you want to access.

- **Service Config Manager** - This button opens the Service Configuration Manager utility. Use this utility to configure the services included in the toolset.
33. Click the **Config Manager** button on the **Additional Configuration** screen. The **Configuration Manager** utility opens. This utility is also found here - **Start>All Programs>Infor>Tools>Configuration Manager**.

![Configuration Manager](image)

34. Click **New**. The **New Configuration** dialog box appears. Give your configuration a name and click **OK**.
35. The **Edit Configuration** screen appears with the Runtime (Client) tab selected.

![Edit Configuration Screen](image)

36. Yellow (or light shading if printing in black and white) has been added to the required fields on this tab just for the purposes of this manual. Notice there are two main sections on this screen, Runtime Application Database and Runtime Forms Database.

- **Runtime Application Database** - In this section, provide the following information:
  - **User** - Enter the username. You provided this username when you created your application database in the previous chapter.
  - **Password** - Enter the password for the username. You provided this password when you created your application database in the previous chapter.
  - **Server** - Enter the name of your database server.

  **NOTE:** You can test your entries and your connection to the database server by clicking the Test User button. You will receive a success message if all is well.

- **Database Name** - Select the name of the application database you created in the previous chapter.

- **Runtime Forms Database** - In this section, provide the following information:
  - **User** - Enter the username. You provided this username when you created your forms database in the previous chapter.
  - **Password** - Enter the password for the username. You provided this password when you created your forms database in the previous chapter.
  - **Server** - Enter the name of your database server.

  **NOTE:** You can test your entries and your connection to the database server by clicking the Test User button. You will receive a success message if all is well.
- **Database Name** - Select the name of the forms database you created in the previous chapter.
- **Form Templates Database Name** - If you created a templates database, select it here.

**Application** - Select the default application of SL801. You can create "applications" with different parameters using the Applications tab on the Configuration Manager.

37. Click the **Objects Metadata** tab.
38. Click the **Set Objects DB Specification** button. The **Set Objects Metadata Server/Database** screen appears:

![Set Objects Metadata Server/Database](Image)

39. Provide the following information:

**User** - Enter the username. This is the user name you supplied for the objects database in the previous chapter.

**Password** - Enter the password. This is the password you supplied for the objects database in the previous chapter.

**Server** - Enter the name of your database server.

**Database Name** - Select the name of the objects database you created in the previous chapter.

40. Click **OK** to close the **Set Objects Metadata Server/Database** screen. A success message appears. Click **OK**.

41. Click **OK** to close the **Edit Configuration** screen.

42. You are now back to the **Configuration Manager** screen. Click the **Web Servers** tab.

43. Click the **New** button. The **New Web Server** dialog box appears.

44. Enter any name into the lone field in this dialog box and click **OK**.
45. The **New Web Server** dialog box appears.

![](image1)

46. In the **Root URL** field, enter the name of your web server. Use the following syntax - http://webservername.

47. Click **OK**. You can close or minimize the Configuration Manager.

**Set Up Online Help**

You must provide the name of the machine where you access the online help in order for the help to work.

48. Within **Configuration Manager** (Start>All Programs>Infor>Tools>Configuration Manager), click the **Applications** tab.
49. Select the SL801 Application ID and click the Edit button.
50. The Edit Application window appears.
51. Click the Options tab.

![Edit Application Window](image)

52. In the Help Server URL field, enter the following:
   http://helpservername/SyteLine/

   The help server name is the name of the machine where the help resides. The help is on the utility server, so in most cases, the client on the utility server should access the help that is on the utility server.

53. Click OK to close the Edit Application window.

Creating Additional Analyzer Start-Up Pages

If you have more than one Infor ERP SyteLine application database at a given site that you want to be accessible from the Analyzer, follow these steps to create a separate Analyzer
configuration for each database (for example, you might want one configuration to analyze demo data and one to analyze your production data).

1. On the Web server, select **Start>All Programs>Infor>Setup>Analyzer Configuration**. The **Analyzer Configuration** screen displays.

![Analyzer Configuration](image)

2. Click **Create New Analyzer Configuration**. The **Create New Analyzer Configuration** screen displays.

![Create New Analyzer Configuration](image)

3. Enter appropriate information in the fields as follows:
   - **Start-Up Page Name**: Enter a name for this Analyzer configuration, such as "Analyzer_Demo." Later, you'll use this name in the URL to connect to the Analyzer from your Web browser (for example, http://mywebserver/analyzer/Analyzer_Demo.htm).
   - **SQL Server**: Select the name of the SQL server where the database you want to connect to is installed.
   - **SQL User**: Enter the name of the access account for the SQL server (such as "sa").
   - **SQL Password**: Enter the password associated with the SQL user. You can NOT use a semicolon in your password.
Confirm Password: Enter the SQL password again to confirm.

Database: Select the database you want this Analyzer configuration to use.

Data Source Name: Enter a name for the ODBC connection to create for this Analyzer configuration (use the same name as the start-up page). The form fills in this name automatically.

Registry Key: Enter a registry key name for the ODBC connection (use the same name as the start-up page). The form fills in this name automatically.

Connection Timeout: Use the default value of 60 seconds.

4. Click Create. Click OK when the success message displays.

5. Close the Analyzer Configuration screen.

Install and Configure Analyzer Clients

Before you can run the Analyzer on a client machine, you must install and configure the Analyzer client components. To use the reporting features in the Analyzer client, Crystal Reports version 9 or greater is also required on the client machine.

Perform these procedures on each client machine that will run the Analyzer application.

NOTE: The Analyzer is an intranet application and cannot be accessed over the Internet. The server components and clients must be able to establish communication using the Microsoft Distributed Component Object Model (DCOM), which means that the clients and Web server must be on the same private business network.

Installing the Analyzer Client

1. Insert the Infor ERP SyteLine CD into the CD-ROM drive of the client machine.

   After a few seconds, the initial install screen appears. If it doesn’t appear, access the CD-ROM drive and double click Setup.
2. In the **Select a Configuration Type** field, select **Client** and then **Analyzer Client** as shown in the screen shot below.

3. Click the **Install Infor ERP SL** button. The **Welcome** screen appears.

4. Click **Next**. (If you completed an earlier install on this machine, you are given the choice to Modify, Repair or Remove; choose Modify and click **Next**.) The **Custom Setup** screen appears.
5. Expand **Client**. Ensure the Analyzer Client is selected as in the following screen shot:

```
  [Screen shot showing Client: End User, Analyzer Client, Administrative Client]
```

6. Click **Next**. The **Ready To Install (or Modify) the Program** screen appears.

7. Click **Install**.

8. Click **Finish** to complete the installation.

---

**Enter Infor ERP SyteLine Planning Parameters**

The Analyzer requires at least one Site record to be present in the Planning Parameters.

1. On a machine in your environment where the Infor ERP SyteLine client software is set up, start a client session that connects to the Infor ERP SyteLine application database associated with this Analyzer configuration.

2. Navigate to the **Planning Parameters** form.

3. Select the **Sites** tab.

4. Enter appropriate data in these fields:

   - **Alternative**: Enter 0. Alternative 0 is the container for your actual production Infor ERP SyteLine data. If you plan to use the Analyzer to analyze one or more scenarios with copies of your production data, you must create additional alternative records (alternative 1, 2, and so on).

   ```
   NOTE: You may not edit data within alternative 0 in the Analyzer. The alternative 0 data is read-only in the Analyzer.
   ```

   - **Planning Site**: Enter a site name for this site (even if you're not using multi-site, you still need at least one site record for each alternative).

   - **Priority**: This is the priority sequence in which sites will be replanned during a global multi-site planner run. The sites with the lowest numerical priority values are planned first (0 is lowest). For example, enter 0.

   - **Type**: Enter **Local**. If you are setting up a multi-site planning environment, see the Infor ERP SyteLine online help for instructions on how many "Remote" sites you need to represent.

   - **Planning Host Name**: Enter the name of the server where you installed the Planning and Scheduling Service. If you are following the steps in this manual, the name is the name of your planning server.

   - **Planning Port**: Enter the port number you used when you configured the Planning and Scheduling Service.
ERDB Host Name: Enter the name of the server where you installed the "Planning Server" components (the machine where the ERDB database is running).

ERDB Port: Enter the port number where you started your ERDB database in “Setting Up the Web Server” on page 99.

SQL Host Name: Enter the name of the server where the Infor ERP SyteLine application database is installed.

SQL Database Name: Enter the name of the Infor ERP SyteLine application database.

Timeout: Enter 60 (seconds). This is the time-out value for contacting remote sites during a run of APS Planning in Global mode.

5. Select Actions>Save to save the parameters.

Test the Analyzer Connection

NOTE: The last part of the URL suggested in this section (analyzer_demo.htm) will be different if you gave it a different name earlier in this chapter when you created your analyzer configuration. We used analyzer_demo.htm because that’s the name we used in our example.

You may now test the Analyzer. On the client machine, navigate to http://[webservername]/analyzer/analyzer_demo.htm in Internet Explorer. The Analyzer application may take a few moments to load.

Troubleshooting the Analyzer

Most of these errors occur when you try to launch the Analyzer Web page. Some errors also log additional information in the Event Viewer on the Web server that hosts the Middleware and Web components. To access the Event Viewer, select Start>Programs>Control Panel>Administrative Tools>Event Viewer.

<table>
<thead>
<tr>
<th>Error Message/Symptom</th>
<th>Explanation/Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Error accessing database 'Default'. See the event viewer on the middleware server for additional details.&quot;</td>
<td>Possible Cause A: The data source name has not been entered correctly in the registry. Possible Cause B: An ODBC datasource has not been defined for the Analyzer in the ODBC administrator.</td>
</tr>
<tr>
<td>Web Server: &quot;Data source name not found and no default driver specified. Microsoft OLE DB Provider for ODBC Drivers.&quot;</td>
<td>Select Start&gt;Run and type regedit. Search for the Analyzer\Database\Default folder. Double-click on the key DSN. The value should be the name of the ODBC datasource name set up for the Analyzer in the ODBC administrator. If the registry entry is correct, see cause B below.</td>
</tr>
<tr>
<td>Error Message/Symptom</td>
<td>Explanation/Solution</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------------------</td>
</tr>
</tbody>
</table>
| **“Error accessing database 'Default'. See the event viewer on the middleware server for additional details.”**  
Web Server: "Specified SQL server not found. Microsoft OLE DB Provider for ODBC Drivers." | Cause: The SQL Server is down. Check the status of the SQL Server and restart it if necessary. |
| **“Error accessing database 'Default'. See the event viewer on the middleware server for additional details.”**  
Web Server: "Could not find stored procedure 'ApsGetStringsByListIDSp'.  
Microsoft OLE DB Provider for ODBC Drivers." | Cause: The ODBC datasource does not point to the Infor ERP SyteLine application database.  
Select Start>Settings>Control Panel and double-click the Data Sources (ODBC) icon. Select the System DSNs tab and select the Analyzer DSN. Click the Configure button and proceed through the wizard until you see the “Change the default database to” field. Verify that the correct database is specified. |
| **“Run-time error ‘429’ ActiveX component cannot create object.” May be in combination with a blank screen with a dot in the left hand corner of the browser.**  
Web Server: N/A | Cause: The application proxy RSN value may contain blank spaces.  
When you downloaded the Client Package from the admin.htm page, a file was created at C:\Program Files\ComPlus Application\"Long QUID Value". You may have multiple QUID values. Locate the QUID, which contains several APS------.TLB files. Using regedit on client machine, search for the "Long QUID Value" in the registry under HKEY_LOCAL_MACHINE\SOFTWARE\Classes\applID. There should be two registry key entries: RemoteServerName and RunAS. If the RemoteServerName is blank, do the following:  
Uninstall the Application Proxy on the client machine. On the Web server, delete the export package from the \Inetpub\wwwroot\analyzer\bin directory (apsv50msi & apsv50msi.cab). In Component Services, delete the APSV50 com application. Right-click on the My Computer listing, select Properties, and then select the Options tab. Set the focus on Application proxy RSN field. Make sure the field does not contain spaces (delete any values in the field). Run the analyzer Middleware Setup utility and then reinstall the export package on the client machines. |
| **“There are no free planning alternatives. Unable to copy.” (Happens while trying to copy the base alternative to a new alternative on the Analyzer alternatives view.)**  
Web Server: N/A | You cannot copy data to a planning alternative to which you have previously copied data. In the Analyzer alternatives view, delete the alternative you are trying to copy data to and try again. |
| **“Unable to create middleware object” (followed by error code 876). Browser background is blue w/ portion of the navigation bar visible.**  
Web Server: “The run-time environment was unable to initialize for transactions required to support transactional components. Make sure that MSDTC is running.” | Possible Cause A: The Analyzer client and/or middleware server are not installed on a domain. All clients and the middleware server must be installed on a domain.  
Possible Cause B: The MSDTC service is not running on the Web server.  
To start the MSDTC service, select Start/Settings/Control Panel and double-click the Services icon. Find the MSDTC service and click the Start button. You should change this service to start automatically (select the service, click the Startup button, and select Automatic). |
Fine-tuning the Memory Allocation

You may need to change the ERDB schema manually after running the sizing utility. If you need to modify the ERDB schema, follow these steps:

1. Each ERDB database uses a separate schema file named `ol_schema.txt`. The schema files are located on the server where you installed the Planning server components, in the `Program Files\Infor\Planner\projects\<database name>\ol_dba\ol_cfg` folder. In a separate window or instance of your text editor, open the `ol_schema.txt` file for the database you are working with. You must make the changes in the `ol_schema.txt` file for each existing ERDB.

You should also make the schema changes in the "master" `ol_schema.txt` file, located in the `\db\ol_dba\ol_cfg` subdirectory. If you modify this master version of the database schema, all future ERDBs you create will use those sizing settings (unless you then change the individual schema files).
2. In the `ol_schema.txt` file, notice the lines that have a `c=<value>` and `d=<value>` statement (shown in bold below). For example:

```
Part     t=ke, f=c, c=31, d=100
```

In this example, the depth value (d=100) represents the maximum number of part records your database can contain.

The character width value (c=31) represents the character width of the largest part number your database can contain.

3. In the APS Sizing Report, note the requirements for each field. For example, the Part field’s statistics might look like this:

- Max Width: 32
- Actual Width: 32
- Depth: 217

   **NOTE:** The reported character width requirement for the Part field is actually one character larger than your database actually needs—this extra character accounts for a character the system reserves.

4. Return to the `ol_schema.txt` file and enter the reported depth value requirement in the `d=` statement. For example:

```
Part     t=ke, f=c, c=31, d=250
```

   **NOTE:** Add some buffer to the required depth value to allow for any future growth in your database (you can increase this value later as necessary). The reported depth value represents the estimated space needed at this time. If any records are added above that value, APS Planning will abort and display an error message.

5. Enter the reported width value requirement in the `c=` statement. For example:

```
Part     t=ke, f=c, c=32, d=250
```

   **NOTE:** The maximum character width for any field is 80. If you have a field that requires more than 80 characters, the system truncates the field. This situation may cause "duplicate key" errors when you run APS Planning.

6. Repeat steps 3-5 for each field that is listed with a depth and/or character width requirement in the `aps.err` file. If a field is not listed in the sizing report, leave it unchanged (Infor ERP SyteLine does not use it).

7. Save the `ol_schema.txt` file.

8. Now you must find out how large the shared memory partition on the Planning server must be to contain your database. On the server where the Planning server components are installed, open a Command Prompt (Start>Programs>Accessories>Command Prompt).

9. Navigate to the `\Program Files\Infor\Planner\projects\<database name>\ol_dba\ol_cfg` directory.

10. Enter this command:

```
rdmbuild sz=ol_schema.txt, ex
```
11. The information this command returns looks something like this:

   135 data dictionary entries required.
   6082531 total bytes.
   1221642 user defined bytes = 39.63%

   RdmBuild done.

   The "total bytes" figure corresponds to the size figure in the header of the ol_schema.txt file:

   size=<value> , *Size of shared memory segment

12. Round up the total bytes figure to the nearest MB and enter that figure in the size=<value> statement in the ol_schema.txt file.

13. Save the ol_schema.txt file and restart the ERDB database (use the Planner Manager program to restart the database with the Start Empty option). If you saved the database before modifying the schema, you can now use the Restore function in the Planner Manager to restore your database.

14. To populate your ERDB database, run APS Planning in Infor ERP SyteLine.

   If any fields still have insufficient memory allocated, the system generates an error message (viewable on the Background Task History form). A more detailed version of the message may also appear in the ERRORLOG table in the Infor ERP SyteLine application database. For example, the message might look like this: "Unable assign a priority to site <site name>]."

Fine-Tuning the Memory Allocation for Depth

The estimated memory depth allocation calculated by the sizing utility may be sufficient for your needs. However, this report provides only an estimate. You can get a more exact report of the depth requirements for each field by using the "rdmwh" command line utility.

This utility displays a list of all the fields in the database, with the depth you have defined and the current actual usage. This information allows you to readjust the depth values to reflect the current needs of your database more accurately. If you have a large database with many users, you should do this to make sure your memory is allocated efficiently.

Follow these steps:

1. After running APS Planning, open a Command Prompt.
2. Navigate to the \Program Files\Infor\Planner\projects\<database name>\ol_env folder.
3. Enter this command:  set ataenv=c:\program files\Infor\planner\projects\<database name>\ol_env\ol_env.txt

   You must reset this environment variable for each database you want to check.

4. Navigate to the \Program Files\Infor\Planner\bin folder.
5. Enter this command: `rdmwh <refresh rate>`

The refresh rate is the delay in seconds before the report runs again. For example, if you want to refresh the report every 5 seconds, enter `rdmwh 5`. To run a single report (no refresh), enter `rdmwh`.

A list displays, showing all the fields in the database, with the current Depth you have defined and the current actual usage.

---

**Connecting to Web-Based Data Collection**

Use the name of the data collection virtual directory installed previously in the URL to connect to Web-based data collection from your specific device. For example, enter `http://mywebservername/datacollectionvirtualdirectoryname/login.asp?browser=stylesheetname`, where `stylesheetname` is the name of the specific style sheet used. Enter one of the values below in the URL to use that stylesheet.

The Web-based data collection style sheets are installed on the Web server at `C:\INETPUB\wwwroot\fsDataCollection\Web`, which contains the following subdirectories.

<table>
<thead>
<tr>
<th>Subdirectory</th>
<th>Style Sheet Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1620</td>
<td>1620</td>
<td>For TRAKKER 2425 with Intermec dcBrowser.</td>
</tr>
<tr>
<td>Wedge</td>
<td>Wedge</td>
<td>For a wedge reader running Internet Explorer with barcode data entry.</td>
</tr>
<tr>
<td>Default</td>
<td>Default</td>
<td>For a wedge reader running Internet Explorer with barcode data entry and keyboard data entry.</td>
</tr>
</tbody>
</table>

For instance, use the URL `http://mywebservername/datacollectionvirtualdirectoryname/login.asp?browser=default` to connect with the default style sheet. See “Configuration Groups” on page 129 if you’ve created a configuration group.

You can also create a custom xml menu file for each user. If you do so, you must enter the name of the XML menu file for each user in the Web DC Menu field on the Users form. This field defaults to * (asterisk), which uses the standard XML menu file (Menu.xml). This file is installed on the web server at: `C:\inetpub\wwwroot\FSDataCollection\Web\Wedge\Menu\Menu.xml`. See the online help for this field for more information.

---

**NOTE:** If you run into connection timeout errors (Server.Execute failed), you may need to increase the connection timeout setting on your web server machine. Within the **Internet Services Manager**, select your **Web Server** in the left pane, then select the DC Web site in the right pane and right-click on it. Select **Properties**. Select the **Web Site** tab. Increase the **Connection Timeout**, and make sure that **HTTP Keep-Alives Enabled** is selected.
You can use any Web-based data collection device that supports Internet Explorer or Intermec dcBrowser. You may need to modify a provided stylesheet or create your own depending on your specific hardware requirements.

**NOTE:** You can view data collection Web pages in your preferred language by selecting that language in Internet Explorer. See Internet Explorer online help for more information on specifying which language to use for displaying web pages.

You may need to close Internet Explorer and then log back into Web data collection to view the preferred language if you changed it while logged in to Web data collection.

