LibSync Installation Guide

Version 3.5.0

Oracle Part Number: E73442-01

EDAConnect-LibSync Version: 3.5.0
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Preface

EDAConnect Installation Guide Overview

This manual provides step-by-step instructions for installing EDAConnect Library-Sync and EDAConnect Designer. The manual is organized into the following chapters:

- **Chapter 1**: EDAConnect Overview — Describes EDAConnect components and the system architecture of a typical EDAConnect installation
- **Chapter 2**: LibSync Installation Requirements — Lists specific hardware and software requirements for EDAConnect LibSync installation.
- **Chapter 3**: LibSync Installation Procedure — Provides LibSync-specific instructions for installation and testing.

Font Conventions

In this guide, the following font conventions are used:

- Links, buttons, menus, and icons that are clicked appear in **Bold** Face Type**.**
- Items to select in drop-down menus or navigator trees are **bold** with "→" between entries.
- Window and field names are in Initial Capitals.
- Cross references to sections and other chapters appear as underlined text.
- References to other Perception Software documentation appear in *italicized text.*
- Information to be provided or entered by the user appear in *<italicized text>* between angle brackets.

Perception Software Technical Support

If you encounter installation issues and you require technical support assistance, you may contact us by logging to your customer account at www.perceptionsoftware.com and clicking the **Submit Issue** button in the navigation panel. Or, to speak to a Customer Support representative directly, dial: 888-828-1444 x118.

EDAConnect Overview

Introduction

EDAConnect is an application framework that supports multiple ECAD/EDA tool to PLM system connectivity. EDAConnect consists of the following components:

- An application framework providing core functionality
- Plug-ins that extend the framework for specific engineering to PLM tasks
- ECAD drivers that provide connectivity to specific ECAD tools

There are two plug-ins for EDAConnect: LibSync and Designer. These are described below.

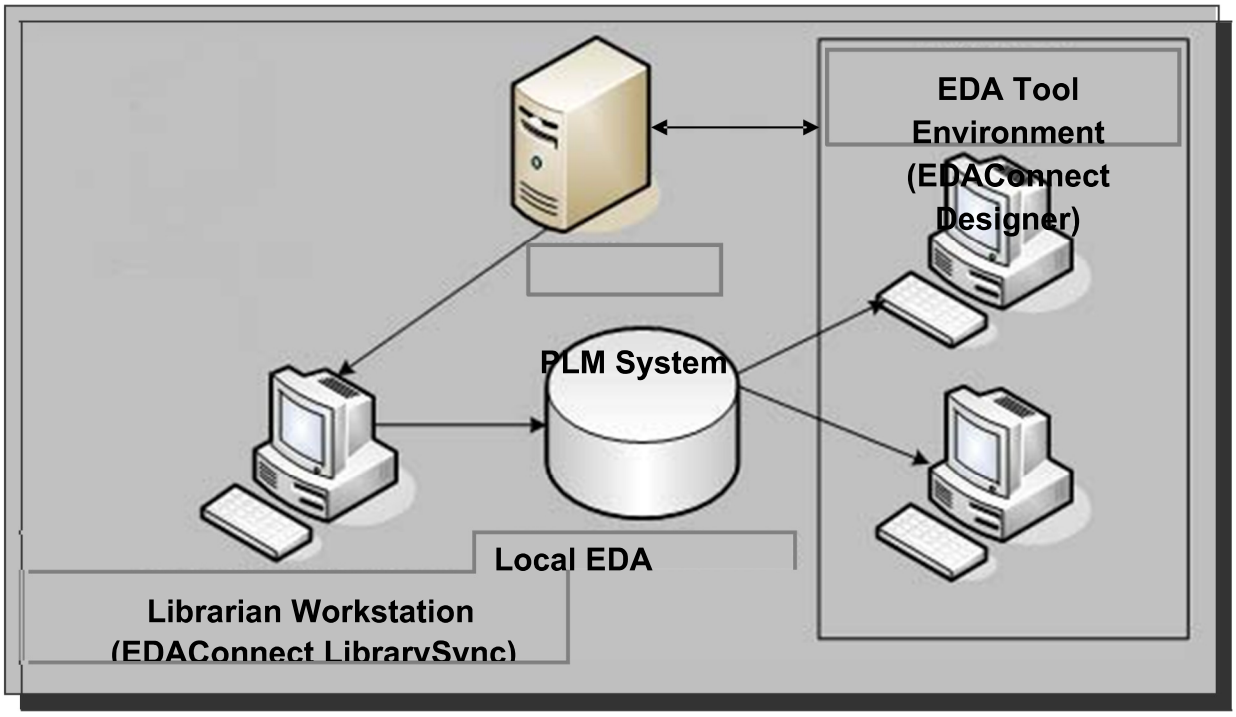
LibSync

EDAConnect LibSync is an application consisting of the EDAConnect application framework and the LibSync plug-ins. LibSync extracts critical PLM attributes and makes them available to EDA tools. This application is typically installed and run by the librarians within the engineering organization.