Refer to the documentation for your data collection device for more information. See the *Intermec Equipment Installation Guide* (at http://www.infor365.com) for more information on using the TRAKKER 2425 with Intermec dc Browser.

### Configuration Groups

If you have used the Configuration Manager (on the Utility Server or Web Server) to create configuration groups, and you want to just see the configurations in a specific group (in this case a group named "DC"), use the URL:

```
http://mywebservrename/datacollectionvirtualdirectoryname?ConfigGroup=DC
```

See the online help (click the Help button on the **Configuration Groups** tab of the **Configuration Manager** on the Utility or Web Server) for more information about Configuration Groups.
Requirements

- If you have third-party applications, ensure that they are updated to the proper level. Contact your third-party application provider for that information.
- You can not use Remote Desktop Connection to install and apply service packs. You must install and apply service packs directly on the machine you want to be affected.
- If you installed your system from the CD and not a network location, you will be prompted to place the CD in the machine on which you are applying a service pack. If you did not install Infor ERP SyteLine from the CD, and the location of the files is the same as it was when you installed, you will not be prompted for the CD.

Terminology

In this section, it is important to note the difference between the words install and apply.

Install - Run the service pack executable which launches the InstallShield Wizard. The executable installs files from the service pack.

Apply - Run the Infor ERP SL Configuration Wizard AFTER installing the service pack. This needs to be done on all servers and clients EXCEPT the database server and Click Once Clients.

NOTE: All clients (except Click Once clients) must be updated any time the client toolset is changed. To see if the client toolset has changed, refer to the readme file on the Installation Advisories and Software Patches web page for the service pack you are applying.

Once you install a service pack, it cannot be uninstalled.
Install and Apply Service Pack

NOTE: Before beginning this process, everyone MUST be logged out of the system.

DO NOT apply the service pack to the forms database. You must use the FormSync utility to apply new form definitions from the service pack to the forms database after you have completed all other steps described in this chapter. FormSync allows you to merge form customizations with fixes and enhancements provided in the service pack. For instructions on using FormSync, see chapter Chapter 8, “Synchronizing Forms Databases.”

You do not have to apply a service pack to an objects database, and the Infor ERP SL Configuration Wizard provides no options to do so. The objects database stays at the base version level permanently. Additionally, the templates database (if you have one) is updated to the new level only if the service pack contains updates to that database; if not, it remains at the previous level.

Service Packs for Infor ERP SyteLine are available from our website at http://www.infor365.com. After you login to the site, follow the Documentation link to the SyteLine area and then from there the link to the service packs (software patches).

NOTE: After you install the service pack, your task is not complete. You MUST run the Infor ERP SL Configuration Wizard as detailed below. If you only install the service pack (run the executable) but do not then run the Infor ERP SyteLine Configuration Wizard, users will not be able to log into the system.

To install and then apply the service pack, perform the following steps:

1. Log everyone out of the system.
2. Download the latest appropriate service pack from our website.

   The two executable files are:

   - **Migration** - Run this on the database server only if you installed Infor ERP SyteLine Migration components.
   - **ERP** - Run this on all servers and clients (except Click Once Clients).

   NOTE: Clients only need to be updated when the client toolset has changed. To see if the client toolset has changed, refer to the readme file on the **Installation Advisories and Software Patches** web page for the service pack you are applying.
3. Double-click the executable on the appropriate server and/or client.

   NOTE: Install the service pack on the database server(s) before installing and applying it on any other server or client. This is necessary so that later on when you need to create a new forms database, the forms database you create will be at the proper level.

4. The InstallShield Wizard launches. This part of the process varies depending on which server or client you are on.

   NOTE: Depending on how your system was installed, you may be prompted here for the Infor ERP SyteLine CD.

Follow the prompts until the wizard is complete.

   NOTE: On the utility server and planning server, you are prompted to reboot after running the service pack. You MUST do this. We recommend you also reboot the client machine before continuing.

5. Run the Infor ERP SyteLine Configuration Wizard (from the Start menu, navigate to Infor>Setup>Infor ERP SL Configuration Wizard) on each client and server (except the database server or a Click Once Client) where a service pack was installed. Follow the prompts until the wizard is complete.

   NOTE: When you install the service pack on the database server, updates are made but NOT to the databases. Databases are updated when you install and then apply the service pack on the utility server.

On the utility server, when you run the Infor ERP SL Configuration Wizard, you have the option to apply the service pack to individual databases or not. If you are using Master Sites, you MUST upgrade those sites first. DO NOT apply the service pack to a forms database.

   Also, if you have a Click Once Client, you do not have to install and apply the service pack on the client; in this case, on the utility server when you run the Infor ERP SL Configuration Wizard, "Click Once Deployment" is selected by default. This updates everything necessary for Click Once Clients. Users of Click Once Clients do not need to do anything on their machines. The next time they access Infor ERP SyteLine from their machines, they will receive a new version of the client automatically.

6. Reapply your Infor ERP SyteLine license on the License Management form (or just apply it for the first time if you haven’t yet applied it). See the Infor ERP SyteLine System Administration Guide for information about the License Management form and how to apply your license.
Synchronize the Forms Database

You must use FormSync to complete the service-pack process on the forms database. For instructions on using FormSync, see Chapter 8, “Synchronizing Forms Databases.”
Upgrading Infor ERP SyteLine

This chapter details how to upgrade from one version of SyteLine 7 or 8 to another version of Infor ERP SyteLine 8 (for example, from SyteLine 7.05 to Infor ERP SyteLine 8.01 OR Infor ERP SyteLine 8.00 to Infor ERP SyteLine 8.01).

This chapter does not contain information on service packs or migrating from a PROGRESS version of SyteLine ERP (versions 5 and 6) to Infor ERP SyteLine 8.01. For that information, see one of the following chapters:

**Service Packs** - See Chapter 6, “Installing and Applying Service Packs”.

**Migrating** - See Chapter 9, "Migrating From SyteLine 5 or SyteLine 6 (Single Site)" OR Chapter 10, “Converting From SyteLine 5 or SyteLine 6 (Multi-Site)".

---

**NOTE:** Before you upgrade to a new version, make sure you do not have bad data such as duplicate language codes; otherwise, the upgrade will fail.

Before performing an upgrade, make sure to back up your database. The upgrade process will NOT result in a loss of data.

This chapter does not contain information on how to upgrade from a SyteLine 7 objects database to an Infor ERP SyteLine 8.01 database. If you made customizations to your objects database that you want to keep, you need to follow the procedure on our online support web page. Use solution ID 667616 for this procedure.

We highly recommend that you set up a separate test environment on which to perform the upgrade. The test environment should mirror your live environment. Use the test environment to work out any issues and to time the length of the upgrade. Once the upgrade is complete and tested on the test environment, you can perform the upgrade on your production environment. See “Upgrade SyteLine” on page 137 for detailed instructions on how to perform the upgrade.

When proceeding though the steps in the upgrade, you are referred to other chapters in this installation guide, so it is a good idea to have this guide available in some way. It is highly recommended that you perform an upgrade on a test environment first. This environment should mirror your current production environment; the person performing the upgrade should be very familiar with how to set up a test environment that mirrors your current production environment.
Requirements

**NOTE:** Line item tables (trnitem, coitem, etc.) in SyteLine 7.04 and later no longer contain a supplementary quantity (suppl_qty) field. Any information you have stored in this field will be lost. We have provided an improved way to calculate supplementary quantities for European Community SSD reporting:

1. In the Commodity Codes form, enter a supplementary quantity conversion factor for each commodity code where supplementary units are required. This factor is used to automatically convert quantities from the standard unit of measure to the supplementary unit of measure for the commodity.
2. Use the new Supplementary Units Conversion Factor Update Utility to make mass updates to line item records that contain the commodity codes.

For more information on the supplementary units conversion factor, see the online help.

Any replication rules that had the category Bus-Vendor are changed to category ESB.

- **If using Windows Server 2008 R2** - If you are upgrading to version 8.01.10, you MUST get On Demand Patch 126311 from the support site and apply it before upgrading.

- **Service Pack Levels** - For the version you are upgrading TO, you must apply the latest service pack prior to running the upgrade process. For the version you are coming FROM, you must be at least at the following minimum service pack levels:
  - **SyteLine 7.03** - Latest service pack. See the website for the latest service pack.
  - **SyteLine 7.04** - Latest service pack. See the website for the latest service pack.
  - **SyteLine 7.05** - Latest service pack. See the website for the latest service pack.
  - **SyteLine 8.00** - Latest service pack. See the website for the latest service pack.

- Post all unposted A/R Payments, A/R Invoices, and Debit and Credit Memos prior to the upgrade.
- If you are using a master site, you must unshare the parms_all and chart_all tables (if they are shared). You MUST upgrade your master site first. After all sites have been upgraded, you can re-share those tables in your master site.
- Any modifications to stored procedures, triggers, and functions have been made in accordance with the methods described in *Modifying Infor ERP SyteLine*. The chapter "Architectural Guidelines for Customers Modifying SyteLine" provides techniques for reapplying modifications after a version upgrade or application of a service pack. You may also have to reapply modifications to IDO metadata, IDO .cls files, .asp pages, report .rpt files, background-task definitions, and SQL Server table columns. See "Effects of Service Packs and Upgrades on Customizations and Modifications" in *Modifying Infor ERP SyteLine*.
- Init data has been customized in accordance with the approved method. Init data does not need to be re-installed after upgrade.
If you are upgrading from a version of SyteLine earlier than 8.01 to version 8.01 or higher, you must delete all background tasks with a status of WAITING and then (if necessary) re-create after upgrading. Delete the WAITING tasks on the Active Background Tasks form.

Add-on packages must be reinstalled after the upgrade.

Upgrades to SyteLine and any integrated Infor SOA-enabled application (for example) must be performed concurrently because the upgraded versions rely on each other. If SyteLine is integrated to any Infor SOA-enabled application, you MUST publish all BODs after the upgrade to the Infor SOA-enabled application is complete.

Prior to the upgrade, you must disable audit logging on the Process Defaults form. Once the upgrade is complete, you can re-enable audit logging on the Process Defaults form, which will regenerate all affected triggers.

If you are using APS and have alternatives defined on the Sites tab of the Planning Parameters form, after you are finished upgrading, save any data and then you must delete the alternatives. You can then add them back if you wish.

**Upgrade SyteLine**

1. Read and understand all the requirements listed above. The requirements and notes earlier in this chapter are very important. Do not proceed with the upgrade before reading and understanding them all.

2. Back up your SyteLine application databases.

3. Make sure that all users are logged out of the system.

4. Uninstall your old version of SyteLine. This is true for all pieces of your system; the database server, utility server, all clients (except for Click Once clients; you do not need to uninstall a Click Once client), planning server, and web server components. See “Uninstalling Infor ERP SyteLine” on page 221 for uninstall instructions.

5. Install the new Infor ERP SyteLine version (this means a working version that must include the database server piece and the utility server piece at a minimum; we recommend you set up a test environment that mirrors your live environment; see the note earlier in this chapter on page 135). On the database server, make sure to install the database upgrade utility. See Chapter 1, “Setting Up the Database Server” for instructions on how to install Infor ERP SyteLine and the database upgrade utility on the database server. Chapter 2, “Setting up the Utility Server” details how to install the utility server piece.

   **NOTE:** In SyteLine ERP 8.0 and above, you MUST have an Objects database. This database is created during the installation process on the Database Server (when going through the Configuration Wizard).
6. Apply the latest service pack (if one exists) prior to running the upgrade process. The service pack chapter, Chapter 6, "Installing and Applying Service Packs" tells you to re-apply your license. You can wait to do that until after you’ve completed the upgrade process as in some cases (see note below) you need to apply your license when that process is complete. See the Infor ERP SyteLine System Administration Guide for information about the License Management form and how to apply your license.

**NOTE:** Following an upgrade, you MUST re-apply your license only if you are coming from any version of SyteLine 7. If you are coming from SyteLine 8.0 or above, you DO NOT need to re-apply your license following an upgrade. Any time (no matter the version) you apply a service pack though, you DO need to re-apply your license.

7. From the **Start** menu on the database server navigate to **Infor>Tools>Infor Database Upgrade**.

**NOTE:** If this option does not exist, then you didn’t install it when you set up the database server with the new version of Infor ERP SyteLine. Go back to Chapter 1, “Setting Up the Database Server”, and install the database upgrade utility.

8. The **Infor ERP SL Database Upgrade** screen appears:

9. The **Infor Directory** field defaults to C:\Program Files\Infor. Accept the default or browse to the correct directory.
10. Click Next. The **Select Application Database** screen appears.

![Select Application Database Screen]

11. Fill in the following information:

- **Upgrade Application Database** - Select this checkbox if you want to upgrade a database. Clear the checkbox if you do not want to upgrade a database.
- **SQL Server** - Accept the default of 'local'.
- **Username** - Enter the SQL username; usually 'sa'.
- **Password** - Enter the password for the username.
- **Database** - Select the application database you want to upgrade.
12. Click **Next**. The **Select Forms Database** screen appears.

13. Fill in the following information:

- **Apply Updates to Forms Database** - Select this checkbox if you want to apply updates to the forms database. Clear the checkbox if you do not want to apply updates to the forms database.

  **NOTE:** Once you apply updates to the forms database, you must use FormSync to complete the upgrade of the database after you have completed all other steps described in this chapter. For instructions on using FormSync, see Chapter 8, “Synchronizing Forms Databases.”

- **SQL Server** - Accept the default of 'local'.
- **Username** - Enter the SQL username; usually 'sa'.
- **Password** - Enter the password for the username.
- **Database** - Select the forms database to which you want to apply updates.
14. Click Next. The Select Templates Database screen appears.

15. Fill in the following information:
   - **Apply Updates to Templates Database** - Select this checkbox if you want to apply updates to the templates database (you may not have a templates database). Clear the checkbox if you do not want to apply updates to the templates database.
   - **SQL Server** - Accept the default of 'local'.
   - **Username** - Enter the SQL username; usually 'sa'.
   - **Password** - Enter the password for the username.
   - **Database** - Select the templates database to which you want to apply updates.
16. Click **Next**. The **Select Objects Database** screen appears.

![Image of Select Objects Database screen](image)

17. Fill in the following information:

- **Apply Updates to Objects Database** - Select this checkbox if you want to apply updates to the objects database. Clear the checkbox if you do not want to apply updates to the objects database.

**NOTE:** If you just created a new objects database on the database server because you are upgrading from version 7.05 and below to version 8.00 or higher (during the database server install procedure) then clear this checkbox. Select this checkbox if you are upgrading from any version of 8 to any other version of 8 (from 8.00 to 8.01 for example). You should also select this checkbox if you had a SyteLine 7.05 or lower Objects database and you made customizations to your objects database that you want to keep. See the **Note** on page 135 for directions on how to do that.

- **SQL Server** - Accept the default of 'local'.
- **Username** - Enter the SQL username; usually 'sa'.
- **Password** - Enter the password for the username.
- **Database** - Select the objects database to which you want to apply updates.

18. Click **Next**. The **Review Changes** screen appears.
19. Review the information and click **Commit**.
20. Run the Database Upgrade until you have upgraded all databases you wish to upgrade.
21. When the upgrade is complete, you can view any errors by clicking the **View Logfile** button, and then click **Finish**.

**NOTE:** Once the upgrade is complete, we highly recommend that you check the upgrade log for any errors. A log is created for each database you upgrade and is found in the Logs folder subordinate to the installation directory, typically here - C:\Program Files\Infor\SyteLine\Upgrade\Logs (or you can click the View Logfile button as mentioned above). The log files are created using the name of the upgraded database as part of the name with the following syntax:

```
Upgrade-databasesname.log
```

You should investigate any error reported in the log. You should fix the errors until none are present in the log before you can consider your database to have upgraded successfully.

### Synchronize the Forms Database

You must use FormSync to complete the upgrade of the forms database. For instructions on using FormSync, see Chapter 8, “Synchronizing Forms Databases.”

### Post Upgrade Steps

1. You MUST run the **Rebalance Item Qty Allocated to Prod and WIP** utility. This utility is found within Infor ERP SyteLine. Open the utility and click the **Process** button.
2. If you have multiple Infor ERP SyteLine sites or any external applications, open the **Replication Management** form. Click the **Regenerate Replication Triggers** button.
3. You MUST use the **Update All Tables** form to repopulate tables. Open the **Update All Tables** form. Click the **Filter In Place** button to load the collection (all of the _all tables are selected by default). Click the **Repopulate Tables** button.

### Troubleshooting

If you have modified the application database schema by adding new constraints or updating table definitions, you will most likely get an error when you run the upgrade. If initialization data has been updated, this could cause an error. We recommend that you run through a pilot upgrade on a test database to address possible issues. If schema or initialization data issues persist, contact your service representative.
You must use the FormSync utility to synchronize your forms database if

- You installed a patch or service pack, or
- You applied a major upgrade to SyteLine (example: you went from Infor ERP SyteLine 8.00 to Infor ERP SyteLine 8.01).

In the synchronization process, FormSync merges customizations with new vendor-level forms from the patch, service pack, or upgrade, and it replaces old vendor-level forms with new vendor-level forms.

Synchronization requires two data configurations, a Source and a Target. The Source configuration contains new form definitions from the patch, service pack, or upgrade. The Target configuration contains your customizations and the old form definitions.

The end result of synchronization is an updated Target forms database, which contains your customizations merged with new form definitions, along with new vendor-level form definitions. This database serves as your new production forms database.

The Source forms database is used only during synchronization. It does not figure in Infor ERP SyteLine operation.

**NOTE:** Synchronization applies only to customizations made with WinStudio edit mode, that is, customizations to forms in the client tier. It does not apply to modifications to IDOs, stored procedures, triggers, or other components of Infor ERP SyteLine.

For more information about synchronization, See Appendix A, “FormSync.”

**Requirements**

- Before you synchronize a forms database, complete all steps described in Chapter 6, “Installing and Applying Service Packs,” or Chapter 7, “Upgrading Infor ERP SyteLine.” In particular, be sure that
  - You did NOT apply the service pack to the forms database with the Infor ERP SyteLine Configuration Wizard.
  - You installed the service pack on the forms database server.
  - You upgraded the forms database with the Infor ERP SL Upgrade Wizard.
- Before you use FormSync, you must configure a file-comparison utility. If you have not already configured a utility, see Appendix A, “FormSync,” for instructions.
Rephrasing effectively to FormSync prompts usually requires a detailed understanding of form customizations. See Appendix A, "FormSync."

FormSync by default deletes all vendor forms in the TARGET configuration forms database and copies them from the SOURCE configuration forms database. The SOURCE configuration forms database must have all third-party products installed before proceeding with a synchronization.

Synchronize a Forms Database

NOTE: If you have multiple forms databases, the procedure described in this section must be completed for each forms database.

Step 1. Create a Source Forms Database

On the database server, create a Source forms database that incorporates new form definitions from the service pack or upgrade:

1. From the Start menu on the forms database server, navigate to Infor>Setup and click Infor ERP SL Configuration Wizard.
2. Select Create SyteLine Databases.
3. Click Next.
4. Click Add.
5. Select Forms Database.
6. On the Database Name and Location page, type a New SQL Database Name such as SyteLine_Forms_Source.
7. Click Next.
8. Click Next, Commit, and Finish.

Step 2. Create a Source Configuration

On the utility server, create a Source configuration:

1. Open the Configuration Manager utility. From the Windows Start menu, navigate to Infor>Tools>Configuration Manager.
2. On the Configurations tab, click New.
3. Type a Configuration Name, such as SyteLine_Synchronization_Source and then click OK.
4. The Edit Configuration screen appears.
5. Make sure you are on the Runtime (Client) tab.
6. On the database server side of the screen, provide user, password, server, database name, and application information. For more detailed instructions on how to fill out this information or the information in the next step, see Chapter 2, “Setting up the Utility Server”.

NOTE: An application database is required in any configuration. The database is not changed in the synchronization process.
7. On the forms side of the screen, provide user, password, server, database name information. The name of the forms database is the forms database that you created in “Step 1. Create a Source Forms Database” (our example was *SyteLine_Forms_Source*).

8. Click **OK**. Your newly-created configuration should appear in the list of configuration names.

### Step 3. Synchronize the Source and Target Configurations

The Target configuration in the instructions below is any configuration that points to your production forms database, which contains your customizations and old form definitions.

**NOTE:** It is recommended that you set the SQL Server recovery model for the Target forms database to Simple. See your documentation for SQL Server Management Studio for instructions on setting the recovery model.

If the Source and Target forms databases reside on different servers, you must define the server that contains the Source forms database as a linked server in the server that contains the Target forms database. Refer to Microsoft SQL Server documentation for instructions on configuring linked servers.

On the utility server, synchronize the Source and Target configurations with FormSync.

1. Back up your production forms database.
2. From the **Start** menu on the utility server, navigate to **Infor>Tools** and click **FormSync**.
3. In the **Source** list, select the configuration you created in "Step 2. Create a Source Configuration" (our example was *SyteLine_Synchronization_Source*).
4. In the **Target** list, select a configuration that points to your production forms database.
5. Click **OK**.
6. Click **Synchronize**.
7. Reply to prompts to keep, remove, or edit customizations.

The amount of time required to synchronize customizations depends on

- The number of customizations in the Target
- The speed of the database connection
- Whether Source and Target forms databases are on the same server.

Merging occurs in one transaction. The entire transaction is rolled back if you click **Stop Synchronization**.

### Step 4. Test the Target Forms Database

Test the results of synchronization. Synchronization is an extension of the customization process, and all merged customizations in the Target configuration should be examined and tested.

See Appendix A, “FormSync,” for suggestions on testing.
Migrating From SyteLine 5 or SyteLine 6 (Single Site)

NOTE: If you are migrating a multi-site database, see “Converting From SyteLine 5 or SyteLine 6 (Multi-Site)” on page 173.

When migrating from SyteLine 5 or 6 to Infor ERP SyteLine 8.01, we recommend that you work with your affiliate or professional services consultant. Migrations can be quite complex and time-consuming. You will obtain significant benefit by working with individuals experienced in this process. There are limits to what the Infor Support team can do to assist when migration issues are encountered, due to the variability of the process between customer environments.

The steps in this chapter detail how to migrate from SyteLine 5 or SyteLine 6 on Progress to Infor ERP SyteLine 8.01 on SQL. If you are running a version of SyteLine earlier than SyteLine 5, you need to upgrade to SyteLine 6 before migrating to Infor ERP SyteLine (you could upgrade to SyteLine 5 and migrate from there, but we recommend that you upgrade to SyteLine 6 before migrating to Infor ERP SyteLine).

The steps to upgrade from an earlier version of SyteLine to SyteLine 6 are found in the Getting Started manual for SyteLine 6. You can download this manual from Infor’s web site at http://www.infor365.com.

Requirements

NOTE: In the list of requirements below, there are some paths to programs referenced. These paths and programs will not exist until AFTER you extract the files in the first step of the conversion procedure. Use the list of requirements only as reference. Do not use this list as your step-by-step procedure. The procedure begins AFTER the list of requirements.

- You must have a working Infor ERP SyteLine 8.01 environment already installed and configured (database server and utility server minimum). See “Setting Up the Database Server” on page 15 and “Setting up the Utility Server” on page 25 for installation steps.
- Your computer must have access to the .d files to be unloaded from the source (Progress) database, and access to about the same amount of disk space again (to hold the prepared .d7 files).
If User Extended Tables (UETs) are used in the SyteLine 5 or SyteLine 6 database, access to the Progress database is required to run the program uet-dump.p to unload the UET schema definitions to a flat file (zUETStruct.d7). If the conversion computer does not have access to Progress, the program can be copied to another appropriate computer and the flat file copied back from there.

If a Multi-Byte code-page is used in the SyteLine 5 or SyteLine 6 database, access to the Progress database is required to run the program DumpUTF8.p to unload the data in a common format (data/*.d7w). If the conversion computer does not have access to Progress, the program and its sub-programs ("<InstallDir>\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\<verid>\Dump\*.r") can be copied to another appropriate computer (using the same directory structure) and the data files copied back from there.

If a Single-Byte code-page is used in the SyteLine 6.01 or later database and faster loading is desired for certain large tables (for example, ledger & matltran), access to the Progress database is required to run the program Dump4bcp.p to unload the data from those tables in a post-converted format (data/SQL/*.d7b). If the Conversion computer does not have access to Progress, the program and its sub-programs ("<InstallDir>\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\Data4bcp\*.r" and *.fmt, and "<InstallDir>\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\<verid>\Dump4bcp\*.r") can be copied to another appropriate computer (using the same directory structure) and the data files copied back from there.

Infor ERP SyteLine 8.01 must be installed on this computer. The conversion programs are installed in the installation directory under "\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL". Scripts under "\SyteLine\ApplicationDB\Foreign Keys" (Phase 4) and "\SyteLine\ApplicationDB\Init Data\Empty db" and "\SyteLine\ApplicationDB\Messages" (Final Phase) are also used during the conversion process. See Chapter 1, “Setting Up the Database Server for installation instructions.

You must have installed the Infor ERP SyteLine Database Migration pieces. See Chapter 1, “Setting Up the Database Server for installation instructions.

Enough of SQL Server must be installed in order to have the bcp utility on this computer. SQL Server installation automatically adds the appropriate directory to the system Path.

On the Server Settings Tab of the SQL Server Properties dialog, two-digit year support must be set to match the Progress -yy setting. For example, If -yy 1930 is used in symixrun.pf and admin.pf, then set to “When a two-digit year is entered, interpret it as a year between: 1930 and 2029.” This setting can be adjusted as desired after conversion is complete.

When unloading data from the source SyteLine database(s), one of the following startup parameter combinations must be used:

- `-d mdy`

OR

- `-d ymd -yr4def`

In addition, the following startup parameter may not be used, because its output is not recognizable by the implicit SQL conversion algorithm:

- `-d dmy`
These startup parameters can be used in the unloading session without affecting other logged in users, by utilizing a separate parameter-file. To verify the setting, inspect the trailer of an unloaded .d file for the “dateformat” setting; if -yr4def is used, also inspect any non-empty line in a .d for a table that contains a meaningful date field to verify that a 4-digit year is being output.

Microsoft Data Access Components (MDAC) 2.7 is required for proper operation, due to a bug in earlier versions. If you need the proper version of MDAC, download it from Microsoft’s site: http://www.microsoft.com.

Post all unposted A/R Payments, A/R Invoices, and Debit and Credit Memos prior to the conversion.

Stop the Infor Framework IDO Runtime Service until after migration is completed.

Conversion Steps (Single Site)

Use the following procedure to convert your single site database to Infor ERP SyteLine. We recommend that you read the entire chapter before you begin. Following the “Post-Conversion Tasks” on page 167, the rest of this chapter contains reference material and troubleshooting tips.

(Optional) Run the String Overstuffing Detection Program

Run the string overstuffing detection program ($InstallDir$/SyteLine/ApplicationDB/Upgrade Scripts/Pro2SQL/overstuff.p) in the source database to detect all character fields with values set longer than the display format.

1. Log in to SyteLine.
2. Launch the Progress Query Editor.
3. Enter the following line in the Progress Query Editor:
   ```
   RUN "$InstallDir$/SyteLine/ApplicationDB/Upgrade Scripts/Pro2SQL/overstuff.p"
   ```
   The double-quotes in the example above are necessary due to spaces in the path.
4. Press the F2 key.

**NOTE:** Certain fields deliberately overstuffed by Infor ERP SyteLine standard code are accepted as-is into the target database, and others shown below are accepted as-is into the migration database (if Load Obsolete Data is checked) but are obsolete.

<table>
<thead>
<tr>
<th>Table.Field</th>
<th>Display Format</th>
<th>Data Allowed into Migration Database</th>
</tr>
</thead>
<tbody>
<tr>
<td>*-audit.audit-prog</td>
<td>X(20)</td>
<td>50</td>
</tr>
<tr>
<td>Batchrpt.rpt-name</td>
<td>X(8)</td>
<td>15</td>
</tr>
<tr>
<td>Frzcost.job</td>
<td>X(7)</td>
<td>30</td>
</tr>
<tr>
<td>Field Name</td>
<td>Length</td>
<td>Recursive Code</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------</td>
<td>----------------</td>
</tr>
<tr>
<td>Lasttran.trans-file</td>
<td>X(27)</td>
<td>30</td>
</tr>
<tr>
<td>Lictkn.rsvd3</td>
<td>X(8)</td>
<td>33</td>
</tr>
<tr>
<td>Msg-lib.msg-fmt</td>
<td>X(8)</td>
<td>300</td>
</tr>
<tr>
<td>Msg-lib.msg-id</td>
<td>X(8)</td>
<td>40</td>
</tr>
<tr>
<td>Msg-lib.msg-syntax</td>
<td>X(30)</td>
<td>200</td>
</tr>
<tr>
<td>p-funct.trn-funct</td>
<td>X(30)</td>
<td>32</td>
</tr>
<tr>
<td>Rf-xref.rf-class</td>
<td>X(8)</td>
<td>30</td>
</tr>
<tr>
<td>Rf-xref.description</td>
<td>X(8)</td>
<td>100</td>
</tr>
<tr>
<td>Rpt-opt.options</td>
<td>X(78)</td>
<td>400</td>
</tr>
<tr>
<td>Rpt-opt.rpt-name</td>
<td>X(8)</td>
<td>15</td>
</tr>
<tr>
<td>Sys-code.loc-code</td>
<td>X(8)</td>
<td>20</td>
</tr>
<tr>
<td>Sys-code.loc-desc</td>
<td>X(8)</td>
<td>60</td>
</tr>
<tr>
<td>Sys-code.reserved1</td>
<td>X(8)</td>
<td>12</td>
</tr>
<tr>
<td>Sys-code.sym-code</td>
<td>X(10)</td>
<td>20</td>
</tr>
<tr>
<td>Sys-fld.table-name</td>
<td>X(20)</td>
<td>32</td>
</tr>
<tr>
<td>Sys-menu.req-module</td>
<td>X(12)</td>
<td>18</td>
</tr>
<tr>
<td>Tmp-ser.ref-str</td>
<td>X(25)</td>
<td>30</td>
</tr>
<tr>
<td>User-browse.column-list</td>
<td>X(40)</td>
<td>150</td>
</tr>
<tr>
<td>Usrprint.rpt-name</td>
<td>X(8)</td>
<td>15</td>
</tr>
</tbody>
</table>

5. Use the output to decide whether to:
   - Correct the fields before unloading and save the extraneous data for later use, or
   - Correct the fields before unloading and automatically truncate the fields during conversion (if the extraneous data is not needed), or
   - Modify the target database structure and conversion scripts to accept longer values, or
   - A combination of the above methods, per table.
Start the Database Migration

Select **Start>Programs>Infor>Tools>Infor ERP SL Database Migration** on a computer that has access to the data paths and can connect to the SQL Server where the target databases reside. The following screen appears:

![SyteLine Database Migration](image)

When the SyteLine Database Migration screen appears, the Extract tab is selected.

1. **SyteLine Path** - The path to the SyteLine folder defaults here.
2. **Multi-Byte** - Select Multi-Byte if your source database uses a multi-byte code-page.
3. **Schema Level** - Choose the schema level of the source database.
4. Click **Extract**.

(Optional) Run the Numeric Overstuffing Program

Run the numeric overstuffing program (`<InstallDir>\ApplicationDB\Upgrade Scripts\Pro2SQL\ValPrec.p`) in the source database to detect all out-of-range numeric field values.

1. Log in to SyteLine.
2. Launch the Progress Query Editor.
3. Enter the following line:
   ```
   RUN "<SyteLineInstallDir>\ApplicationDB\Upgrade Scripts\Pro2SQL\ValPrec.p"
   ```
   The double-quotes in the example above are necessary due to spaces in the path. ValPrec.p automatically adjusts the PROPATH to find its sub-procedures.
4. Press the F2 key.
5. Use the output to decide whether to:
   - Set the fields to valid values before unloading, or
   - Delete the records containing invalid values (if the data is old or not needed).
(Optional) Run the Foreign-Key Validation Program

Run the foreign-key validation program (<InstallDir>\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\ValFK.p) in the source database to detect all invalid links between records.

1. Log in to SyteLine.
2. Launch the Progress Query Editor.
3. Enter the following line:
   ```sql
   RUN "<InstallDir>\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\ValFK.p"
   ```
   The double-quotes in the example above are necessary due to spaces in the path. ValFK.p automatically adjusts the PROPATH to find its sub-procedures.
4. Press the F2 key.
5. Use the output to decide whether to:
   - Set the fields to valid values before unloading, or
   - Set the fields to the unknown value before unloading, or
   - Create missing master table records to make the links valid, or
   - Delete the records containing invalid values (if the data is old or not needed).

   NOTE: Phase 4 of the conversion can not be completed until all links are valid.

(Optional) Run the Null Validation Program

Run the Null validation program (<InstallDir>\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\ValNull.p) in the source database to detect all invalid (Blank) or (Unknown) field values.

1. Log in to SyteLine.
2. Launch the Progress Query Editor.
3. Enter the following line:
   ```sql
   RUN "<InstallDir>\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\ValNull.p"
   ```
   The double-quotes in the example above are necessary due to spaces in the path. ValNull.p automatically adjusts the PROPATH to find its sub-procedure.
4. Press the F2 key.
5. Use the output to decide whether to:
   - Set the fields to valid values before unloading, or
   - Delete the records containing invalid values (if the data is old or not needed).

(Optional) Run the Check-Constraint Program

Run the Check-Constraint program (<InstallDir>\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\ValCk.p) in the source database to detect all remaining invalid field values.

1. Log in to SyteLine.
2. Launch the Progress Query Editor.
3. Enter the following line:
   \texttt{RUN "<InstallDir>\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\ValCk.p"}

   The double-quotes in the example above are necessary due to spaces in the path. ValCk.p automatically adjusts the PROPATH to find its sub-procedure.

4. Press the F2 key.

5. Use the output to decide whether to:
   - Set the fields to valid values before unloading, or
   - Delete the records containing invalid values (if the data is old or not needed).

(Optional) Run the Out-Of-Range Date-Validation Program

Run the out-of-range date-validation program (<InstallDir>\ApplicationDB\Upgrade Scripts\Pro2SQL\olddate.p) in the source database to detect all out-of-range date field values.

1. Log in to SyteLine.
2. Launch the Progress Query Editor.
3. Enter the following line
   \texttt{RUN "<SyteLineInstallDir>\ApplicationDB\Upgrade Scripts\Pro2SQL\olddate.p"}

   The double-quotes in the example above are necessary due to spaces in the path.

4. Use the output to decide whether to:
   - Set the fields to valid values before unloading, or
   - Delete the records containing invalid values (if the data is old or not needed).

Log Out of Infor ERP SyteLine on All Clients

Make sure everyone is out of the system.

Shut Down Servers

Shut down your servers.

Backup Databases

Backup all databases.
Unload Data from the Database To Be Converted

**NOTE:** Do not unload the databases from within an Infor ERP SyteLine session.

Do not unload the databases by using Progress utilities.

The only supported unload for the Infor ERP SyteLine conversion is from the Administration Menu utility.

**NOTE:** This step involves two options. Read the entire step before proceeding. You only need to run DumpUTF8.p if your database uses a Multi-Byte code-page.

**Option 1** - This process unloads your database into ASCII text files that are read into your new database.

On your existing system, perform the following steps to unload your database(s):

A. Select **Admin/Run SyteLine** from the Administration screen.

B. Select **Load/Unload** then **No Integrity** or **Full Integrity**. We suggest Full Integrity.

   If your system is multi-division, you can unload a Global database only by connecting to one of the Division databases.

C. Select the parameter file of the database to be unloaded.

D. Login to the database as user **symix**.

E. Select **Unload Database Files**. The databases referenced by the parameter file are listed. The Main database is highlighted as the default. The first time through, select the Main database. (You might return to this step later.)

F. The list of all available files appears. Press **Enter** to select **ALL**. An asterisk is placed to the left of the word **ALL**. Press the **F1** key.

G. When asked for a data path, enter the directory where the unloaded data (.d files) will be placed. Make sure that you have adequate space in the directory and that you have permission to write to the directory.

**NOTE:** If a Scheduling or Audit-Trail database is referenced in the parameter file, repeat steps E-F. A Scheduling database or Audit-trail database should be unloaded to the same directory as its Main database, but only after the Main database has been unloaded.

**NOTE:** The License Manager database does not need to be unloaded.

H. If your system is multi-division, repeat steps E, F, and G for each of the divisions and the Global database:

   - Each division, including its Main, Scheduling, and Audit-trail databases, should be unloaded to a separate directory. A Scheduling database or Audit-trail database should be unloaded to the same directory as its Main database, but only after the Main database has been unloaded.
If another division is referenced by the parameter file of the database being unloaded, it appears in the list of databases in Step F.

The Global database should also be unloaded to a separate directory.

**Option 2** - If your database uses a Multi-Byte code-page, run the UTF8 unload program (<InstallDir>\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\DumpUTF8.p) instead.

1. Log in to SyteLine.
2. Launch the Progress Query Editor.
3. Enter the following line:
   ```plaintext
   RUN "<InstallDir>\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\DumpUTF8.p"
   ```
   The double-quotes in the example above are necessary due to spaces in the path. DumpUTF8.p automatically adjusts the PROPATH to find its sub-procedures.

**NOTE:** For SyteLine 6.01 or later databases utilizing a Single-Byte code-page, run the bcp unload program (<InstallDir>\ApplicationDB\Upgrade Scripts\Pro2SQL\Dump4bcp.p) also.

1. Log in to SyteLine.
2. Launch the Progress Query Editor.
3. Enter the following line:
   ```plaintext
   RUN "<InstallDir>\ApplicationDB\Upgrade Scripts\Pro2SQL\Dump4bcp.p"
   ```
   The double-quotes in the example above are necessary due to spaces in the path. Dump4bcp.p automatically adjusts the PROPATH to find its sub-procedures.

4. Press the F2 key.
5. Write the output (*.d7b) to the Prepared Data Path, or copy it there before running Phase 2. Remember to select Fast-Load Large Tables for Phases 2 and 3. The table(s) unloaded in this manner can be excluded from the normal unload performed using the SyteLine Database Utilities, to save time.

If you have multi-database structures (for example, a separate scheduling database), unload all the component databases into the same data path used for the main database.
Run uet-dump.p. (Only if User Extended Tables are Used)

If User Extended Tables (UETs) are used and the data is to be carried forward to Infor ERP SyteLine, run the program uet-dump.p to unload the UET schema definitions to a flat file named zUETStruct.d7.

**NOTE:** You must have access to the Progress database on the conversion computer to be able to run uet-dump.p. If the conversion computer does not have access to the Progress database, copy uet-dump.p to a computer that does, run it there, and then copy the flat file back to the conversion computer.

1. Log in to SyteLine.
2. Launch the Progress Query Editor.
3. Enter the following line:
   ```plaintext
   RUN "<InstallDir>\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\uet-dump.p"
   ``
   The double-quotes in the example above are necessary due to spaces in the path. Write the output file (zUETStruct.d7) to the Prepared Data Path, or copy it there before running Phase 7.
4. Press the F2 key.

Create a Report of User-Defined Field Usage (Optional)

To create a report of User-Defined Fields usage, run userflds.p in the source database to create userflds.txt.

1. Log in to SyteLine.
2. Launch the Progress Query Editor.
3. Enter the following line:
   ```plaintext
   RUN "<InstallDir>\ApplicationDB\Upgrade Scripts\Pro2SQL\userflds.p"
   ``
   The double-quotes in the example above are necessary due to spaces in the path. This information can be used after conversion to setup the same User-Defined Fields in appropriate Infor ERP SyteLine Forms.
4. Press the F2 key.
Create an Infor ERP SyteLine Empty Application Database for Each Site

Use the Infor ERP SL Configuration Wizard to create an Infor ERP SyteLine empty application database for each site. See Chapter 1, “Setting Up the Database Server” for information on how to use the Infor ERP SyteLine Configuration Wizard.

Select the Phases to Run on the Phases Tab

1. On the SyteLine Database Migration screen, select the Phases Tab.
2. Select the phases you need to run (we recommend that while testing you run each phase separately and clean up any errors before you continue with the next phase; once you’re ready to do the final migration, you can select all desired phases and run it); all phases may not be necessary for your company. See immediately below for specific information about each phase, and make sure you understand each one before you run the conversion. After you select the phases, there are still some things to do on other tabs before you click the Run Migration button. Once you have completed all the preparatory tasks, you can click the Run Migration button, but you won’t do that within this step.