LibSync is a desktop application (client-side only) that connects to the PLM infrastructure and manages a separate database to which the EDA tools connect. This database is referred to as the local EDA database. Since the EDA tools can connect to a database populated with attribute data, LibSync requires no additional software for the engineering community. This data is kept current by LibSync through a synchronization schedule configured by the librarian.

Installation Architecture

The following diagram shows the system architecture for a typical EDAConnect installation. Each component of this architecture is described below.



PLM System

EDAConnect Designer and LibSync are client applications to the PLM infrastructure. Designer and LibSync communicate with the PLM system through the PLM system's API. Designer uses EDA-specific drivers to extract BOM information from ECAD projects and allows the user to compare that information against a previously existing BOM and to publish new BOMs and Engineering Change Orders to the PLM system. LibSync reads part attribute data such as lifecycle phase, lead time, and RoHS compliance and stores that information in the Local EDA Database which can then be read both EDA tools.

Local EDA Database

The local EDA database stores the extracted attributes from the PLM system by EDAConnect LibSync which manages the table structure in the database to be consistent with what ECAD tools require. The connection to the local database is made via the ODBC standard. The database is not required to be physically local to the EDA environment, but generally must be on a high performance LAN.

Librarian Workstation

The librarian workstation is the machine utilized by the librarian. The librarian workstation is required to have an EDAConnect LibSync application installed for both configuring and executing the automated library synchronization. This application allows the librarian to configure the list of items and attributes that are written to the local EDA database.

EDA Tool Environment

EDAConnect Designer is installed on the workstations in the EDA tool environment which consists of the EDA tool workstations and associated software. Designer uses EDA-specific drivers to extract BOM information and design files from ECAD projects. The user may then use Designer to check-in design files to the PLM system, compare BOM information against a previously existing BOM in the PLM system, and to publish new BOMs and Engineering Change Orders as required.

LibSync reads part attribute data such as lifecycle phase, lead time, and RoHS compliance and stores that information in the local EDA database. A subset of EDA tools (generally, schematic capture) can then access to the local EDA database to facilitate part selection.

EDAConnect LibSync Logs

EDAConnect applications create the following logs:

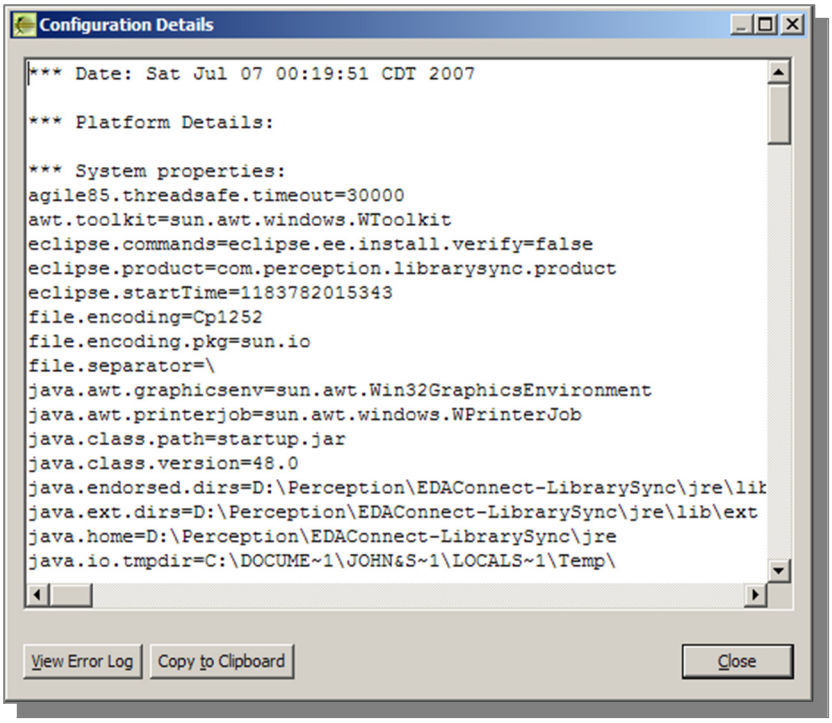
- Configuration Details Log
- Eclipse Error Log
- Perception Log

Configuration Details Log

The Configuration Log has the following characteristics:

- Logs detailed information regarding Eclipse and Java settings including:
    - System Properties
    - Plug-in Registry
    - User Preferences

- Is accessible through **Help→About EDAConnect…→Configuration Details**



Eclipse Error Log

The Eclipse Error Log has the following characteristics:

- Logs Eclipse framework errors and untrapped application exceptions
- Is accessible through **Help→About EDAConnect…→Configuration Details→View Error Log**

> **NOTE**: Typically, this information is not required when reporting a problem and can be ignored.

Perception Log

The Perception log has the following characteristics:

- Logs Java transactions, error messages, and all trapped exceptions
- Logs all Console messages and library synchronization information

Log pathname is:

<install_path>\EDAConnect-LibSync\logs\perception.log

> **NOTE**: The **perception.log** logging level for LibSync scripts can be set via the **scripts.logging.level** property in the **config.ini** file.