Phases

NOTE: Each phase should be completed before beginning the next phase, with the exception of phase 8, which can be completed anywhere after phase 1 but before phase 9.

Since the schema is stringent with respect to the format of data and cross-references, the entire process usually cannot be run unattended through all phases until a trial conversion has proven that any data inconsistencies have been addressed. We recommend therefore that you run one phase at a time during a trial conversion period.
The types of data problems are outlined in the section titled “Troubleshooting” on page 168.

Conversion occurs in the following 9 phases:

3. **Prepare Data Files** - Each Progress EXPORT-format flat-file (*.d) is read line-by-line, converted to a SQL-loadable format, and written out to a new flat-file (*.d7).

4. **Load Data Files** - Each SQL-loadable flat-file (*.d7) is loaded into a corresponding table in a SQL Conversion database.

5. **Convert Data** - Tables in the SyteLine Application database with known SyteLine 6 roots are populated from appropriate columns in rows in the appropriate table(s) in the migration database. Transformations are carried out for date and logical data-types, and Progress (Unknown) or (Blank) vs. SQL NULL values. Conversions are carried out for table splits and merges. New columns are populated from defaults or from other columns.

After you’ve converted the data, click the **Compare Converted Record Counts** button on the Options tab. This action compares the record-counts of the tables in the selected range between the Conversion and Application Databases, and reports those which are different. Use this to verify that no tables were inadvertently skipped.

6. **Apply Foreign-Key Constraints** - SQL constraints are loaded to ensure the existence of a record on the lookup end of most foreign-key references.

7. **Final Conversion** - Other conversions are carried out that require all tables to be populated. After Phase 5 is complete, the Application database is ready for login and licensing. You may now modify the data in the UET forms (e.g., remove the "pref-type" class), then logout and continue with Impact Schema. This is a way to purge unwanted extensions, as only the columns present in both the migration database and Application database are converted in Phase 8.

8. **Initialize APS** - APS tables are initialized from Work Center and Bill of Material and Job Routing data.


10. **Load UET Data Files** - Each SQL-loadable UET flat-file (x*.d7) is loaded into a corresponding table in the migration database.

11. **Convert UET Data** - Table extensions are copied from the migration database to the appropriate records in the Application database.
Make Selections on the Source Tab

1. **Schema Level** - Choose the Schema Level of the source database. This is the highest level in the drop-down that is before or equal to the version of SyteLine last run against the database from which the data was unloaded.

2. **Multi-Byte** - Select Multi-Byte if the source database uses a Multi-Byte code-page. Phase 1 looks for .d7w files created by DumpUTF8.p and translate them to .d7u files. Phase 2 looks for .d7u files. All data is translated to Unicode during conversion, regardless of the Multi-Byte setting.

3. **Multi-Site** - Do not select Multi-Site. This is selected when the source database is already a member of a multi-site structure.

4. **Multi-Currency** - Select Multi-Currency if the source database had Multi-Currency enabled. Otherwise clear this option and enter a new currency code on the Destination tab.

5. **Data Path** - Enter the Data Path to which the source database was unloaded.

6. **Prepared Data Path** - Enter a new directory into Prepared Data Path, where prepared data files will be stored during conversion. This drive requires available space approaching the total size of the unloaded files located in the Data Path.
Make Selections on the Destination Tab

1. **SQL Server** - Enter the name of the SQL Server on which all databases will reside.
2. **sa Password** - Enter the password for the System Administration user 'sa' on the SQL Server.
3. **Migration Database** - Enter the name of an intermediate migration database to be used during conversion, then click the Create button. Its structure is built during phase 2.
4. **Refresh Database Lists** - Click the Refresh Database Lists button to populate the Application Database drop-down list.
5. **Application Database** - Select the Application Database created in Step 2.
6. **Site** - Enter the Site identifier for all records in the target database. This value may not be left blank, and you cannot change the value during or after the conversion.
7. **Currency** - If Multi-Currency was not enabled in the source database, enter a Currency code for all records in the target database. This value may not be left blank, and you cannot change the value during or after the conversion.
Make Selections on the Options tab

1. **Logfile Path** - Enter a Logfile Path where logfiles will be written. The default is the Working Directory of the conversion program.

2. **Starting and Ending Table** - (Optional) Enter Starting and Ending Table to limit processing to a specific range of data. This is a strict range and does not accept wildcards. It can be used to parallel-process portions of certain phases on different computers connected to one SQL Server (ensuring that each phase is completed on all computers before beginning the next phase), or to resume conversion or re-convert individual tables after correcting errors in the source data. For Phase 1, use extensionless .d names. For Phase 2, use SyteLine 6 table names (with hyphens). For Phases 3-4, 7, and 8, use Infor ERP SyteLine table names (with underscores instead of hyphens). For User Extended Tables, specify the extensionless .d name in Phase 1 and the corresponding SyteLine table in other Phases according to the guidelines in the preceding sentence.

When using ranges, note that hyphen sorts lower than (i.e., comes before) “a”, and underscore sorts higher than (i.e., comes after) “z”. A simple method for starting at the first table after “table” is to specify Starting Table as “table-” (the name of the table followed by a hyphen). This excludes “table” itself but processes any table having a prefix identical to “table” followed by any letter, hyphen, or underscore. A simple method for ending at the last table before “table” is to specify Ending Table as “tabl_d_zz” (the name of the table with its last character replaced by the preceding letter or digit followed by underscore and 2 “z”s). Again this excludes “table” itself but processes any table having a prefix near to “table” followed by any letter, hyphen, or underscore and any other letters (because no SyteLine tables contain 2 adjacent underscores). Using these methods, it is not necessary to know the entire list of tables or at which specific table the process is to be started or ended.
Refer to the tables below as examples:

### In Phase 1

<table>
<thead>
<tr>
<th>To process</th>
<th>Specify</th>
</tr>
</thead>
</table>
| memo-top.d → memo-
    top.d7           | memo-top         |
| prd-item.d → prd-
    item.d7          | prd-item         |
| item.d → item.d7   | item             |
| xitem.d → xitem.d7 | xitem            |

### In Phase 2

<table>
<thead>
<tr>
<th>To process</th>
<th>Specify</th>
</tr>
</thead>
<tbody>
<tr>
<td>memo-top.d7 → [memo-topic]</td>
<td>memo-topic</td>
</tr>
<tr>
<td>prd-item.d7 → [prod-mix-item]</td>
<td>prod-mix-item</td>
</tr>
<tr>
<td>item.d7 → [item]</td>
<td>item</td>
</tr>
<tr>
<td>xitem.d7 → [ux-item]</td>
<td>item</td>
</tr>
</tbody>
</table>

### In other Phases

<table>
<thead>
<tr>
<th>To process</th>
<th>Specify</th>
</tr>
</thead>
<tbody>
<tr>
<td>[memo-topic] → memo_topic</td>
<td>memo_topic</td>
</tr>
<tr>
<td>[prod-mix-item] → prod_mix_item</td>
<td>prod_mix_item</td>
</tr>
<tr>
<td>[item] → item</td>
<td>item</td>
</tr>
<tr>
<td>[ux-item] → item</td>
<td>item</td>
</tr>
</tbody>
</table>

3. **Performance** - On multi-processor computers, use the fields in this section to distribute Phase 3 processing among the CPUs.

- **Multi-Thread Tables Larger than N Rows** - Check this field and then enter the number of rows a table must have before multi-thread begins.

- **Threads** - Enter the desired number of simultaneous threads (2-9). A single thread is used for tables having less than or equal to the number of rows designated in the **Multi-Thread Tables Larger than N Rows** field above.
4. **Fast-Load Large Tables** - If Dump4bcp.p was used to unload large tables from the Progress database, this field can be set to load directly from the resulting *.d7b files into the application database during Phase 2 (bypassing the migration database and eliminating or significantly reducing the Phase 3 processing for these tables). Notes attached to these records are loaded during Phase 3. Initial tables supported by Dump4bcp.p are: ledger & matltran (and its sub-table matltran_amt) for SyteLine 6.01 or later source databases.

5. **Replace deleted user names in auditing tables with** - Earlier versions of SyteLine allowed deletion of a User record even after some auditing records had been created by that user. This is not allowed in Infor ERP SyteLine. Select this option and enter a user name to replace the deleted users’ names. You may enter an existing user name from the database being migrated, a new user automatically added for Infor ERP SyteLine (e.g. "sa"), or an entirely new name in which case a new user record will be created. Clear this option to convert the deleted usernames as NULLs. This will cause validation errors on some tables, listed below:

<table>
<thead>
<tr>
<th>Table</th>
<th>NULL Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adp_parm</td>
<td>Yes</td>
</tr>
<tr>
<td>Cad_parm</td>
<td>Yes</td>
</tr>
<tr>
<td>Ctc_log</td>
<td>Yes</td>
</tr>
<tr>
<td>Inv_ms_log</td>
<td>Yes</td>
</tr>
<tr>
<td>Jobt_mat</td>
<td>Yes</td>
</tr>
<tr>
<td>Poblnchg</td>
<td>No</td>
</tr>
<tr>
<td>Pochange</td>
<td>No</td>
</tr>
<tr>
<td>Pochg</td>
<td>No</td>
</tr>
<tr>
<td>Poltmchg</td>
<td>No</td>
</tr>
<tr>
<td>Proj_ship</td>
<td>Yes</td>
</tr>
<tr>
<td>Proj_wip</td>
<td>No</td>
</tr>
<tr>
<td>Rev_ms_log</td>
<td>No</td>
</tr>
</tbody>
</table>

6. **Stop at First Error** - Select Stop at First Error to stop the conversion upon first detection of any error or data anomaly. Clear this option to continue processing the next table(s) and/or Phase(s). In either case, detected errors are logged to the Status tab and written to a logfile.

7. **Maximum Errors for bcp** - Phase 2 uses the bcp (Bulk Copy) utility to import data from flat-files. Bcp performs minimal validation as rows are imported, including checking for proper data-types and lengths. If the number of rows with that fail validation is below a threshold, bcp imports the remaining rows and reports the errors encountered; otherwise bcp imports nothing. Enter the number of data errors for bcp to detect before aborting the import for each table. Use this option if a table is failing validation to help determine which rows contain errors. Increase the value until the remaining rows are imported, then determine which rows are missing from the Migration database.
8. **Locator Mode; Starting Row** - If Phase 3 fails due to a data validation problem, use this option to locate the invalid row and display its converted column values that might be too long or out of range. If this is successful, subsequent errors can be located by setting the Starting Row to the next row and trying again.

9. **Substitute for Leading Spaces** - Enter a single character to Substitute for Leading Spaces in non-formatted character fields. Leading spaces are not allowed in Infor ERP SyteLine, except in alpha-keys (for example, CO number, PO number), and in account numbers when the account format is numeric with leading zeroes suppressed (for example, "ZZZZZ"). To maintain sorting as in the source database, enter a character that sorts before the first character of the lowest-sorting non-space-led field in any field in any table containing leading spaces (exclamation, double-quote, #, $, %, &, single-quote, (,), *, +, comma, -, period, slash; and unless digits are used to start fields, also any digit, colon, semi-colon, <, =, >, question-mark, or @).

10. **Truncate Destination Table Before Converting** - Use this option during Phases 3 and/or 9 to remove all rows from the destination table(s) before converting rows from the Migration database. This is useful in case a previous run failed and left a partial set of rows remaining.

11. **Truncate Overstuffed Character Fields** - Select Truncate Overstuffed Character Fields to automatically truncate all character fields with values in the source database set longer than the display format. The extraneous data remains in the migration database, but no warning is shown. Clear this option to abort loading the entire table when this condition is detected. This allows anomalies to be found without running overstuff.p.

**Click the Run Migration Button**

Click the Run Migration button to start processing. The Status tab shows the progress. An alert-box and bell signal completion. At completion, the progress is appended to a file "convert.log" in the Logfile Path.

**Click Run Migration Button for Additional Phases or Table Ranges**

Repeat the above steps for additional phases or table ranges, and click the Run Migration button when ready. After Phase 3 is complete, click the Compare Converted Record Counts button on the Options tab to display any tables with mismatched record-counts between the Conversion and Application database. This is helpful to catch any tables that were neglected if incorrect table ranges were used.

Do not run the final conversion phase until all prior phases have completed.

**Perform Post Conversion Tasks**

After conversion is complete, perform the "Post-Conversion Tasks below.

Following the Post Conversion Tasks, the rest of this chapter is reference material and troubleshooting tips.
Post-Conversion Tasks

The following tasks are required after conversion to prepare the application database for use with Infor ERP SyteLine:

1. Open the License Management form and enter your license key. See the *Infor ERP SyteLine System Administration Guide* for information about the License Management form and how to apply your license.

2. Enter password for all user records. Because passwords are stored in an encrypted format, they cannot be brought forward from the source database.

3. Set up form-based, user-, and group-level security. See the *Infor ERP SyteLine System Administration Guide* or the online help for more information on how to set up user authorizations.

4. Unhide and appropriately label any desired User-Defined Fields on Forms’ User-Defined tabs.

Outputs

<table>
<thead>
<tr>
<th>Name</th>
<th>Phase</th>
<th>Directory</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convert.log</td>
<td>All</td>
<td>Logfile Path</td>
<td>Contents of the Status tab</td>
</tr>
<tr>
<td>Load.log</td>
<td>2</td>
<td>Prepared Data Path</td>
<td>Number of records loaded per table; format is comparable to &quot;un-load.log&quot; from the Database Unload utility.</td>
</tr>
<tr>
<td>Load2.log</td>
<td>3</td>
<td>Logfile Path</td>
<td>Number of records converted per table</td>
</tr>
<tr>
<td>Crewsize.log</td>
<td>Final</td>
<td>Logfile Path</td>
<td>List of records whose non-integral Crew Size was altered</td>
</tr>
</tbody>
</table>

Disk Usage

Plan for the following space requirements:

<table>
<thead>
<tr>
<th>Data Store</th>
<th>Estimated Size</th>
<th>Needed Through</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source database (Progress)</td>
<td>X</td>
<td>Database Utilities Unload (pre Conversion)</td>
</tr>
<tr>
<td>Unloaded data files (*.d)</td>
<td>80% of X</td>
<td>Conversion Phase 1 (Prepare Data Files)</td>
</tr>
<tr>
<td>Prepared data files (*.d7)</td>
<td>55% of X</td>
<td>Conversion Phase 2 (Load Data Files)</td>
</tr>
<tr>
<td>Conversion database (SQL)</td>
<td>150% of X</td>
<td>Final Conversion (OK to Shrink after Phase 2)</td>
</tr>
<tr>
<td>Application database transaction log (SQL)</td>
<td>35% of X</td>
<td>Final Conversion (OK to Shrink after Final Conversion)</td>
</tr>
<tr>
<td>Application database data files (SQL)</td>
<td>350% of X</td>
<td>--</td>
</tr>
</tbody>
</table>
Troubleshooting

Following are some common errors that might occur during conversion, with suggested remedies:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Error</th>
<th>Where</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>String data, right truncation</td>
<td>&lt;Prepared Data Path&gt;\ &lt;dump-name.err&gt;</td>
<td>Run overstuff.p in the source database to find overstuffed fields. Correct these in the source database and unload again, or modify the &lt;VerId&gt;/*.tbl file to allow for more data, and use the Truncate option.</td>
</tr>
<tr>
<td>3</td>
<td>Cannot insert the value NULL into column 'xxx', table 'zzz.dbo.yyy'; column does not allow nulls. INSERT fails.</td>
<td>Convert.log</td>
<td>Run ValNull.p in the source database to find invalid (Blank) and (Unknown) fields. Correct these in the source database and unload again, or Use SELECT statements in the Conversion database to find offending records. Correct or delete these and re-run Phase 3 for this table.</td>
</tr>
<tr>
<td>3</td>
<td>INSERT statement conflicted with COLUMN CHECK constraint 'CK_yyy_xxx'. The conflict occurred in database 'zzz', table 'yyy', column 'xxx'.</td>
<td>Convert.log</td>
<td>Use SELECT statements in the Conversion database to find offending records. Correct or delete these and re-run Phase 3 for this table.</td>
</tr>
<tr>
<td>4</td>
<td>ALTER TABLE statement conflicted with COLUMN FOREIGN KEY constraint 'kkk'. The conflict occurred in database 'zzz', table 'yyy', column 'xxx'.</td>
<td>Convert.log</td>
<td>Run ValFK.p in the source database to find invalid foreign-key references. Correct these in the source database and unload again, or Use SELECT statements in the Application database to find offending records. Correct or delete these and re-run Phase 4 for this table. See Resolving Foreign-Key Conflicts.</td>
</tr>
</tbody>
</table>

Resolving Foreign-Key Conflicts

A Foreign-Key Relationship is a reference in one record to the primary-keys of another record. For example, most G/L Account columns must either be Null or refer to an existing record in the Chart of Accounts table. The Infor ERP SyteLine Application database utilizes SQL Foreign-Key Constraints to enforce these relationships, thus ensuring referential integrity between tables.
If a reference is incorrect in the source database, a Foreign-Key Conflict is raised during Phase 4. All such conflicts must be resolved before the database is ready for use with Infor ERP SyteLine.

Following is an example of resolving a Foreign-Key Conflict.

The SQL error message for this example is:

```sql
*** Error occurred during Apply coh.key to SyteLine_App
ALTER TABLE statement conflicted with TABLE FOREIGN KEY constraint 'cohFk1'. The conflict occurred in database 'SyteLine_App', table 'customer'.
```

The above message has the following information:

- The record containing the incorrect reference is located in the "coh" table (foreign-key table).
- The reference is intended to identify a record in the "customer" table (primary-key table).
- The name of the foreign-key relationship is "cohFk1" (constraint name).
- The relationship is described in the file `<InstallDir>\SyteLine\ApplicationDB\Foreign Keys\coh.key`.

If the relationship is based on a single key column, its name is also given. This information is also listed in the .key file.

To resolve the conflict, do the following:

5. Determine which columns in the foreign-key table "coh" are meant to refer to which columns in the primary-key table "customer." These are listed in the .key file under the name of the relationship as in the example below:

```sql
ADD CONSTRAINT cohFk1
FOREIGN KEY (cust_num, cust_seq)
REFERENCES customer (cust_num, cust_seq)
```

6. Build a T-SQL statement in the Query Analyzer to find incorrect references as in the example below:

```sql
SELECT co_num, cust_num, cust_seq
FROM coh
WHERE cust_num IS NOT NULL
AND NOT EXISTS (SELECT 1 FROM customer
    WHERE customer.cust_num = coh.cust_num
```
AND customer.cust_seq = coh.cust_seq)

The above statement shows (SELECT) the key column(s) (co_num) and incorrect references (cust_num, cust_seq) from every record in the foreign-key table (coh) whose foreign-keys (coh.cust_num, coh.cust_seq) seemingly refer to a record (NOT NULL) but do not identify (NOT EXISTS) a record in the primary-key table (customer).

A grid is displayed that lists the selected columns for each record with an incorrect reference. You now decide how to address each incorrect reference. Choose from among the following 3 options:

- Change the foreign-key columns to refer to an existing primary-key record.
  
  For example:
  
  ```sql
  UPDATE coh SET cust_seq = 4 WHERE coh.co_num = 'S000215869'
  ```
  
- Add a new primary-key record with primary-keys to match the foreign-keys (not recommended at this point in the process, because SyteLine triggers are disabled and will not provide their normal validation or cascading actions); or

- Change the foreign-key columns to Null.
  
  For example, to affect all incorrect records:
  
  ```sql
  UPDATE coh SET cust_num = NULL, cust_seq = NULL
  FROM coh
  WHERE cust_num IS NOT NULL
  AND NOT EXISTS(SELECT 1 FROM customer
                 WHERE customer.cust_num = coh.cust_num
                 AND customer.cust_seq = coh.cust_seq)
  ```

All references are correct for this constraint when the SELECT statement above displays an empty grid.

After all references are correct for all constraints in a .key file, phase 4 can be re-run for the foreign-key table (enter the table name "coh" in both the Starting Table and Ending Table fields).
Relative Duration

The following table approximates the relative successful completion times of each phase:

<table>
<thead>
<tr>
<th>Phase</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>65</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

Results may vary and can differ greatly when parallel processes are used.

Re-entrance

Phases 1-4, 6, and 8 can be re-executed for individual tables or ranges if data inconsistencies are detected and corrected. The following table provides details:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Preparation Required Before Re-execution</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>None</td>
<td>.d7 file will be overwritten by default</td>
</tr>
<tr>
<td>2</td>
<td>None</td>
<td>Table in Conversion database is dropped and re-created by default</td>
</tr>
<tr>
<td>3</td>
<td>Truncate table in Application database</td>
<td>Depending on the type of error received during previous execution, data may remain in the table; we do not truncate by default</td>
</tr>
<tr>
<td>4</td>
<td>None</td>
<td>Existing constraints are dropped for each table and re-created by default</td>
</tr>
<tr>
<td>6</td>
<td>None</td>
<td>Stored Procedure purges all data before recreating it.</td>
</tr>
<tr>
<td>8</td>
<td>None</td>
<td>Table in Conversion database is dropped and re-created by default</td>
</tr>
</tbody>
</table>

Parallel Execution

Phases 1-4 can be executed on multiple computers or multiple processes in parallel, to reduce total duration. This is especially useful on multi-processor systems.

1. Start multiple instances of SLConv.exe on 1 or more computers.
2. Enter a unique Logfile Path for each instance; all other options should be identical.
3. Use the Starting Table/Ending Table range option to split the load. Note your largest tables by size of .d and attempt to group these separately (for example, if largest tables are ledger and matltran, then use 4 ranges: a-l, l-m, m-n, n-z).

**NOTE:** Note: Range l-m does not process any tables beginning with "m", because "matlearn" (the first table beginning with "m") sorts higher than "m" in dictionary order. Another way to process the same range is l-l_zz.

When using parallel execution, follow these guidelines for minimum contention:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>Start first instance; wait until it has finished dropping foreign-keys and loaded user_local table; then start remaining instances.</td>
</tr>
<tr>
<td>4</td>
<td>None</td>
</tr>
</tbody>
</table>

Monitor system load to avoid performance degradation.
Converting From SyteLine 5 or SyteLine 6 (Multi-Site)

NOTE: If you are converting a single site database, see “Migrating From SyteLine 5 or SyteLine 6 (Single Site)” on page 149.

When converting from SyteLine 5 or 6 to Infor ERP SyteLine, we recommend that you work with your affiliate or professional services consultant. Conversions can be quite complex and time-consuming. You will obtain significant benefit by working with individuals experienced in this process. There are limits to what the Infor Support team can do to assist when conversion issues are encountered, due to the variability of the process between customer environments.

The steps in this chapter detail how to convert from SyteLine 5 or SyteLine 6 on Progress to SyteLine 8.01 on SQL. If you are running a version of SyteLine earlier than SyteLine 5, you need to upgrade to SyteLine 6 before converting to SyteLine 8.01 (you could upgrade to SyteLine 5 and convert from there, but we recommend that you upgrade to SyteLine 6 before converting to Infor ERP SyteLine 8.01).

The steps to upgrade from an earlier version of SyteLine to SyteLine 6 are found in the Getting Started manual for SyteLine 6. You can download this manual from Infor’s web site at http://www.infor365.com. Once there, perform the following steps:

1. Login.
2. Select SyteLine Menu from the drop-down menu at the top of the screen.
3. Click OK.
4. Click the link for Product documentation.
5. Follow the links to the Getting Started manual for SyteLine 6.

Requirements

NOTE: In the list of requirements below, there are some paths to programs referenced. These paths and programs will not exist until AFTER you extract the files in the first step of the conversion procedure. Use the list of requirements only as reference. Do not use this list as your step-by-step procedure. The procedure begins AFTER the list of requirements.

- You must have a working Infor ERP SyteLine 8.01 environment already installed and configured (database server and utility server minimum). See Chapter 1, “Setting Up the Database Server and Chapter 2, “Setting up the Utility Server for installation steps.”
Your computer must have access to the .d files to be unloaded from the source (Progress) database, and access to about the same amount of disk space again (to hold the prepared .d7 files).

If User Extended Tables (UETs) are used in the SyteLine 5 or SyteLine 6 database, access to the Progress database is required to run the program uet-dump.p to unload the UET schema definitions to a flat file (zUETStruct.d7). If the conversion computer does not have access to Progress, the program can be copied to another appropriate computer and the flat file copied back from there.

Infor ERP SyteLine 8.01 must be installed on this computer. The conversion programs are installed in the installation directory under "\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL". Scripts under "\SyteLine\ApplicationDB\Foreign Keys" (Phase 4) and "\SyteLine\ApplicationDB\Init Data\Empty db" and "\SyteLine\ApplicationDB\Messages" (Final Phase) are also used during the conversion process. See Chapter 1, “Setting Up the Database Server for installation instructions.

You must have installed the Infor ERP SyteLine Database Migration pieces. See Chapter 1, “Setting Up the Database Server for installation instructions.

Enough of SQL Server must be beinstalled in order to have the bcp utility on this computer SQL Server installation automatically adds the appropriate directory to the system Path.

On the Server Settings Tab of the SQL Server Properties dialog, two-digit year support must be set to match the Progress -yy setting. For example, If -yy 1930 is used in symixrun.pf and admin.pf, then set to “When a two-digit year is entered, interpret it as a year between: 1930 and 2029.” This setting can be adjusted as desired after conversion is complete.

When unloading data from the source SyteLine database(s), one of the following startup parameter combinations must be used:

- -d mdy
  OR
- -d ymd -yr4def

In addition, the following startup parameter may not be used, because its output is not recognizable by the implicit SQL conversion algorithm:

- -d dmy

These startup parameters can be used in the unloading session without affecting other logged in users, by utilizing a separate parameter-file. To verify the setting, inspect the trailer of an unloaded .d file for the “dateformat” setting; if -yr4def is used, also inspect any non-empty line in a .d for a table that contains a meaningful date field to verify that a 4-digit year is being output.

Microsoft Data Access Components (MDAC) 2.7 is required for proper operation, due to a bug in earlier versions. If you need the proper version of MDAC, download it from Microsoft’s site: http://www.microsoft.com.

Post all unposted A/R Payments, A/R Invoices, and Debit and Credit Memos prior to the conversion.

Stop the Infor Framework IDO Runtime Service on the utility server until after migration is completed.
Conversion Steps (Multi-Site)

Use the following procedure to convert your multi-site database to SyteLine 8.01. We recommend that you read the entire chapter before you begin. The procedure is divided up into several sections, and each section contains a series of steps. Following the "Post-Conversion Tasks" on page 202, the rest of this chapter contains reference material and troubleshooting tips.

(Optional) Run the String Overstuffing Detection Program

Run the overstuffing detection program (\InforInstallDir\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\overstuff.p) in each site and entity database.

1. Log in to SyteLine.
2. Launch the Progress Query Editor.
3. Enter the following line in the Progress Query Editor:
   
   \texttt{RUN "\InforInstallDir\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\overstuff.p"}

   The quotes in the example above are necessary due to spaces in the path.
4. Press the F2 key.

   \textbf{NOTE:} Certain fields deliberately overstuffed by Infor ERP SyteLine standard code are accepted as-is into the target database, and others shown below are accepted as-is into the migration database (if Load Obsolete Data is checked) but are obsolete.

<table>
<thead>
<tr>
<th>Table.Field</th>
<th>Display Format</th>
<th>Data Allowed into Migration Database</th>
</tr>
</thead>
<tbody>
<tr>
<td>*-audit.audit-prog</td>
<td>X(20)</td>
<td>50</td>
</tr>
<tr>
<td>Batchrpt.rpt-name</td>
<td>X(8)</td>
<td>15</td>
</tr>
<tr>
<td>Frzcost.job</td>
<td>X(7)</td>
<td>30</td>
</tr>
<tr>
<td>Lasttran.trans-file</td>
<td>X(27)</td>
<td>30</td>
</tr>
<tr>
<td>Lictkn.rsvd3</td>
<td>X(8)</td>
<td>33</td>
</tr>
<tr>
<td>Msg-lib.msg-fmt</td>
<td>X(8)</td>
<td>300</td>
</tr>
<tr>
<td>Msg-lib.msg-id</td>
<td>X(8)</td>
<td>40</td>
</tr>
<tr>
<td>Msg-lib.msg-syntax</td>
<td>X(30)</td>
<td>200</td>
</tr>
<tr>
<td>p-funct.trn-funct</td>
<td>X(30)</td>
<td>32</td>
</tr>
<tr>
<td>Rf-xref.rf-class</td>
<td>X(8)</td>
<td>30</td>
</tr>
<tr>
<td>Rf-xref.description</td>
<td>X(8)</td>
<td>100</td>
</tr>
<tr>
<td>Rpt-opt.options</td>
<td>X(78)</td>
<td>400</td>
</tr>
</tbody>
</table>
5. Use the output to decide whether to:
   - Correct the fields before unloading and save the extraneous data for later use, or
   - Correct the fields before unloading and automatically truncate the fields during conversion (if the extraneous data is not needed), or
   - Modify the target database structure and conversion scripts to accept longer values, or
   - A combination of the above methods, per table.

Start the Database Migration

Select **Start>Programs>Infor>Tools>Infor ERP SL Database Migration** on a computer that has access to the data paths and can connect to the SQL Server where the target databases reside. The following screen appears:
When the SyteLine Database Migration screen appears, the Extract tab is selected.

1. **SyteLine Path** - The path to the SyteLine folder defaults here.
2. **Multi-Byte** - Select Multi-Byte if your source database uses a multi-byte code-page.
3. **Schema Level** - Choose the schema level of the source database.
4. Click **Extract**.

*(Optional) Run the Numeric Overstuffing Program*

Run the numeric overstuffing program (`<InstallDir>\ApplicationDB\Upgrade Scripts\Pro2SQL\ValPrec.p`) in the source database to detect all out-of-range numeric field values.

1. Log in to SyteLine.
2. Launch the Progress Query Editor.
3. Enter the following line:
   ```
   RUN "<SyteLineInstallDir>\ApplicationDB\Upgrade Scripts\Pro2SQL\ValPrec.p"
   ```
   The double-quotes in the example above are necessary due to spaces in the path. ValPrec.p automatically adjusts the PROPATH to find its sub-procedures.
4. Press the F2 key.
5. Use the output to decide whether to:
   - Set the fields to valid values before unloading, or
   - Delete the records containing invalid values (if the data is old or not needed).

*(Optional) Run the Foreign-Key Validation Program*

Run the foreign-key validation program (`<InforInstallDir>\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\ValFK.p`) in each site and entity database to detect all invalid links between records.

1. Log in to SyteLine.
2. Launch the Progress Query Editor.
3. Enter the following line:
   ```
   RUN "<InforInstallDir>\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\ValFK.p"
   ```
   The quotes in the example above are necessary due to spaces in the path. ValFK.p automatically adjusts the PROPATH to find its sub-procedures.
4. Press the F2 key.
5. Use the output to decide whether to:
   - Set the fields to valid values before unloading, or
   - Set the fields to the unknown value before unloading, or
   - Create missing master table records to make the links valid, or
   - Delete the records containing invalid values (if the data is old or not needed).

**NOTE:** Phase 4 of the conversion can not be completed until all links are valid.
(Optional) Run the Null Validation Program

Run the Null validation program (<InforInstallDir>\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\ValNull.p) in each site and entity database to detect all invalid (Blank) or (Unknown) field values.

1. Log in to SyteLine.
2. Launch the Progress Query Editor.
3. Enter the following line:
   
   RUN “<InforInstallDir>\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\ValNull.p”

   The quotes in the example above are necessary due to spaces in the path. ValNull.p automatically adjusts the PROPATH to find its sub-procedure.

4. Press the F2 key.
5. Use the output to decide whether to:
   - Set the fields to valid values before unloading, or
   - Delete the records containing invalid values (if the data is old or not needed).

(Optional) Run the Check-Constraint Program

Run the Check-Constraint program (<InstallDir>\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\ValCk.p) in the source database to detect all remaining invalid field values.

1. Log in to SyteLine.
2. Launch the Progress Query Editor.
3. Enter the following line:
   
   RUN “<InstallDir>\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\ValCk.p”

   The double-quotes in the example above are necessary due to spaces in the path. ValCk.p automatically adjusts the PROPATH to find its sub-procedure.

4. Press the F2 key.
5. Use the output to decide whether to:
   - Set the fields to valid values before unloading, or
   - Delete the records containing invalid values (if the data is old or not needed).

(Optional) Run the Out-Of-Range Date-Validation Program

Run the out-of-range date-validation program (<InstallDir>\ApplicationDB\Upgrade Scripts\Pro2SQL\olddate.p) in the source database to detect all out-of-range date field values.

1. Log in to SyteLine.
2. Launch the Progress Query Editor.
3. Enter the following line
   
   RUN "<SyteLineInstallDir>\ApplicationDB\Upgrade Scripts\Pro2SQL\olddate.p"

   The double-quotes in the example above are necessary due to spaces in the path.
4. Use the output to decide whether to:
   - Set the fields to valid values before unloading, or
   - Delete the records containing invalid values (if the data is old or not needed).

Log out of SyteLine on all clients
   Make sure everyone is out of the system.

Shut Down Servers
   Shut down your servers.

Backup Databases
   Backup all databases.

Unload Data from the Database To Be Converted

| NOTE: Do not unload the databases from within a SyteLine session. |
| Do not unload the databases by using Progress utilities. |
| The only supported unload for the SL7 conversion is from the SyteLine Administration Menu utility. |
| NOTE: This step involves two options. Read the entire step before proceeding. You only need to run DumpUTF8.p if your database uses a Multi-Byte code-page. |

Option 1 - This process unloads your database into ASCII text files that are read into your new database.

On your existing system, perform the following steps to unload your database(s):

A. Select Admin/Run SyteLine from the Administration screen.
B. Select Load/Unload then No Integrity or Full Integrity. We suggest Full Integrity.
   If your system is multi-division, you can unload a Global database only by connecting to one of the Division databases.
C. Select the parameter file of the database to be unloaded.
D. Login to the database as user symix.
E. Select Unload Database Files. The databases referenced by the parameter file are listed. The Main database is highlighted as the default. The first time through, select the Main database. (You might return to this step later.)
F. The list of all available files appears. Press Enter to select ALL. An asterisk is placed to the left of the word ALL. Press the F1 key.
G. When asked for a data path, enter the directory where the unloaded data (.d files) will be placed. Make sure that you have adequate space in the directory and that you have permission to write to the directory.

NOTE: If a Scheduling or Audit-Trail database is referenced in the parameter file, repeat steps E-F. A Scheduling database or Audit-trail database should be unloaded to the same directory as its Main database, but only after the Main database has been unloaded.

NOTE: The License Manager database does not need to be unloaded.

H. If your system is multi-division, repeat steps E, F, and G for each of the divisions and the Global database:
   - Each division, including its Main, Scheduling, and Audit-trail databases, should be unloaded to a separate directory. A Scheduling database or Audit-trail database should be unloaded to the same directory as its Main database, but only after the Main database has been unloaded.
   - If another division is referenced by the parameter file of the database being unloaded, it appears in the list of databases in Step F.
   - The Global database should also be unloaded to a separate directory.

Option 2 - If your database uses a Multi-Byte code-page, run the UTF8 unload program (<InforInstallDir>\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\DumpUTF8.p) instead.

1. Log in to SyteLine.
2. Launch the Progress Query Editor.
3. Enter the following line:
   
   ```
   RUN "<InforInstallDir>\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\DumpUTF8.p"
   ```

   The quotes in the example above are necessary due to spaces in the path. DumpUTF8.p automatically adjusts the PROPATH to find its sub-procedures.

If you have multi-database structures (for example, a separate scheduling database), unload all the component databases into the same data path used for the main database.

NOTE: Due to a constraint in the Database Utilities, if Shared Customer Master is enabled in any sites, you must login to one of those sites to unload the "custa-audit" table. Also, if Shared Vendor Master is enabled in any sites, you must login to one of those sites to unload the "venda-audit" table. In some circumstances, these tables are not available for selection when logged into an Entity database.
Run uet-dump.p. (Only if User Extended Tables are Used)

If User Extended Tables (UETs) are used and the data is to be carried forward to Infor ERP SyteLine, run the program uet-dump.p to unload the UET schema definitions to a flat file named zUETStruct.d7.

**NOTE:** You must have access to the Progress database on the conversion computer to be able to run uet-dump.p. If the conversion computer does not have access to the Progress database, copy uet-dump.p to a computer that does, run it there, and then copy the flat file back to the conversion computer.

1. Log in to SyteLine.
2. Launch the Progress Query Editor.
3. Enter the following line:
   ```
   RUN "<InforInstallDir>\SyteLine\ApplicationDB\Upgrade Scripts\Pro2SQL\uet-dump.p"
   ```

   The quotes in the example above are necessary due to spaces in the path. Write the output file (zUETStruct.d7) to the Prepared Data Path, or copy it there before running Phase 7.

4. Press the F2 key.

Create a Report of User-Defined Field Usage (Optional)

To create a report of User-Defined Fields usage, run userflds.p in the source database to create userflds.txt.

1. Log in to SyteLine.
2. Launch the Progress Query Editor.
3. Enter the following line:
   ```
   RUN "<InforInstallDir>\ApplicationDB\Upgrade Scripts\Pro2SQL\userflds.p"
   ```

   The quotes in the example above are necessary due to spaces in the path. This information can be used after conversion to setup the same User-Defined Fields in appropriate forms.

4. Press the F2 key.

Create an Infor ERP SyteLine Empty Application Database for Each Site

Use the Infor ERP SyteLine Configuration Wizard to create an empty application database for each site. See Chapter 1, “Setting Up the Database Server” for information on how to use the Infor ERP SL Configuration Wizard.
Load Data From Global Database

Make Selection on the Overview Tab

1. On the SyteLine Database Migration screen, click the **Overview** tab.
2. Select **Load 'symglbl' Data**.

Select the Phases to Run on the Phases Tab

1. Select the Phases tab.
2. Select the phases to run (either Phase 1 or Phase 2, or both). You can run phases 3-9 only after 1-2 have been run and after you clear the Load 'symglbl' Data field on the Overview tab.

There are nine phases on this tab, defined as the following:

- **Phase 1, Prepare Data Files** - Each Progress EXPORT-format flat-file (*.d) is read line-by-line, converted to a SQL-loadable format, and written out to a new flat-file (*.d7). Run this phase and phase 2 before the other phases.
- **Phase 2, Load Data Files** - Each SQL-loadable flat-file (*.d7) is loaded into a corresponding table in a SQL Conversion database. Run this phase and phase 1 before the other phases.
- **Phase 3, Convert Data** - Tables in the SyteLine Application database with known SyteLine 6 roots are populated from appropriate columns in rows in the appropriate table(s) in the migration database. Transformations are carried out for date and logical data-types, and Progress (Unknown) or (Blank) vs. SQL NULL values. Conversions are carried out for table splits and merges. New columns are populated from defaults or from other columns.
- **Phase 4, Apply Foreign-Key Constraints** - SQL Constraints are loaded to ensure the existence of a record on the lookup end of most foreign-key references.
- **Phase 5, Final Conversion** - In this phase, other conversions are carried out that require all tables to be populated.

After Phase 5 is complete, the Application database is ready for login and licensing. At this point, you may modify the data in the UET forms (e.g., remove the "pref-type" class), then logout and continue with Impact Schema. This is a way to purge unwanted extensions, as only the columns present in both the migration database and Application database will be converted in Phase 8.

- **Phase 6, Initialize APS** - APS tables are initialized from Work Center and Bill of Material and Job Routing data. Run this phase only AFTER the latest SyteLine service pack has been installed.
- **Phase 7, Impact Schema (User Extended Tables)** - This phase creates columns to store table extensions. Run this phase only AFTER the latest SyteLine service pack has been installed.
- **Phase 8, Load UET Data Files** - Each SQL-loadable UET flat-file (x*.d7) is loaded into a corresponding table in the migration database. Run this phase only AFTER the latest SyteLine service pack has been installed.
- **Phase 9, Convert UET Data** - Table extensions are copied from the migration database to the appropriate records in the Application database. Run this phase only AFTER the latest SyteLine service pack has been installed.