LibSync Installation Requirements

PLM Platform Requirements

Hardware Requirements

EDAConnect LibSync is designed to support the Agile infrastructure. Additional hardware is not required to support EDAConnect LibSync.

PLM System Requirements

Specific licensing requirements are determined by the PLM version being utilized and the purchased EDAConnect PLM driver.

EDAConnect LibSync version 3.5.0 supports Agile 9.3.x – 9.3.5

ECAD Server Platform Requirements

Hardware Requirements

The minimum hardware requirements for EDAConnect LibSync are:

- RAM: 512MB
- Free Disk: 100MB

Workstation OS Requirements

- RedHat Linux (RHEL) 6.6 - 64bit
- Windows Server 2008 - 64bit

Supported ECAD Tools

ECAD tool support is dependent on the ECAD tools that support a Part Selection database.The following table lists the tools supported.

Supported ECAD Tools
Orcad Capture CIS
Mentor DxDatabook
Altium Database Library
Concept PTF File

Local Database Requirements

EDAConnect LibSync populates a database to which the EDA tools connect. This database may be any of the following:

- Microsoft Access 2003 with Mircosoft ODBC Driver 4.00.6304.00
- MySQL 5.0 with MySQL ODBC Driver 3.51.12.00
- Oracle 10g with Oracle ODBC Driver 10.02.00.01

Other versions of these databases and ODBC connectors should be valid, but EDAC is only validated against those listed. There are known incompatibilities using the Oracle ODBC driver with Oracle 8i.

International Character Sets

The use of international character sets is not fully supported in LibSync. For example, non-English characters in PLM class names results in local database table names containing non-English characters which may cause synchronization to fail.

JRE Requirements

Libsync requires access to a Java Runtime Environment. Libsync supports both JRE 1.6 and 1.7. Both are available within the download file. The version you should install is based on the version of Agile PLM you are integrating with.

Librarian Workstation Requirements

To support background synchronization, the librarian must configure a workstation that is available 24x7. This machine need not be a standalone dedicated server; however, if this machine is not operational and connected to the network, then library synchronization will not occur. The workstation must meet the minimum EDAConnect hardware requirements.

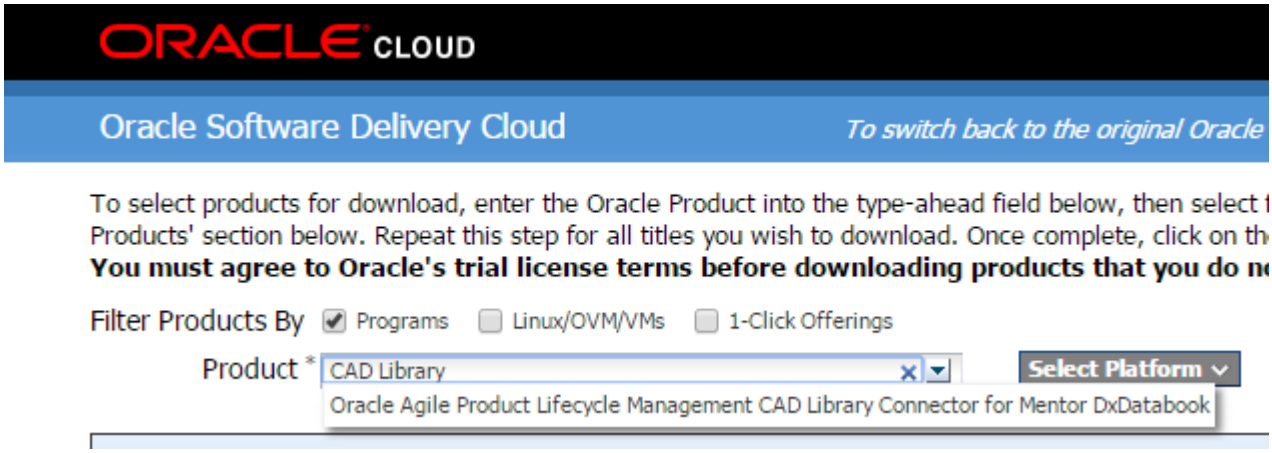
CAD Library Connector Installation

Software Distribution Structure

EDAConnect Libsync is server based application that is configured by an administrator and is run as a service.

EDAConnect Libsync software is available from the Oracle Software Delivery Cloud.

You can enter the keyword CAD Library to location the product.



Select the appropriate Platform and you will be presented with your Products for download.

Click **Continue** to see the Available Releases for the ECAD Connector. Check all download files checkboxes and click **Continue**.

Once you have agreed to the license terms you will be presented with the File Download form, download all zip files.