**NOTE:** Not all the phases can be run at this point in the procedure. Please read the detail for each phase below for ones with special instructions.
Make Selections on the Source Tab

Make selections in the following fields:

1. **Schema Level** - Choose the schema level of the source database.
2. **Multi-Byte** - Select Multi-Byte if the source database uses a Multi-Byte code-page. Phase 1 looks for .d7w files created by DumpUTF8.p and translates them to .d7u files. Phase 2 looks for .d7u files. All data is translated to Unicode during conversion, regardless of the Multi-Byte setting.
3. **Data Path** - Enter the data path to which the 'symglbl' database was unloaded.
4. **Prepared Data Path** - Enter a new directory into Prepared Data Path, where prepared data files are stored during conversion. This drive requires available space approaching the total size of the unloaded files located in the data path.
Make Selections on the Destination Tab

Make selections in the following fields:

1. **SQL Server** - Enter the name of the SQL Server on which all databases will reside.
2. **sa Password** - Enter the password for the System Administration user 'sa' on the SQL Server.
3. **Migration Database** - Enter the name of an intermediate 'symglbl' migration database to be used during migration, and click the **Create** button. Its structure is built during Phase 2.

**NOTE:** You must migrate Symglbl and all Sites and Entities through Phases 1 & 2, before beginning Phase 3 for any Sites or Entities.

**NOTE:** Do not name Migration Databases using a prefixed or suffixed version of the string "SyteLine_AppConv". For example, instead of name "SyteLine_AppConvABC" or "ABC_SyteLine_AppConv", use name "ABC_AppConv".
Make Selections on the Options tab

<table>
<thead>
<tr>
<th>Extract</th>
<th>Overview</th>
<th>Phases</th>
<th>Source</th>
<th>Destination</th>
<th>Options</th>
<th>Status</th>
</tr>
</thead>
</table>

1. **Logfile Path** - Enter a Logfile Path where logfiles will be written.

2. **Starting and Ending Table** - (Optional) Enter Starting and Ending Table to limit processing to a specific range of data. If you leave these fields blank, all tables are processed.

3. **Stop at First Error** - Select Stop at First Error to stop the migration upon first detection of any error or data anomaly.

Click the **Run Migration** button to start processing. The Status tab shows the progress. An alert-box and bell signal completion. At completion, the progress is appended to a file "convert.log" in the Logfile Path.

Repeat Previous 6 Steps if Necessary

Repeat for an additional Phase or Table ranges.

**Load Data From Entity Database(s)**

Entities that share their Currency Master with subordinate Sites or Entities must be loaded first, at least through Phase 2, so the subordinate Sites and Entities can read the appropriate records from the parent Entity’s migration database.
Make Selection on the Overview Tab

On the Overview tab, clear **Load 'symglbl' Data**.

Select the Phases to Run on the Phases Tab

Select the phases to run. Do not run Phase 5 (Final Conversion) until phases 1-4 have completed.
Make Selections on the Source Tab

1. **Schema Level** - Choose the schema level of your source database.
2. **Multi-Byte** - Select Multi-Byte if the source database uses a Multi-Byte code-page. Phase 1 looks for .d7w files created by DumpUTF8.p and translates them to .d7u files. Phase 2 looks for .d7u files. All data is translated to Unicode during conversion, regardless of the Multi-Byte setting.
3. **Multi-Site** - Select Multi-Site. When you select this field, the Reports To Entity field becomes active.
4. **Reports To Entity** - Select this field if this Entity reports to a higher-level Entity in the hierarchy.
5. **Multi-Currency** - Select Multi-Currency if the source database had multi-currency enabled. If not, clear this field and enter a new currency code on the Destination tab.
6. **Shared Currency Master** - Select Shared Currency Master if this Entity shared the Currency master data from a higher-level Entity or from the global database.
7. **Data Path** - Enter the data path to which the entity database was unloaded.
8. **Prepared Data Path** - Enter a new directory into Prepared Data Path, where prepared data files will be stored during conversion. This drive requires available space approaching the total size of the unloaded files located in the data path.
Make Selections on the Destination Tab

1. **SQL Server** - Enter the name of the SQL Server on which all databases will reside.

2. **sa Password** - Enter the password for the System Administration user 'sa' on the SQL Server.

3. **Migration Database** - Enter the name of an intermediate migration database to be used during migration, and click the Create button. Its structure is built during Phase 2.

4. **Refresh Database Lists** - Click the Refresh Database Lists button to populate the Entity Migration Database, 'symglbl' Migration Database, and Application Database drop-downs.

5. **'symglbl' Migration Database** - Select the 'symglbl' migration database that was loaded earlier.

6. **Site/Entity Migration Databases** - Specify all (other) Site and Entity Migration Databases that were loaded during Phase 2.

7. **Application Database** - Select the application database for this Entity that was created in Step .

8. **Entity Migration Database** - If Reports To Entity and Shared Currency Master are checked on the Source tab, select the Entity Migration Database that was loaded earlier at least through Phase 3, corresponding to this Site's direct parent or "Reports To" Entity.

9. **Currency** - If multi-currency was not enabled in the source database, enter a currency code for all records in the target database. This value may not be left blank, and you cannot change the value during or after the conversion.
Make Selections on the Options tab

1. **Logfile Path** - Enter a Logfile Path where logfiles will be written. The default is the Working Directory of the conversion program.
2. **Starting and Ending Table** - (Optional) Enter Starting and Ending Table to limit processing to a specific range of data. This is a strict range and does not accept wildcards. It can be used to parallel-process portions of certain phases on different computers connected to one SQL Server (ensuring that each phase is completed on all computers before beginning the next phase), or to resume conversion or re-convert individual tables after correcting errors in the source data. For Phase 1, use extensionless .d names. For Phase 2, use SyteLine 6 table names (with hyphens). For Phases 3-4, 7, and 8, use SyteLine 8.01 table names (with underscores instead of hyphens). For User Extended Tables, specify the extensionless .d name in Phase 1 and the corresponding SyteLine table in other Phases according to the guidelines in the preceding sentence.

When using ranges, note that hyphen sorts lower than (i.e., comes before) “a”, and underscore sorts higher than (i.e., comes after) “z”. A simple method for starting at the first table after “table” is to specify Starting Table as “table-“ (the name of the table followed by a hyphen). This excludes “table” itself but processes any table having a prefix identical to “table” followed by any letter, hyphen, or underscore. A simple method for ending at the last table before “table” is to specify Ending Table as “tabl_d_zz” (the name of the table with its last character replaced by the preceding letter or digit followed by underscore and 2 “z”s). Again this excludes “table” itself but processes any table having a prefix near to “table” followed by any letter, hyphen, or underscore and any other letters (because no SyteLine tables contain 2 adjacent underscores). Using these methods, it is not necessary to know the entire list of tables or at which specific table the process is to be started or ended.

Refer to the tables below as examples:

<table>
<thead>
<tr>
<th>In Phase 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>To process:</strong></td>
</tr>
<tr>
<td>memo-top.d → memo-top.d7</td>
</tr>
<tr>
<td>prd-item.d → prd-item.d7</td>
</tr>
<tr>
<td>item.d → item.d7</td>
</tr>
<tr>
<td>xitem.d → xitem.d7</td>
</tr>
</tbody>
</table>
3. Performance - On multi-processor computers, use the fields in this section to distribute Phase 3 processing among the CPUs.

- Multi-Thread Tables Larger than N Rows - Check this field and then enter the number of rows a table must have before multi-thread begins.

- Threads - Enter the desired number of simultaneous threads (2-9). A single thread is used for tables having less than or equal to the number of rows designated in the Multi-Thread Tables Larger than N Rows field above.

4. Fast-Load Large Tables - If Dump4bcp.p was used to unload large tables from the Progress database, this field can be set to load directly from the resulting *.d7b files into the application database during Phase 2 (bypassing the conversion database and eliminating or significantly reducing the Phase 3 processing for these tables). Notes attached to these records are loaded during Phase 3. Initial tables supported by Dump4bcp.p are: ledger & matltran (and its sub-table matltran_amt) for SyteLine 6.01 or later source databases.

### In Phase 2

<table>
<thead>
<tr>
<th>To process:</th>
<th>Specify:</th>
</tr>
</thead>
<tbody>
<tr>
<td>memo-top.d7 → [memo-topic]</td>
<td>memo-topic</td>
</tr>
<tr>
<td>prd-item.d7 → [prod-mix-item]</td>
<td>prod-mix-item</td>
</tr>
<tr>
<td>item.d7 → [item]</td>
<td>item</td>
</tr>
<tr>
<td>xitem.d7 → [ux-item]</td>
<td>item</td>
</tr>
</tbody>
</table>

### In other Phases

<table>
<thead>
<tr>
<th>To process:</th>
<th>Specify:</th>
</tr>
</thead>
<tbody>
<tr>
<td>[memo-topic] → memo_topic</td>
<td>memo_topic</td>
</tr>
<tr>
<td>[prod-mix-item] → prod_mix_item</td>
<td>prod_mix_item</td>
</tr>
<tr>
<td>[item] → item</td>
<td>item</td>
</tr>
<tr>
<td>[ux-item] → item</td>
<td>item</td>
</tr>
</tbody>
</table>
5. **Replace deleted user names in auditing tables with** - Earlier versions of SyteLine allowed deletion of a User record even after some auditing records had been created by that user. This is not allowed in Infor ERP SyteLine. Select this option and enter a user name to replace the deleted users’ names. You may enter an existing user name from the database being migrated, a new user automatically added for SyteLine 8.01 (e.g. "sa"), or an entirely new name in which case a new user record will be created. Clear this option to convert the deleted user names as NULLs. This will cause validation errors on some tables, listed below:

<table>
<thead>
<tr>
<th>Table</th>
<th>NULL Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adp_parm</td>
<td>Yes</td>
</tr>
<tr>
<td>Cad_parm</td>
<td>Yes</td>
</tr>
<tr>
<td>Ctc_log</td>
<td>Yes</td>
</tr>
<tr>
<td>Inv_ms_log</td>
<td>Yes</td>
</tr>
<tr>
<td>Jobt_mat</td>
<td>Yes</td>
</tr>
<tr>
<td>Poblchnchg</td>
<td>No</td>
</tr>
<tr>
<td>Pochange</td>
<td>No</td>
</tr>
<tr>
<td>Pochg</td>
<td>No</td>
</tr>
<tr>
<td>Poitmchnchg</td>
<td>No</td>
</tr>
<tr>
<td>Proj_ship</td>
<td>Yes</td>
</tr>
<tr>
<td>Proj_wip</td>
<td>No</td>
</tr>
<tr>
<td>Rev_ms_log</td>
<td>No</td>
</tr>
</tbody>
</table>

6. **Stop at First Error** - Select Stop at First Error to stop the conversion upon first detection of any error or data anomaly. Clear this option to continue processing the next table(s) and/or Phase(s). In either case, detected errors are logged to the Status tab and written to a logfile.

7. **Maximum Errors for bcp** - Phase 2 uses the bcp (Bulk Copy) utility to import data from flat-files. Bcp performs minimal validation as rows are imported, including checking for proper data-types and lengths. If the number of rows with that fail validation is below a threshold, bcp imports the remaining rows and reports the errors encountered; otherwise bcp imports nothing. Enter the number of data errors for bcp to detect before aborting the import for each table. Use this option if a table is failing validation to help determine which rows contain errors. Increase the value until the remaining rows are imported, then determine which rows are missing from the Migration database.

8. **Locator Mode; Starting Row** - If Phase 3 fails due to a data validation problem, use this option to locate the invalid row and display its converted column values that might be too long or out of range. If this is successful, subsequent errors can be located by setting the Starting Row to the next row and trying again.
9. **Substitute for Leading Spaces** - Enter a single character to Substitute for Leading Spaces in non-formatted character fields. Leading spaces are not allowed in Infor ERP SyteLine, except in alpha-keys (for example, CO number, PO number), and in account numbers when the account format is numeric with leading zeroes suppressed (for example, “ZZZZZ”). To maintain sorting as in the source database, enter a character that sorts before the first character of the lowest-sorting non-space-led field in any field in any table containing leading spaces (exclamation, double-quote, #, $, %, &, single-quote, (,), *, +, comma, -, period, slash; and unless digits are used to start fields, also any digit, colon, semi-colon, <, =, >, question-mark, or @).

10. **Truncate Destination Table Before Converting** - Use this option during Phases 3 and/or 9 to remove all rows from the destination table(s) before converting rows from the Migration database. This is useful in case a previous run failed and left a partial set of rows remaining.

11. **Truncate Overstuffed Character Fields** - Select Truncate Overstuffed Character Fields to automatically truncate all character fields with values in the source database set longer than the display format. The extraneous data remains in the migration database, but no warning is shown. Clear this option to abort loading the entire table when this condition is detected. This allows anomalies to be found without running overstuff.p.

**Click the Run Migration Button**

Click the **Run Migration** button to start processing. The Status tab shows the progress. An alert-box and bell signal completion. At completion, the progress is appended to a file "convert.log" in the Logfile Path.

**Repeat Previous 5 Steps if Necessary**

Repeat for additional Phases or Table ranges. The Final Conversion phase should not be run until all prior Phases have completed.

**Perform Post Conversion Tasks**

After conversion is complete, perform the “Post-Conversion Tasks” on page 202.

**Repeat for additional Entity database(s)**

Repeat the above Load Data From Entity Database(s) steps for any additional entity databases.
Load the Data From Site Database(s)

Make Selection on the Overview Tab

On the Overview tab, clear **Load 'symglbl' Data.**

Make Selections on the Phases Tab

Select the phases to run. Do not run Phase 5 (Final Conversion) until phases 1-4 have completed.
Make Selections on the Source Tab

1. **Schema Level** - Choose the schema level of your source database.
2. **Multi-Byte** - Select Multi-Byte if the source database uses a Multi-Byte code-page. Phase 1 looks for .d7w files created by DumpUTF8.p and translates them to .d7u files. Phase 2 looks for .d7u files. All data is translated to Unicode during conversion.
3. **Multi-Site** - Select Multi-Site. The Reports To Entity becomes active.
4. **Reports To Entity** - Select Reports To Entity if this site reports to a higher level entity in the hierarchy.
5. **Multi-Currency** - Select Multi-Currency if the source database had multi-currency enabled. If not, clear this field and enter a new currency code on the Destination tab.
6. **Shared Currency Master** - Select Shared Currency Master if this site shared the currency master data from a higher-level entity or from the global database.
7. **Data Path** - Enter the data path to which the entity database was unloaded.
8. **Prepared Data Path** - Enter a new directory into Prepared Data Path, where prepared data files will be stored during conversion. This drive requires available space approaching the total size of the unloaded files located in the data path.
Make Selections on the Destination Tab

1. **SQL Server** - Enter the name of the SQL Server on which all databases will reside.
2. **sa Password** - Enter the password for the System Administration user 'sa' on the SQL Server.
3. **Migration Database** - Enter the name of an intermediate migration database to be used during conversion, and click the Create button. Its structure is built during Phase 2.
4. **Refresh Database Lists** - Click the Refresh Database Lists button to populate the Entity migration database, 'symglbl' migration database, and Application Database drop-downs.
5. **Entity Migration Database** - If Reports To Entity and Shared Currency Master are checked on the Source tab, select the entity migration database that was loaded earlier, corresponding to this site's direct parent or "Reports To" Entity.
6. **'symglbl' Migration Database** - Choose the 'symglbl' migration database loaded earlier.
7. **Site/Entity Migration Databases** - Specify all (other) Site and Entity Migration Databases that were loaded during Phase 2.
8. **Application Database** - Select the Application Database for this entity.
9. **Currency** - If multi-currency was not enabled in the source database, enter a currency code for all records in the target database. This value may not be left blank, and you cannot change the value during or after the conversion.
Make Selections on the Options tab

1. **Logfile Path** - Enter a Logfile Path where logfiles will be written. The default is the Working Directory of the conversion program.
2. **Starting and Ending Table** - (Optional) Enter Starting and Ending Table to limit processing to a specific range of data. This is a strict range and does not accept wildcards. It can be used to parallel-process portions of certain phases on different computers connected to one SQL Server (ensuring that each phase is completed on all computers before beginning the next phase), or to resume conversion or re-convert individual tables after correcting errors in the source data. For Phase 1, use extensionless .d names. For Phase 2, use SyteLine 6 table names (with hyphens). For Phases 3-4, 7, and 8, use Infor ERP SyteLine table names (with underscores instead of hyphens). For User Extended Tables, specify the extensionless .d name in Phase 1 and the corresponding SyteLine table in other Phases according to the guidelines in the preceding sentence.

When using ranges, note that hyphen sorts lower than (i.e., comes before) “a”, and underscore sorts higher than (i.e., comes after) “z”. A simple method for starting at the first table after “table” is to specify Starting Table as “table-“ (the name of the table followed by a hyphen). This excludes “table” itself but processes any table having a prefix identical to “table” followed by any letter, hyphen, or underscore. A simple method for ending at the last table before “table” is to specify Ending Table as “tabld_zz” (the name of the table with its last character replaced by the preceding letter or digit followed by underscore and 2 “z”s). Again this excludes “table” itself but processes any table having a prefix near to “table” followed by any letter, hyphen, or underscore and any other letters (because no SyteLine tables contain 2 adjacent underscores). Using these methods, it is not necessary to know the entire list of tables or at which specific table the process is to be started or ended.

Refer to the tables below as examples:

<table>
<thead>
<tr>
<th>In Phase 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>To process:</strong></td>
</tr>
<tr>
<td>memo-top.d → memo-top.d7</td>
</tr>
<tr>
<td>prd-item.d → prd-item.d7</td>
</tr>
<tr>
<td>item.d → item.d7</td>
</tr>
<tr>
<td>xitem.d → xitem.d7</td>
</tr>
</tbody>
</table>
3. **Performance** - On multi-processor computers, use the fields in this section to distribute Phase 3 processing among the CPUs.

- **Multi-Thread Tables Larger than N Rows** - Check this field and then enter the number of rows a table must have before multi-thread begins.
- **Threads** - Enter the desired number of simultaneous threads (2-9). A single thread is used for tables having less than or equal to the number of rows designated in the **Multi-Thread Tables Larger than N Rows** field above.

4. **Fast-Load Large Tables** - If Dump4bcp.p was used to unload large tables from the Progress database, this field can be set to load directly from the resulting *.d7b files into the application database during Phase 2 (bypassing the migration database and eliminating or significantly reducing the Phase 3 processing for these tables). Notes attached to these records are loaded during Phase 3. Initial tables supported by Dump4bcp.p are: ledger & matltran (and its sub-table matltran_amt) for SyteLine 6.01 or later source databases.
5. **Replace deleted user names in auditing tables with** - Earlier versions of SyteLine allowed deletion of a User record even after some auditing records had been created by that user. This is not allowed in SyteLine 8.01. Select this option and enter a user name to replace the deleted users’ names. You may enter an existing user name from the database being migrated, a new user automatically added for SyteLine 8.01 (e.g. "sa"), or an entirely new name in which case a new user record will be created. Clear this option to convert the deleted user names as NULLs. This will cause validation errors on some tables, listed below:

<table>
<thead>
<tr>
<th>Table</th>
<th>NULL Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adp_parm</td>
<td>Yes</td>
</tr>
<tr>
<td>Cad_parm</td>
<td>Yes</td>
</tr>
<tr>
<td>Ctc_log</td>
<td>Yes</td>
</tr>
<tr>
<td>Inv_ms_log</td>
<td>Yes</td>
</tr>
<tr>
<td>Jobt_mat</td>
<td>Yes</td>
</tr>
<tr>
<td>Poblncg</td>
<td>No</td>
</tr>
<tr>
<td>Pochange</td>
<td>No</td>
</tr>
<tr>
<td>Pochg</td>
<td>No</td>
</tr>
<tr>
<td>Poitmchg</td>
<td>No</td>
</tr>
<tr>
<td>Proj_ship</td>
<td>Yes</td>
</tr>
<tr>
<td>Proj_wip</td>
<td>No</td>
</tr>
<tr>
<td>Rev_ms_log</td>
<td>No</td>
</tr>
</tbody>
</table>

6. **Stop at First Error** - Select Stop at First Error to stop the conversion upon first detection of any error or data anomaly. Clear this option to continue processing the next table(s) and/or Phase(s). In either case, detected errors are logged to the Status tab and written to a logfile.

7. **Maximum Errors for bcp** - Phase 2 uses the bcp (Bulk Copy) utility to import data from flat-files. Bcp performs minimal validation as rows are imported, including checking for proper data-types and lengths. If the number of rows with that fail validation is below a threshold, bcp imports the remaining rows and reports the errors encountered; otherwise bcp imports nothing. Enter the number of data errors for bcp to detect before aborting the import for each table. Use this option if a table is failing validation to help determine which rows contain errors. Increase the value until the remaining rows are imported, then determine which rows are missing from the Migration database.

8. **Locator Mode; Starting Row** - If Phase 3 fails due to a data validation problem, use this option to locate the invalid row and display its converted column values that might be too long or out of range. If this is successful, subsequent errors can be located by setting the Starting Row to the next row and trying again.
9. **Substitute for Leading Spaces** - Enter a single character to Substitute for Leading Spaces in non-formatted character fields. Leading spaces are not allowed in Infor ERP SyteLine, except in alpha-keys (for example, CO number, PO number), and in account numbers when the account format is numeric with leading zeroes suppressed (for example, “ZZZZZ”). To maintain sorting as in the source database, enter a character that sorts before the first character of the lowest-sorting non-space-led field in any field in any table containing leading spaces (exclamation, double-quote, #, $, %, &, single-quote, (,), *, +, comma, -, period, slash; and unless digits are used to start fields, also any digit, colon, semi-colon, <, =, >, question-mark, or @).

10. **Truncate Destination Table Before Converting** - Use this option during Phases 3 and/or 9 to remove all rows from the destination table(s) before converting rows from the Migration database. This is useful in case a previous run failed and left a partial set of rows remaining.

11. **Truncate Overstuffed Character Fields** - Select Truncate Overstuffed Character Fields to automatically truncate all character fields with values in the source database set longer than the display format. The extraneous data remains in the migration database, but no warning is shown. Clear this option to abort loading the entire table when this condition is detected. This allows anomalies to be found without running overstuff.p.

**Click the Run Migration Button**

Click the **Run Migration** button to start processing. The Status tab shows the progress. An alert-box and bell signal completion. At completion, the progress is appended to a file "convert.log" in the Logfile Path.

**Click Run Migration Button for Additional Phases or Table Ranges**

Repeat the Load the Data From Site Database(s) steps for additional phases or table ranges, and click the Run Migration button when ready. Do not run the final conversion phase until all prior phases have completed.

**Perform Post Conversion Tasks**

After conversion is complete, perform the “Post-Conversion Tasks” on page 202

**Repeat Load the Data From Site Database(s) steps for Additional Site Databases**

Repeat the Load the Data From Site Database(s) steps for additional site databases.

The steps for performing conversion are now complete. Following the Post Conversion Tasks, the rest of this chapter is reference material and troubleshooting tips.

**Post-Conversion Tasks**

The following tasks are required after conversion to prepare the application database for use with Infor ERP SyteLine 8.01:
1. Open the License Management form and enter your license key. See the *Infor ERP SyteLine System Administration Guide* for information about the License Management form and how to apply your license.

2. Enter password for all user records. Because passwords are stored in an encrypted format, they cannot be brought forward from the source database.

3. Set up form-based, user-, and group-level security. See the *Infor ERP SyteLine System Administration Guide* or the online help for more information on how to set up user authorizations.

4. Unhide and appropriately label any desired User-Defined Fields on Forms’ User-Defined tabs.

### Outputs

<table>
<thead>
<tr>
<th>Name</th>
<th>Phase</th>
<th>Directory</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convert.log</td>
<td>All</td>
<td>Logfile Path</td>
<td>Contents of the Status tab</td>
</tr>
<tr>
<td>Load.log</td>
<td>2</td>
<td>Prepared Data Path</td>
<td>Number of records loaded per table; format is comparable to &quot;un-load.log&quot; from the Database Unload utility.</td>
</tr>
<tr>
<td>Load2.log</td>
<td>3</td>
<td>Logfile Path</td>
<td>Number of records converted per table</td>
</tr>
<tr>
<td>Crewsize.log</td>
<td>Final</td>
<td>Logfile Path</td>
<td>List of records whose non-integral Crew Size was altered</td>
</tr>
</tbody>
</table>

### Disk Usage

Plan for the following space requirements:

<table>
<thead>
<tr>
<th>Data Store</th>
<th>Estimated Size</th>
<th>Needed Through</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source database (Progress)</td>
<td>X</td>
<td>Database Utilities Unload (pre Conversion)</td>
</tr>
<tr>
<td>Unloaded data files (*.d)</td>
<td>80% of X</td>
<td>Conversion Phase 1 (Prepare Data Files)</td>
</tr>
<tr>
<td>Prepared data files (*.d7)</td>
<td>55% of X</td>
<td>Conversion Phase 2 (Load Data Files)</td>
</tr>
<tr>
<td>Conversion database (SQL)</td>
<td>150% of X</td>
<td>Final Conversion (OK to Shrink after Phase 2)</td>
</tr>
<tr>
<td>Application database transaction log (SQL)</td>
<td>35% of X</td>
<td>Final Conversion (OK to Shrink after Final Conversion)</td>
</tr>
<tr>
<td>Application database data files (SQL)</td>
<td>350% of X</td>
<td>--</td>
</tr>
<tr>
<td>High-water mark when minimizing</td>
<td>535% of X</td>
<td>N/A</td>
</tr>
<tr>
<td>Total when not minimizing</td>
<td>770% of X</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Troubleshooting

Following are some common errors that might occur during conversion, with suggested remedies:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Error</th>
<th>Where</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>String data, right truncation</td>
<td>&lt;Prepared Data Path&gt;&lt;dump-name.err&gt;</td>
<td>Run overstuff.p in the source database to find overstuffed fields.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Correct these in the source database and unload again, or</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>modify the &lt;VerId&gt;/*.tbl file to allow for more data, and use the</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Truncate option.</td>
</tr>
<tr>
<td>3</td>
<td>Cannot insert the value NULL into column 'xxx', table 'zzz.dbo.yyy';</td>
<td>Convert.log</td>
<td>Run ValNull.p in the source database to find invalid (Blank) and</td>
</tr>
<tr>
<td></td>
<td>column does not allow nulls. INSERT fails.</td>
<td></td>
<td>(Unknown) fields. Correct these in the source database and unload</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>again, or</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Use SELECT statements in the Conversion database to find</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>offending records. Correct or delete these and re-run Phase 3 for this</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>table.</td>
</tr>
<tr>
<td>3</td>
<td>INSERT statement conflicted with COLUMN CHECK constraint 'CK_yyy_xxx'.</td>
<td>Convert.log</td>
<td>Use SELECT statements in the Conversion database to find</td>
</tr>
<tr>
<td></td>
<td>The conflict occurred in database 'zzz', table 'yyy', column 'xxx'.</td>
<td></td>
<td>offending records. Correct or delete these and re-run Phase 3 for this</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>table.</td>
</tr>
<tr>
<td>4</td>
<td>ALTER TABLE statement conflicted with COLUMN FOREIGN KEY constraint</td>
<td>Convert.log</td>
<td>Run ValFK.p in the source database to find invalid foreign-key</td>
</tr>
<tr>
<td></td>
<td>'kkk'. The conflict occurred in database 'zzz', table 'yyy', column</td>
<td></td>
<td>references. Correct these in the source database and unload again, or</td>
</tr>
<tr>
<td></td>
<td>'xxx'.</td>
<td></td>
<td>Use SELECT statements in the Application database to find</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>offending records. Correct or delete these and re-run Phase 4 for this</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>table. See Resolving Foreign-Key Conflicts.</td>
</tr>
</tbody>
</table>

Resolving Foreign-Key Conflicts

A Foreign-Key Relationship is a reference in one record to the primary-keys of another record. For example, most G/L Account columns must either be Null or refer to an existing record in the Chart of Accounts table. The Application database utilizes SQL Foreign-Key Constraints to enforce these relationships, thus ensuring referential integrity between tables.
If a reference is incorrect in the source database, a Foreign-Key Conflict is raised during Phase 4. All such conflicts must be resolved before the database is ready for use with SyteLine 8.01.

Following is an example of resolving a Foreign-Key Conflict.

The SQL error message for this example is:

```sql
*** Error occurred during Apply coh.key to SyteLine_App
ALTER TABLE statement conflicted with TABLE FOREIGN KEY constraint 'cohFk1'. The conflict occurred in database 'SyteLine_App', table 'customer'.
```

The above message has the following information:

- The record containing the incorrect reference is located in the "coh" table (foreign-key table).
- The reference is intended to identify a record in the "customer" table (primary-key table).
- The name of the foreign-key relationship is "cohFk1" (constraint name).
- The relationship is described in the file `<InforInstallDir>\SyteLine\ApplicationDB\Foreign Keys\coh.key`.

If the relationship is based on a single key column, its name is also given. This information is also listed in the .key file.

To resolve the conflict, do the following:

1. Determine which columns in the foreign-key table "coh" are meant to refer to which columns in the primary-key table "customer." These are listed in the .key file under the name of the relationship as in the example below:

   ```sql
   ADD CONSTRAINT cohFk1
   FOREIGN KEY (cust_num, cust_seq)
   REFERENCES customer (cust_num, cust_seq)
   ) REFERENCES customer (cust_num, cust_seq)
   )
   ```

2. Build a T-SQL statement in the Query Analyzer to find incorrect references as in the example below:

   ```sql
   SELECT co_num, cust_num, cust_seq
   FROM coh
   WHERE cust_num IS NOT NULL
   AND NOT EXISTS(SELECT 1 FROM customer
   WHERE customer.cust_num = coh.cust_num
   ```
AND customer.cust_seq = coh.cust_seq)

The above statement shows (SELECT) the key column(s) (co_num) and incorrect references (cust_num, cust_seq) from every record in the foreign-key table (coh) whose foreign-keys (coh.cust_num, coh.cust_seq) seemingly refer to a record (NOT NULL) but do not identify (NOT EXISTS) a record in the primary-key table (customer).

A grid is displayed that lists the selected columns for each record with an incorrect reference. You now decide how to address each incorrect reference. Choose from among the following 3 options:

- Change the foreign-key columns to refer to an existing primary-key record.
  For example:
  ```sql
  UPDATE coh SET cust_seq = 4 WHERE coh.co_num = 'S000215869'
  ```

- Add a new primary-key record with primary-keys to match the foreign-keys (not recommended at this point in the process, because SyteLine triggers are disabled and will not provide their normal validation or cascading actions); or

- Change the foreign-key columns to Null.
  For example, to affect all incorrect records:
  ```sql
  UPDATE coh SET cust_num = NULL, cust_seq = NULL FROM coh
  WHERE cust_num IS NOT NULL
  AND NOT EXISTS(SELECT 1 FROM customer
  WHERE customer.cust_num = coh.cust_num
  AND customer.cust_seq = coh.cust_seq)
  ```

All references are correct for this constraint when the SELECT statement above displays an empty grid.

After all references are correct for all constraints in a .key file, phase 4 can be re-run for the foreign-key table (enter the table name "coh" in both the Starting Table and Ending Table fields).
Relative Duration

The following table approximates the relative successful completion times of each phase:

<table>
<thead>
<tr>
<th>Phase</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>65</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

Results may vary and can differ greatly when parallel processes are used.

Re-entrance

Phases 1-4, 6, and 8 can be re-executed for individual tables or ranges if data inconsistencies are detected and corrected. The following table provides details:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Preparation Required Before Re-execution</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>None</td>
<td>.d7 file will be overwritten by default</td>
</tr>
<tr>
<td>2</td>
<td>None</td>
<td>Table in Conversion database is dropped and re-created by default</td>
</tr>
<tr>
<td>3</td>
<td>Truncate table in Application database</td>
<td>Depending on the type of error received during previous execution, data may remain in the table; we do not truncate by default</td>
</tr>
<tr>
<td>4</td>
<td>None</td>
<td>Existing constraints are dropped for each table and re-created by default</td>
</tr>
<tr>
<td>6</td>
<td>None</td>
<td>Stored Procedure purges all data before recreating it.</td>
</tr>
<tr>
<td>8</td>
<td>None</td>
<td>Table in Conversion database is dropped and re-created by default</td>
</tr>
</tbody>
</table>

Parallel Execution

Phases 1-4 can be executed on multiple computers or multiple processes in parallel, to reduce total duration. This is especially useful on multi-processor systems.

1. Start multiple instances of SLConv.exe on 1 or more computers.
2. Enter a unique Logfile Path for each instance; all other options should be identical.
3. Use the Starting Table/Ending Table range option to split the load. Note your largest tables by size of .d and attempt to group these separately (for example, if largest tables are ledger and matltran, then use 4 ranges: a-l, l-m, m-n, n-z).

   NOTE: Note: Range l-m does not process any tables beginning with "m", because "matlearn" (the first table beginning with "m") sorts higher than "m" in dictionary order. Another way to process the same range is l-l_zz.

When using parallel execution, follow these guidelines for minimum contention:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>Start first instance; wait until it has finished dropping foreign-keys and loaded user_local table; then start remaining instances.</td>
</tr>
<tr>
<td>4</td>
<td>None</td>
</tr>
</tbody>
</table>

Monitor system load to avoid performance degradation.
Setting Up a Developer Environment

NOTE: In order to get access to the forms you’ll need for development work, you must have purchased the SyteLineDev license module.

If you need to set up a developer environment, you should do so AFTER you have already created a database server and utility server. The steps in this chapter assume that you are creating an Administrative Client on its own machine. If you want to do development work from the Administrative Client on the utility server, you can.

Requirements

- .NET Framework version 2.0 complete with the 3.5 service pack 1 update.
- Internet Information Services (IIS) and Active Server Pages must be installed and allowed. You must reboot your machine after installing these pieces for Infor ERP SyteLine to work properly.
- A client workstation (in this case an Administrative Client) must have a Windows 2003, Windows XP, or Windows Vista operating system.
- Microsoft Visual Studio 2005 or 2008 is required if you want to create IDO extension class assemblies or debug form scripts. If you use Visual Studio 2008, you must set your project’s target framework to .NET Framework 2.0. This is done in Visual Studio’s project’s properties.

Remove Dependency on the IDO Runtime Service

In a standard Infor ERP SyteLine installation, the Infor Framework services (TaskMan, EventService, Replicator, ReplQLListener, and InboundBus) are dependent on the Infor Framework IDO Runtime service. That is, when the IDO Runtime service stops, the other services must also stop; and the IDO Runtime service must be started before the other services can start.

In a development environment, you may be running the IDO Runtime Development Server instead of the IDO Runtime service. In this case, you do not want the starting/stopping of Infor Framework services to be dependent on the IDO Runtime service. To remove the dependency, uninstall the services and then reinstall them using the .NET InstallUtil utility with the /MGDevMode option.

To uninstall the services, run these commands:
Setting Up a Developer Environment

`Dotnetpath\InstallUtil -u SyteLinepath\TaskMan.exe`

`Dotnetpath\InstallUtil -u SyteLinepath\EventService.exe`

`Dotnetpath\InstallUtil -u SyteLinepath\ReplQLListener.exe`

`Dotnetpath\InstallUtil -u SyteLinepath\Replicator.exe`

`Dotnetpath\InstallUtil -u SyteLinepath\InboundBus.exe`

Where

`Dotnetpath` is the path to the .NET runtime, usually `C:\WINDOWS\Microsoft.NET\Framework\v2.0.50727` and `SyteLinepath` is the path to the Framework utilities, usually `C:\Program Files\Infor\SyteLine`.

To reinstall the services without the dependency, run these commands:

`Dotnetpath\InstallUtil /MGDevMode SyteLinepath\TaskMan.exe`

`Dotnetpath\InstallUtil /MGDevMode SyteLinepath\EventService.exe`

`Dotnetpath\InstallUtil /MGDevMode SyteLinepath\ReplQLListener.exe`

`Dotnetpath\InstallUtil /MGDevMode SyteLinepath\Replicator.exe`

`Dotnetpath\InstallUtil /MGDevMode SyteLinepath\InboundBus.exe`

Later, when you are finished with development mode, you can uninstall the services again and reinstall them without the /MGDevMode option in order to restore the default dependency.

Create Databases for use in Your Developer Environment

To keep your development work completely separate from a live production environment, you need to create at least one application database, one forms database, and one objects database on the database server. See Chapter 1, “Setting Up the Database Server” for instructions on how to create and configure databases and then return here.

Install an Administrative Client

Follow the steps in “Install Administrative Client” on page 65 to install and configure an administrative client on your developer machine and then return here.

Use Configuration Manager

The install process for an administrative client puts down a few extra files that aren’t found on an end-user client. One of these that you must use is the Configuration Manager utility. For more specific information about the options in this utility, see the Configuration Manager online help (click the Help button from any tab or screen in the utility).
1. Open **Configuration Manager**. Select **Start>All Programs>Infor>Tools>Configuration Manager**.

2. Click **New**. The **New Configuration** dialog box appears. Give your configuration a name and click **OK**.
3. The **Edit Configuration** screen appears with the Runtime (Client) tab selected.

![Edit Configuration Screen](image)

4. Yellow (or light shading if printing in black and white) has been added to the required fields on this tab just for the purposes of this manual. Notice there are two main sections on this screen, Runtime Application Database and Runtime Forms Database.

   - **Runtime Application Database** - In this section, provide the following information:
     - **User** - Enter the username. You provided this username when you created your application database earlier.
     - **Password** - Enter the password for the username. You provided this password when you created your application database earlier.
     - **Server** - Enter the name of your database server.

       **NOTE:** You can test your entries and your connection to the database server by clicking the Test User button. You will receive a success message if all is well.

   - **Database Name** - Select the name of the application database you created earlier.

   - **Runtime Forms Database** - In this section, provide the following information:
     - **User** - Enter the username. You provided this username when you created your forms database earlier.
     - **Password** - Enter the password for the username. You provided this password when you created your forms database earlier.
     - **Server** - Enter the name of your database server.

       **NOTE:** You can test your entries and your connection to the database server by clicking the Test User button. You will receive a success message if all is well.

   - **Database Name** - Select the name of the forms database you created earlier.
- **Form Templates Database Name** - If you created a templates database, select it here.

  **Application** - Select the default application of SL801. You can create "applications" with different parameters using the Applications tab on the Configuration Manager.

5. Click the **Objects Metadata** tab.

   ![Edit Configuration - SL8](image)

6. **Enabled** check box - for objects databases in which IDO objects and metadata must be checked in and out for editing using Visual SourceSafe (VSS), select this check box. If you select this check box, you must also designate a VSS server and database on the SourceSafe tab. Using VSS is optional.
7. Click the **Set Objects DB Specification** button. The **Set Objects Metadata Server/Database** screen appears:

8. Provide the following information:
   - **User** - Enter the username. This is the user name you supplied for the objects database earlier.
   - **Password** - Enter the password. This is the password you supplied for the objects database earlier.
   - **Server** - Enter the name of your database server.
   - **Database Name** - Select the name of the objects database you created earlier.

9. Click **OK** to close the **Set Objects Metadata Server/Database** screen. A success message appears. Click **OK**.

10. If you don’t plan to use Visual SourceSafe or FormControl, you are finished with this section. Click **OK** to close the **Edit Configuration** screen.

**Visual SourceSafe**

Using VSS is optional. The steps in this section assume you are going to use VSS.

11. Select the **Enabled** check box on the Objects Metadata tab.

12. Click the **Source Safe** tab on the Edit Configuration screen.

13. Provide the following information:
Path to srcsafe.ini - Specify the path to the shared directory on the server that contains the srcsafe.ini file for the Visual SourceSafe database.

VSS Project Name - Enter the name of the VSS project used to access the required databases.

User - Enter the VSS user. This user needs to be the same as the Infor ERP SyteLine user.

Password - Enter the VSS password. This password needs to be the same as the Infor ERP SyteLine password associated with the Infor ERP SyteLine user.

14. If you don’t plan to use FormControl, you are finished with this section. Click OK to close the Edit Configuration screen.

FormControl

Using FormControl is optional. The steps in this section assume you are going to use FormControl. For more detailed information about FormControl and the items on this tab, see the online help for the Configuration Manager utility.

1. Select the Enabled check box on the Objects Metadata tab.
2. Note that there are two major sections on the FormControl tab, Master Forms Database and Archive Forms Database.