Installation Instructions

Libsync

► To assemble an installation folder for EDAConnect LibSync

1. Create an installation folder for your EDAConnect Software, e.g. c:\Perception.
2. Extract the contents of the **libsync-3.5-<platform>.zip** file to your EDAConnect installation folder. This should create an EDAConnect-Libsync folder (e.g. C:\Perception\EDAConnect-Libsync)
3. If you are using **Agile 9.3.3, 9.3.4, or 9.3.5** extract the contents of EDAConnect-Dashboard\jre_zips**jre7u51**.zip to your EDAConnect-Dashboard folder. This should create an EDAConnect-Libsync/jre folder. After this is completed you can delete the EDAConnect-Dashboard\jre_zips folder.
4. If you are using **Agile 9.3.0, 9.3.1 or 9.3.2** extract the contents of EDAConnect-Dashboard\jre_zips**jre6u26.zip** to your EDAConnect-Dashboard folder. This should create an EDAConnect-Libsync/jre folder. After this is completed you can delete the EDAConnect-Dashboard\jre_zips folder.
5. If you are running on **Linux** extract the contents of the appropriate EDAConnect-Libsync\linux_versions\ linux.gtk*.zip file into your EDAConnect-Libsync folder.
6. If you are integrating with **ConceptHDL** copy the file **com.perception.drivers.database.ptf_1.6.0.201604110342.jar** from the EDAConnect-Libsync\storage_driver_jars folder to EDAConnect-Libsync\product\plugins.
7. If you are integrating with Orcad CIS, DxDatabook or Altium Database Libraries copy the file **com.perception.drivers.database.odbc_1.8.0.201604110342.jar** from the EDAConnect-Libsync\storage_driver_jars folder to EDAConnect-Libsync\product\plugins.

► Launching LibSync

Navigate to:

<*install_path*>\Perception\EDAConnect-LibSync\install

NOTE: If you are setting up automated library synchronization, it is required that the machine executing the synchronization be available and online during the scheduled synchronization slots.

Configuring EDAConnect LibSync

Configuring Java Heap Size

LibSync is pre-configured to use a Java maximum heap size of 512 MB. Depending on the size of the part classes being synchronized, you may encounter Java "Out of memory" errors. Should this occur, you may increase the maximum heap size by editing the MAX_HEAP_SIZE parameter in:

<*install_path*>\EDAConnect-LibSync\EDAConnect-LibSync.bat

Configuring LibSync Properties (config.ini)

The following table describes specific properties that should be configured during the installation of LibSync. These properties are located in:

<*install_path*>\ EDAConnect-LibSync\product\configuration\config.ini

LibSync Configuration File (config.ini) Properties		
Property Name	**Description**	**Example Values**
PLM Server Host Parameters		
plm.hosts	Specifies PLM server URLs used to populate the **PLM Server Host** drop-down list in the PLM Connection dialog.	plm.hosts= http://agileprod.mycompany.com, http://agiletest.mycompany.com

LibSync Configuration File (config.ini) Properties		
Property Name	**Description**	**Example Values**
PLM Processing Parameters		
plm.itemnumber.attribute	Identifies the PLM item number property name used by the PTF driver. Default = Title Block.Number	plm.itemnumber.attribute = Item Number
rows.per.query	Specifies the number of PLM rows to process at a time. Default = 1000	rows.per.query = 2000
EDA Local Database and PTF File Parameters		

database.date.format	Specifies the default date format to display when converting date data types to string during ODBC or PTF synchronization. Default = MM/dd/yyyy See the Date Format Table below for more information.	database.date.format = MM-dd-yy
database.money.precision	Specifies the default number of decimal places to display when converting money data types to string during ODBC or PTF synchronization. Default = -1 (no formatting)	database.money.precision = 2
database.numeric.precision	Specifies the default number of decimal places to display when converting numeric data types to string during ODBC or PTF synchronization. Default = -1 (no formatting)	database.numeric.precision = 1
odbc.source.date.format	Specifies the date format to use to parse PLM date fields. See the Date Format Table below for more information.	odbc.source.date.format = yyyy-MM-dd HH:mm:ss
string.column.length	Default field size for strings in the LibSync mapping file for the local EDA database. Default = 32	string.column.length = 64

LibSync Configuration File (config.ini) Properties		
Property Name	**Description**	**Example Values**
EDA Local Database and PTF File Parameters		
uom.logging	Specifies whether unit of measure logging is enabled (on) or disabled (off). Default = off	uom.logging = on