   - Master Forms Database - This group box specifies the forms and form templates databases that FormControl should access for the forms to be created or edited.

   - Archive Forms Database - A database used by FormControl during the development of a WinStudio application. FormControl uses an archive forms database and an archive templates database to store definitions of forms and form-related objects that have been deleted from the FormControl production databases.

Master Forms Database

3. Provide the following information:

   - Database Type - Accept the default of MSS.
   - .NET Provider - Accept the default of MSS.
   - Provider Driver - Accept the default of Best Fit.
   - User - Enter the user ID to log into the database.
   - Password - Enter the password associated with the user ID.
   - Server - Specify the database server on which the forms to be created or edited are located.

   Misc. Connection Info - This field provides for an optional verbatim string to be added to the connection string. The SqlConnection class of ADO.NET, for instance, supports various additional connection options which could be specified here.

   Query Timeout - Enter the amount of time, in seconds, that the system is to wait for a response from the database server before generating a timeout error. A zero (0) in this field means that the system is to wait indefinitely.

   Database Name - Select from the list the name of a forms database that already exists on the server.
- **Form Templates Database Name** - Select from the list the name of a form templates database that already exists on the server.
- **Location Name** - This field is used for synchronizing forms between distributed development sites. This field refers to a specific runtime forms database. This location name is stored in a table in the runtime form templates database. In other words, it follows those runtime forms and form templates databases around, regardless of what configuration references them.

Whenever a FormControl action is executed (check-out, check-in, get, and so forth), a record is created in the FormManTranLog table that resides in the master form templates database. One of the columns in that record is the Location Name. If you choose to run FormControl synchronization (which requires a special synchronization configuration file named FormControl.xml), the synchronization process uses these location names to know which other runtime sites to which to synchronize the data.

If no location name is specified here, FormControl simply defaults the location name to Local. If FormControl is used only for actions involving one pair of master and runtime databases, then this location name has no particular significance.

**Archive Forms Database**

4. Provide the following information:

- **Database Type** - Accept the default of MSS.
- **.NET Provider** - Accept the default of MSS.
- **Provider Driver** - Accept the default of Best Fit.
- **User** - Enter the user ID to log into the database.
- **Password** - Enter the password associated with the user ID.
- **Server** - Specify the database server on which the archive forms database is located.
- **Misc. Connection Info** - This field provides for an optional verbatim string to be added to the connection string. The SqlConnection class of ADO.NET, for instance, supports various additional connection options which could be specified here.
- **Query Timeout** - Enter the amount of time, in seconds, that the system is to wait for a response from the database server before generating a timeout error. A zero (0) in this field means that the system is to wait indefinitely.
- **Database Name** - Select from the list the name of an archive database for forms that already exists on the server.
- **Form Templates Database Name** - Select from the list the name of an archive database for form templates that already exists on the server.
- **Enabled** - If Visual SourceSafe is being used for file management of the database files, select this check box.
Set Up Online Help

You must provide the name of the machine where you access the online help in order for the help to work.

5. Open **Configuration Manager**. Select **Start>All Programs>Infor>Tools>Configuration Manager**, and then click the **Applications** tab.

6. Select the **SL801 Application ID** and click the **Edit** button.

7. The **Edit Application** window appears.
8. Click the **Options** tab.

![Edit Application window](image)

9. In the **Help Server URL** field, enter the following:
   
   http://helpservername/SyteLine/

   The help server name is the name of the machine where the help resides. When setting up an administrative client, you can either put the name of the administrative client machine there, OR the name of the utility server. The help is in both places. If the help on the utility server will be updated frequently or customized, you might want to use that computer name.

10. Click **OK** to close the **Edit Application** window.

**Start IDO Runtime Development Server**

You must start the IDO Runtime Development Server in order for an administrative client to run.

1. Select **Start>All Programs>Infor>Tools>IDO Runtime Development Server**.
2. You can minimize the **IDO Runtime Development Server** application.
Run Infor ERP SyteLine

You can now run Infor ERP SyteLine.

1. Select Start>All Programs>Infor>Infor ERP SL.
2. The Logon screen appears.

![Sign In](image)

3. Provide the following information:
   - **User Name** - This is the Infor ERP SyteLine username. If you've not yet licensed your database, use "sa".
   - **Password** - This is the password associated with the user name.
   - **Configuration** - Select the development configuration you created earlier.

License Your Developer Database

Open up the License Management form and apply your license. See the Infor ERP SyteLine System Administration Guide for information about the License Management form and how to apply your license.
Uninstalling Infor ERP SyteLine

If you have a version of Infor ERP SyteLine and want to upgrade to another version (for example, from SyteLine ERP 7.05 to Infor ERP SyteLine 8.01), you MUST uninstall the old version before installing the new version. This is true for all pieces of your system; all servers and clients (except for a Click Once client; you do not need to uninstall a Click Once client).

Uninstalling DOES NOT remove databases.

NOTE: When going through the uninstall wizard, follow all the prompts you are given, including any requests to reboot your machine.

1. Make sure all users are logged out of the system.
2. Make a backup of all databases.
3. At the server or client machine of your choice, go to Add/Remove Programs (on Windows Vista, it is Programs and Features). You can uninstall in any order.
4. Select the SyteLine piece you want to uninstall and click the Change button.
5. Navigate through the wizard until you get the option to Modify, Repair, or Remove. Select either Removing to Upgrade or Removing Product.
6. Select Remove and click Next.
7. The next screen gives you two options:
   - Removing to Upgrade - Choose this option if you are upgrading from one version of SyteLine to another (for example, from SyteLine ERP 7.05 to InforERP SyteLine 8.01). This option leaves some registry entries regarding configurations so that you don’t have to define them again when installing the new version.
   - Removing Product - Choose this option if you want to completely remove Infor ERP SyteLine.

   Select either Removing to Upgrade or Removing Product.
8. Click Next.
9. At the Remove the Program screen, click Remove. The uninstall process may take several minutes.
10. When the uninstall process if complete, click Finish.
In a default installation, Infor ERP SyteLine uses the Fax capability built into the Windows operating system. Windows Fax runs on the Infor TaskMan machine under the control of TaskMan. For configuration instructions, see Configuring Windows Fax in the online help.

To set up a fax server separate from the TaskMan machine, you can use Infor Framework Fax Service. Fax Service runs on the fax server as a system service, monitoring a fax directory on the TaskMan machine. The service uses the Fax capability in the operating system on the fax server, just as TaskMan uses the capability on the TaskMan machine in the default installation. Instructions for installing Infor Framework Fax Service follow.

1. On the TaskMan machine, create a fax subdirectory to the TaskMan directory:

   ```
   \\
   \<TaskMan_server\<TaskMan_directory>\Report\Fax
   ```

   (In your path, replace `<TaskMan_directory>` with the path to TaskMan.exe, which is normally C:\Program Files\Infor\Syteline\TaskMan.exe.)

2. Share the new directory with the fax server machine; make sure to give the read/write privilege to the service account of Infor Framework Fax Service running at a remote server.

3. Create a directory on the fax server machine to hold the service (referred to as "FaxService Folder" below). The directory can be located anywhere on the fax server machine and can have any name.

4. On the TaskMan machine, select the following files in the TaskMan directory and copy them to the directory you created on the fax server machine:

   - FaxService.exe
   - FaxService.exe.Config
   - SendFax.exe
   - SendFax.exe.Config
   - Interop.MSFaxCom.dll

5. On the fax server machine, open a Command Prompt; then, change directory to the FaxService Folder.

   ```
   cd <FaxService Folder>
   ```

6. Register the service using .NET "InstallUtil" utility:

   ```
   %windir%\Microsoft.Net\Framework\v2.0.50727\InstallUtil.exe FaxService.exe
   ```

   If the service needs to be unregistered, use the same utility to do so with its /u option;
%windir%\Microsoft.Net\Framework\v2.0.50727\InstallUtil.exe /u FaxService.exe

7. Open the FaxService.exe.Config file in a text editor and look for an XML element named "DirectoriesToMonitor". Under the element add an string element with its value of remote TaskMan service’s fax subfolder, mentioned in Step 1 above (\<TaskMan_server\<TaskMan_directory\>\Report\Fax):

```xml
<applicationSettings>
  <Mongoose.FaxService.Properties.Settings>
    <setting name="DirectoriesToMonitor" serializeAs="Xml">
        <string>\<TaskMan_server\<TaskMan_directory\>\Report\Fax</string>
      </ArrayOfString>
    </setting>
    <setting name="ControlFilePattern" serializeAs="String">
      <value>Fax_*.txt</value>
    </setting>
    <setting name="PollingInterval" serializeAs="String">
      <value>300</value>
    </setting>
    <setting name="PollingSize" serializeAs="String">
      <value>50</value>
    </setting>
    <setting name="DebugMode" serializeAs="String">
      <value>False</value>
    </setting>
    <setting name="ArchiveControlFiles" serializeAs="String">
      <value>True</value>
    </setting>
  </Mongoose.FaxService.Properties.Settings>
</applicationSettings>

8. If the fax service is to monitor more than one instance of TaskMan, add them under the same element;

```xml
<applicationSettings>
  <Mongoose.FaxService.Properties.Settings>
    <setting name="DirectoriesToMonitor" serializeAs="Xml">
        <string>\<TaskMan_server\<TaskMan_directory\>\Report\Fax</string>
      </ArrayOfString>
    </setting>
    <setting name="ControlFilePattern" serializeAs="String">
      <value>Fax_*.txt</value>
    </setting>
    <setting name="PollingInterval" serializeAs="String">
      <value>300</value>
    </setting>
    <setting name="PollingSize" serializeAs="String">
      <value>50</value>
    </setting>
    <setting name="DebugMode" serializeAs="String">
      <value>False</value>
    </setting>
    <setting name="ArchiveControlFiles" serializeAs="String">
      <value>True</value>
    </setting>
  </Mongoose.FaxService.Properties.Settings>
</applicationSettings>
9. Configure the fax service on the Intranets form.
This utility provides a test client for the .NET Web Service (.NET API). If you install the web server components on your utility server and want to verify that it is installed and configured correctly without writing your own client, you can use this utility. You can test logging in and loading a collection (query).

Starting the Utility

From the utility server machine’s Start menu, select Start>All Programs>Infor>Tools>.NET Web Service Test Utility. The following window displays:
Connecting (Logging In) to the Web Service

You can connect to the web service by selecting Connect… from the WebService menu. The following dialog displays:

![Connect to Web Service dialog]

Enter this information:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Service URL</td>
<td>Enter a URL that points to the web service, in the format <code>http://webserver/IDORequestService/IDOWebService.asmx</code> where <code>webserver</code> is the local host (the name of the utility server where the utility is installed).</td>
</tr>
<tr>
<td>User Name</td>
<td>Enter the name of a user who has access to the configuration.</td>
</tr>
<tr>
<td>Password</td>
<td>Enter the user’s password.</td>
</tr>
<tr>
<td>Configuration</td>
<td>Click on the Configuration link to select from a list of configurations available for this web server, or enter an existing configuration name.</td>
</tr>
</tbody>
</table>

When you have successfully connected to the web service, the status bar at the bottom of the utility window will look like this:

![Connected status bar]

Loading a Data Set

After you log in, you can select “Open DataSet…” from the WebService menu. This brings up the Open Data Set Parameters dialog:

![Open Data Set Parameters dialog]
Enter the following information to specify the data set you want to load:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDO Name</td>
<td>SyteLine IDO name, for example <code>SL.SLCustomers</code></td>
</tr>
<tr>
<td>Properties</td>
<td>A comma-delimited list of property names to include in the data set, for example <code>CustNum, Name</code></td>
</tr>
<tr>
<td>Filter</td>
<td>Optional filter, for example <code>CustNum like 'XYZ%'</code></td>
</tr>
<tr>
<td>Record Cap</td>
<td>Default: use the default record cap (currently 200)</td>
</tr>
<tr>
<td></td>
<td>Unlimited: no cap</td>
</tr>
<tr>
<td></td>
<td>Other: Enter a user-specified cap</td>
</tr>
</tbody>
</table>

Viewing Results

Click **OK** to view the resulting data set. For example:
This appendix gives supplementary information about form synchronization.

For a detailed description of the synchronization process, see the document *About Form Synchronization* on the support site.

For information about using FormSync, see Help for FormSync.

**Basic and Major Customizations**

Synchronization may require a detailed understanding of WinStudio development. The degree of development experience required of the user depends on the level of customization in a forms database.

- **Basic Customizations** - If customized versions contain only those changes allowed to users with Basic editing permission, FormSync automatically handles all customizations. Experience with form development in WinStudio is not required. By default, FormSync retains Basic customizations without prompting the user about whether to keep or remove each customization. Basic editing permission is assigned to users in the **Users** form. Basic customizations are listed below.

- **Major Customizations** - If customized versions contain changes other than Basic customizations, the FormSync user should be prepared to reply to prompts pertaining to specific attributes of forms and global objects. Interpreting prompts, testing results, and manually changing merged forms all require an understanding of form development in WinStudio. Users should also be familiar with a site's development plan and policies.

**Basic Customizations to Forms**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caption</td>
<td>The title of a form displayed in the title bar</td>
</tr>
<tr>
<td>Dimensions</td>
<td>The height, width, and position (top and left) of a form</td>
</tr>
</tbody>
</table>

**Basic Customizations to Components**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caption</td>
<td>The label of a component</td>
</tr>
<tr>
<td>Default Value</td>
<td>The default value of a component</td>
</tr>
<tr>
<td>Dimensions</td>
<td>The height, width, and position (top and left) of a component</td>
</tr>
<tr>
<td>Hidden</td>
<td>A component is not displayed on the form</td>
</tr>
<tr>
<td>Read-only</td>
<td>A component's data is displayed but cannot be changed</td>
</tr>
</tbody>
</table>
Default Synchronization and Alternatives to Default Synchronization

The default settings for synchronization are recommended in this guide because many customizations are merged automatically, thus reducing editing time after synchronization. With default settings, customized versions of forms in the Target configuration are merged with new vendor-level versions from the Source configuration. Old vendor-level versions of forms in the Target are then replaced by new vendor-level versions from the Source.

Remove Customizations

An alternative to merging customizations is removal of customizations from the Target configuration. After removing customizations, FormSync replaces vendor-level versions of forms in the Target with new vendor-level versions from the Source.

You can remove customizations selectively from the Target and update the Target with new versions from the Source.

NOTE: The result of removing all customizations is the same as the result of replacing your Target forms database with a new forms database.

See Help for FormSync, "Replace Base-Level Versions and Remove Customizations," for instructions.

Retain Customizations

You can retain all or some customizations in the Target configuration and update vendor-level versions of forms in the Target with new vendor-level versions from the Source. Customizations are unchanged and not merged with new attributes from the Source.

NOTE: This procedure is generally not recommended because retained customizations override new vendor-level versions copied from the Source configuration. Enhancements and fixes in the new versions in the Target are not available to users running customized forms in which customizations were retained and not merged.

See Help for FormSync, "Replace Base-Level Versions and Leave Customizations Unchanged," for instructions.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Clear on New</td>
<td>When a new record is inserted, the current value of the previously selected record is retained</td>
</tr>
<tr>
<td>Default on Copy</td>
<td>When a record is copied, the default value of a component is copied rather than its current value</td>
</tr>
<tr>
<td>Uppercase</td>
<td>Characters entered in a component are converted to capital letters</td>
</tr>
</tbody>
</table>
Test for Form Customizations

To determine whether your site contains form customizations, follow these steps:

1. From the Start menu on the utility server, navigate to Infor > Tools and click FormSync.
2. Select any Source configuration.
3. Select a Target configuration that points to your production forms database.
4. Click OK.
5. On the Tools menu, click Utilities.
6. On the Filter tab, select Target in the Configuration box.
7. Click Refresh.
8. View the results in the Custom Objects grid.

   Each customized form or global object is represented by a row in the grid. If the Target forms database contains no customizations, the grid is empty.

Configure a File-Comparison Utility

You must configure a file-comparison utility with FormSync before you perform a synchronization. You can configure various third-party utilities, such as

- WinDiff, available from Microsoft with the Platform SDK
- WinMerge, an Open Source differencing tool (http://winmerge.org/)
- BeyondCompare, from Scooter Software (http://www.scootersoftware.com/)

Steps for configuring a file-comparison utility:

1. From the Start menu, navigate to Infor > Tools and click FormSync.
2. Select any Source and Target configurations.
3. Click OK.
5. Type the Name of a file-comparison utility.
6. In the Exe File column,
   - Type the path and file name of the executable file for a file-comparison utility, or
   - Click in the column, click the browse button, and select an executable file.
7. To set the utility as the default, click in the Default column, then click Set.
8. Click the Close button.

Test an Upgraded Target Forms Database

Because synchronization is an extension of the customization process, you must examine and test merged customizations in the Target configuration. Merging customizations with a
new version of Infor ERP SyteLine does not guarantee that the upgraded customizations are fully functional.

In a few cases, testing is not required:

- If all customizations in the Target configuration are of the Basic type, testing is not required. Few Infor ERP SyteLine installations are in this category.
- If you removed all customizations, testing is not required.

It is recommended that you set up a test environment separate from your production environment. The test environment must be parallel to the updated production environment, with forms accessing the updated IDOs, updated application database, and other updated components of Infor ERP SyteLine. If there are few major customizations and you are confident that the customizations can be safely tested, a separate test environment may not be needed.

Plan to test:

- Customized forms in which you retained a customization in response to a synchronization prompt.
- Forms that you created, including copies of vendor-level versions of forms saved under a new name. Synchronization does not update forms or global objects whose names are not names of vendor-level versions.
- Forms that use a customized global object that you retained in response to a synchronization prompt.

Consider dependencies within a form and within the system. An upgrade can modify:

- An IDO or other resource on which the customized object is dependent
- A vendor-level version of a form or global object on which the customized object is dependent
- A vendor-level version of a form or global object that depends on the vendor-level version of the customized object

Effects of such changes are not transparent, and they have to be considered in your test plan.

When there is a change in component type (for example, from radio button to toolbar button), you may have to adjust the size and position of the component.
Index

Symbols
,.NET Web Service Test Utility 12

A
Administrative Client 60
Configure 67
Install 65
Analyzer Client 60
Installing 120
Testing connection 93, 123
Troubleshooting 93, 123
ANSI nulls 15
ANSI padding 15
ANSI warning 15
App Metadata Sync 12
App Metadata Transport 12
Arithmetic abort 15

B
Background Processor 55

C
Check-Constraint Program 154, 178
Click Once Client 60
custom URL for WinStudio utilities 11
concat null yields null 15
Configuration Manager 12
Connection Timeout Errors 128
Conversion Steps (Multi-Site) 175
Conversion Steps (Single Site) 151
Copy User Tables 12

D
Data Collection
  Final Setup 54
  Run Test Transactions 56
Data Collection Client 13
Data Collection Parameters 54
Database
  Unload 156, 179
Database Server
  Configure 18
  Install 16
DC Background 12
DC Client Directory
  Set Up 54
DC File Server 13

E
End User Client 60
Configure 63
Install 60
ERDB Databases
  Creating 77
  Starting 77

F
Foreign-Key Conflicts
  Resolving 168, 204
Foreign-Key Validation Program 154, 177
FormControl 13
FormSync 13

I
IDO Runtime Development Server 13
Infor Tools 11

L
Log Monitor 13

M
Memory
  Fine-tuning the allocation 97, 127
MG_Help.xml 11

N
Null Validation Program 154, 178
Numeric Overstuffing Program 153, 177
numeric round abort 15

O
Objects database
  upgrade 135
ObjectStudio 13
ol_schema file 96, 126
Online Help 11
Out-Of-Range Date-Validation Program 155, 178

P
Planning Parameters 92, 122
Planning Server
  Install 75
  Set Up 75
Port Number, specifying for database 78
Printers, defining 58

Q
Quoted identifier 15

R
Recommended Hardware 9
Recommended Machines 10
Recommended Setup 9
Replication Tool 13

S
Server Port, specifying for database 78
Service Configuration Manager 13
Sizing utility, for ERDB 79
String Overstuffing Detection Program 151, 175
T
Table Utility 13

U
Uninstalling SyteLine 221
Unload Database 156, 179
User Extended Tables 150, 181
Utility Server
  Configure 28

W
WinStudio utilities 11

X
xact abort 15