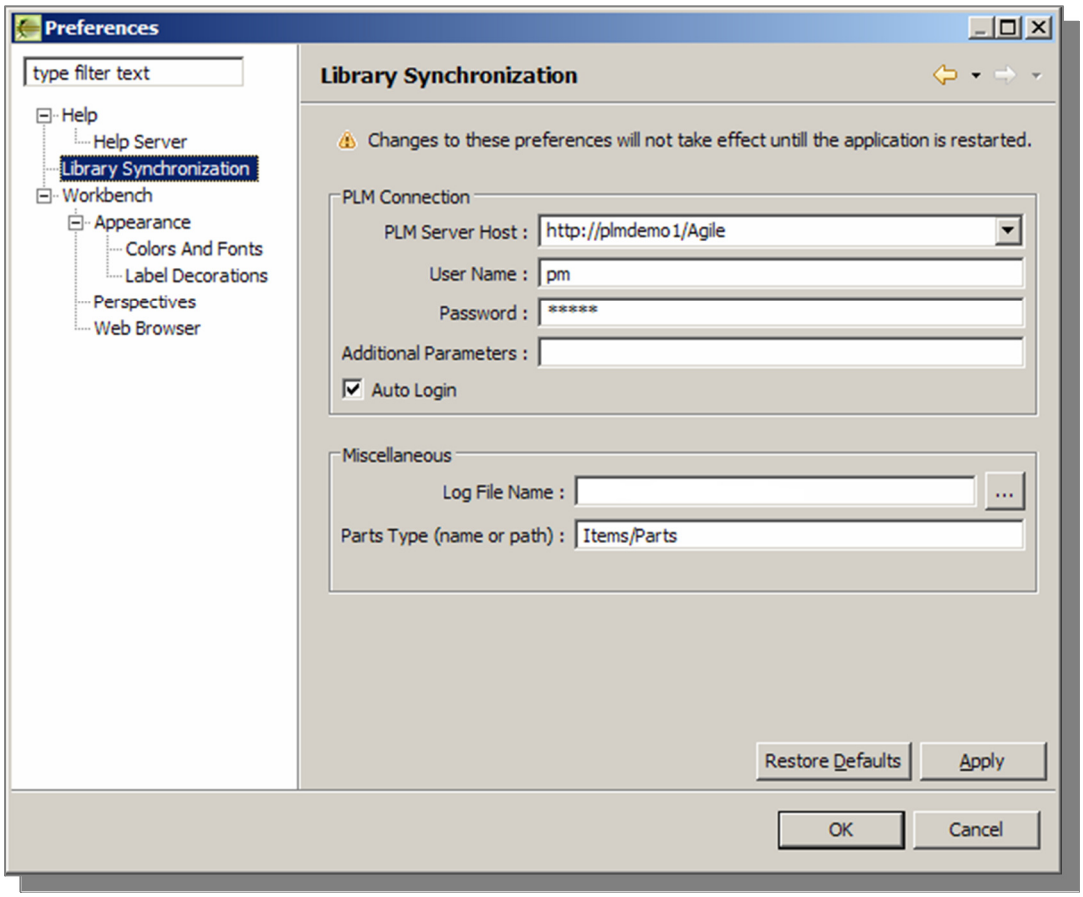
<table>
<tr><th colspan="3">LibSync Configuration File (config.ini) Properties</th></tr>
<tr><th>Property Name</th><th>Description</th><th>Example Values</th></tr>
<tr><th colspan="3">Scripting Parameters</th></tr>
<tr><td>scripts.logging.level</td><td>Specifies the logging level for scripts. Multiple levels may be specified using a comma-delimited list.<table><tr><th>Value</th><th>Logs</th></tr><tr><td>err</td><td>System.err (default)</td></tr><tr><td>out</td><td>System.out, edaconnectConsole.writeMessage</td></tr><tr><td>debug</td><td>edaconnectLogger.logError</td></tr></table></td><td>scripts.logging.level = err,out</td></tr>
<tr><td>scripts.properties.file</td><td>Specifies the pathname to the scripts.properties configuration file used by various scripts.
Backslashes must be doubled: c:\\Perception\\...</td><td>scripts.properties.file = c:\\Perception\\scripts\\scripts.properties</td></tr>
</table>

Date Format Table		
Letter	**Date or Time Component**	**Example Values**
G	Era designator	AD
y	Year	1996; 96
M	Month in year	July; Jul; 07
w	Week in year	27
W	Week in month	2
D	Day in year	189
d	Day in month	10
F	Day of week in month	2
E	Day in week	Tuesday; Tue
a	am/pm marker	PM
H	Hour in day (0-23)	0
k	Hour in day (1-24)	24
K	Hour in am/pm (0-11)	0
h	Hour in am/pm (1-12)	12
m	Minute in hour	30
s	Second in minute	55
S	Millisecond	978
z	Time zone	Pacific Standard Time; PST; GMT-08:00
Z	Time zone	-800

Setting the PLM Connection Preferences

► To set PLM connection preferences for LibSync

1. Select Window→Preferences from the Window menu on LibSync's taskbar.
2. Select Library Synchronization from the Preferences navigation tree. The Library Synchronization dialog box is displayed.



3. Select the "PLM Server Host."

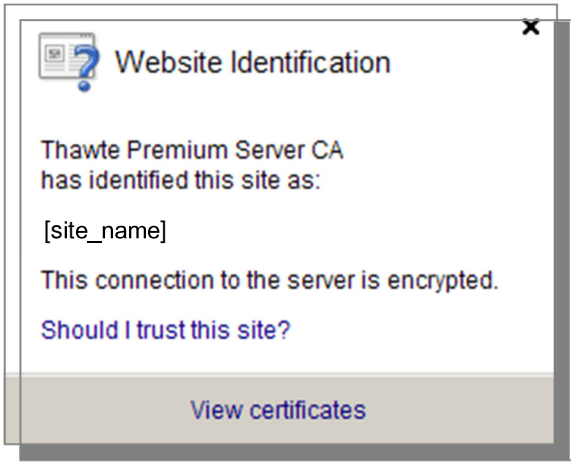
   A. Choose the desired PLM server URL from the "PLM Server Host" drop-down menu. If the desired server URL is not included in the list, enter the URL manually.

      NOTE: The PLM system administrator will need to supply the exact URL, but it is typically of the form: http://plmserver.domain/VirtualDirectory.

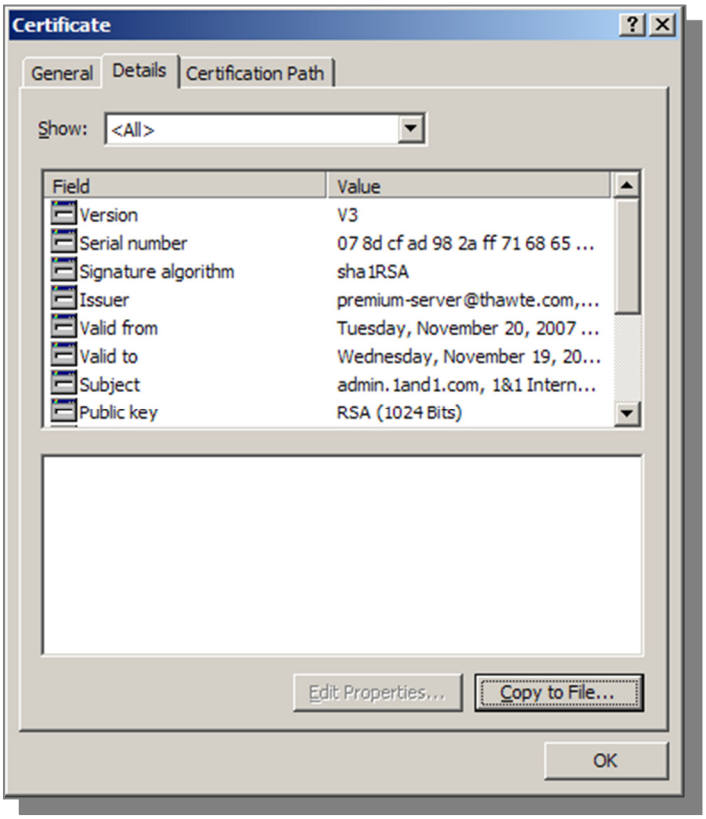
      If the URL does not use HTTPS protocol, proceed to step 4. If the URL does use HTTPS protocol, it will be necessary to add the PLM server's CA certificate key to LibSync's JRE trusted keystore in order to access the PLM server.

   B. Save the PLM server's root CA certificate key to the local disk:

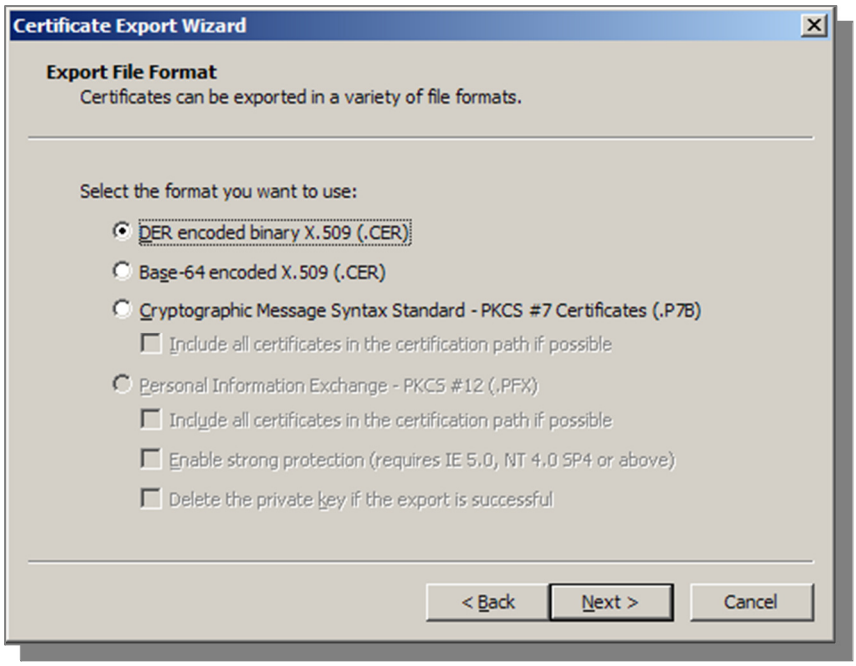
      - Open the PLM URL with IE 6 or IE 7.
      - Click **View→Security Report** or the lock icon on the status bar or address bar to display the Security Report.



- Click **View certificates**.
- Click the Certification Path tab and select the root certificate by double-clicking on it.
- Select the **Details** tab and click on the **Copy to File…** button.



- In the Certificate Export Wizard “Welcome” dialog, click the **Next** button.
- In the “Export File Format” dialog, select “DER encoded binary” and click the **Next** button.



- In the “File to Export” dialog, specify a known location on the local disk such as:

  <install_path>\EDAConnect-LibSync\userware*<my_certificate.cer>*

  and click the **Next** button.
- In the “Completing the Certificate Export Wizard” dialog, click the **Finish** button.
- Click the **OK** buttons to close the windows associated with certificate export.

C. Register the certificate key with LibSync’s JRE:

- In Windows, open a command window.
- Navigate to the bin directory for LibSync’s JRE:

  cd *<install_path>*\EDAConnect-LibSync\jre\bin

- Use the following command to register the certificate key:

  keytool -import -v -file *<install_path>*\EDAConnect-LibSync\userware*<my_certificate.cer>* -keystore *<install_path>*\EDAConnect-LibSync\jre\lib\security\cacerts -storepass changeit

4. Enter the appropriate “User Name” and “Password” for the PLM server.

NOTE: The password is encrypted for security.

5. If your PLM system requires additional parameters such as port number assignments, enter the information in the “Additional Parameters” field.
6. Check the **Auto Login** checkbox to enable auto-login. Uncheck the **Auto Login** checkbox to disable auto-login.
7. You may omit the “Log File Name” since LibSync automatically logs all transaction and exception information to the perception.log file.
8. Enter the parts type in the “Parts Type” field.

   NOTE: “Parts Type” specifies the PLM objects that may be utilized for attribute mapping. A typical value for this field is “Items/Parts” or “Parts Class”. If you are uncertain regarding the appropriate value to enter for “Parts Type”, please ask the PLM administrator.

Configuring the Local Database Instance

Based on mappings defined by the librarian, EDAConnect LibSync synchronizes PLM mastered metadata with the ECAD tools. This is accomplished by populating a simple database from which the ECAD tools read. EDAConnect will fully manage this database, creating new tables and adding new rows and columns as required. Due to this cache database, ECAD tools receive high performance access to accurate PLM metadata.

NOTE: LibSync purges old data from this database during synchronization. Therefore, this database should be regarded as read-only.

Recommendations

When setting up EDAConnect LibSync, it is important to plan the location and type of database required. EDAConnect supports the ODBC standard. This allows EDAConnect to communicate with many standard database technologies without the need to modify the application.

Database Technology

The choice of database technology depends on the following factors:

- Size of the ECAD Library (number of unique part numbers and attributes)
- Physical location and number of designers
- Network access speed
- Number of users

Size of the ECAD Library

The size of the library determines how much data is managed by the database. Each unique part number basically adds a row into the database, while each unique attribute adds a column. Generally speaking, the number of unique part numbers that engineers may choose from is determined by the PLM system and the ECAD library, and generally is not changeable. There is flexibility in selecting the number of attributes that are of high value to engineering.

A part library with 5,000 - 10,000 unique part numbers and 5 - 10 attributes is small and may be suitable for a simple database such as Microsoft Access. Larger part libraries really should consider a full RDBMS instance such as MySQL or Oracle. It is strongly recommended that one use the qualified ODBC driver for the chosen database application (see Local Database Requirements on page 14).

Physical Location

The location of the database generally impacts the performance of choosing new parts or executing schematic verifications. The performance is greatly affected by the IT infrastructure. It is advisable that the attribute cache reside within the confines of the LAN, ideally at the same physical site as the designers. The most important criterion generally is the response time the designers experience while selecting parts. The synchronization of the library is done offline and thus does not impact the day-to-day activities of the design engineer.

Network Access Speed

The amount of data utilized for the day-to-day efforts of the engineers is not very high. Hence, network throughput is not a critical issue; however, network latency is. Each part requires a roundtrip communication with the database server. A high latency network will make such roundtrips slow. This is especially true when doing full sheet part verification in the ECAD tool. Generally speaking, most LAN implementations are of sufficient performance, and any issues are likely to arise in WAN situations or in remote sites with VPN-type access.

Number of Users

The number of users may dictate the database technology, but the frequency of access by each user is critical. In a large design group with a large ECAD library, it is possible that several users are searching for parts concurrently, while a number of other users are executing full schematic verifications. This causes a high number of concurrent database transactions. Technologies such as Microsoft Access are not designed to handle this, and should be upgraded to a full RDBMS. A small design team of say 5 engineers will have much lower concurrent access to the database, in which case Microsoft Access would suffice.

Configuring Microsoft Access

The Local EDA Database must be set up on a networked server and a Data Source Name (DSN) must be set up for each computer that is to communicate with the database. Please see Appendix A – Configuring an ODBC Database on page 37 for the procedure to create a new database and set up a Data Source Name. Also, see the documentation for your database application and ODBC driver for more specific configuration information.

The following section describes how to set up a simple Microsoft Access database. It assumes Microsoft Access is available on a shared workstation. These instructions assume MS Access 2003, but the procedure is similar for other versions.

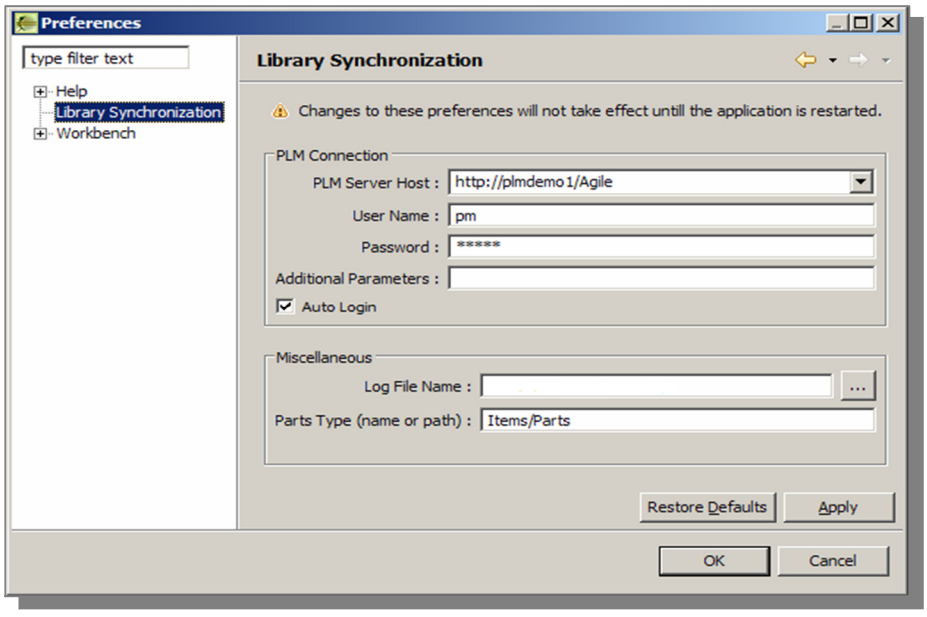
Testing the LibSync Environment

Use the following procedure to verify that EDAConnect LibSync has correct access to PLM and to the local database. This procedure assumes that:

- Java Runtime is installed and operational.
- EDAConnect Application is installed and available to current workstation.
- Agile is running with appropriate SDK or API runtime licenses available.
- You have a valid Agile account and permissions.
- ODBC database is available.

► **To test proper connectivity**

1. Launch EDAConnect-LibSync.
2. Set up Library Synchronization preferences:
   A. Select **Window→Preferences…→Library Synchronization**.



A. Choose the desired PLM server URL from the “PLM Server Host” drop-down menu. If the desired server URL is not included in the list, enter the URL manually.

B. Enter the appropriate “User Name” and “Password” for the PLM server.

C. Check the “Auto Login” checkbox to have LibSync automatically login to PLM on start up.

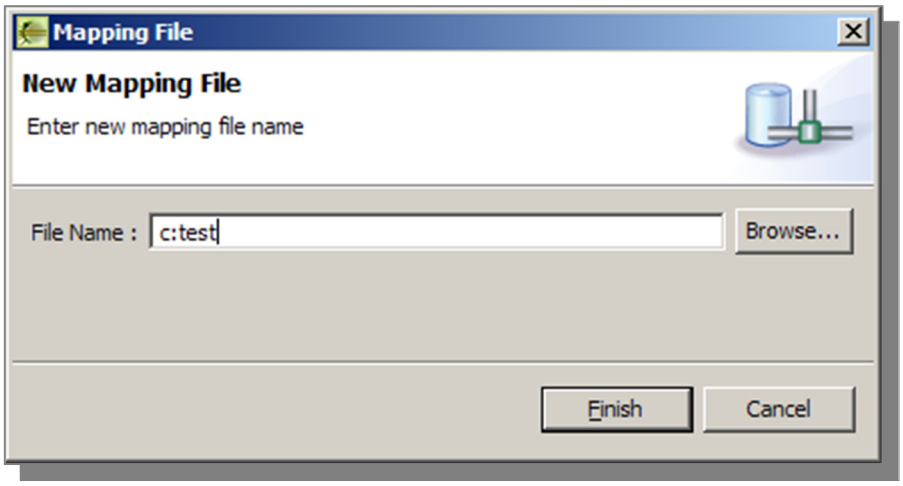
D. Enter the full pathname for a LibSync log file in the “Log File Name” field. E. Set “Parts Type” to Items/Parts or another value as appropriate.

F. Click **Apply** and then click **OK**. The dialog will close.

3. Create a test mapping file:

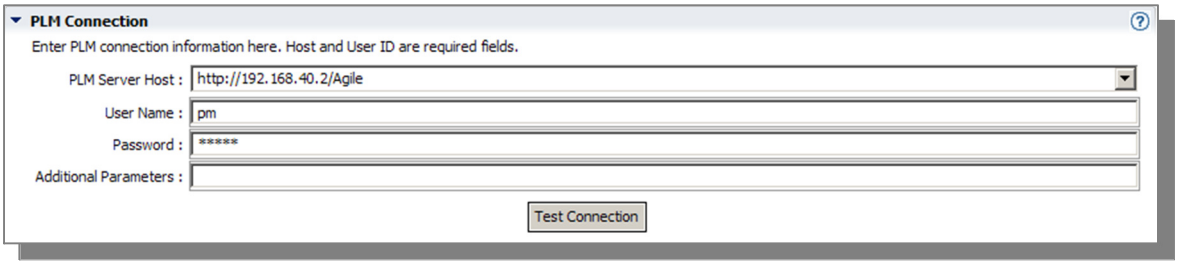
A. In the main application window, select **File→New→Mapping File**.

B. Enter a filename “c:\test” and click the **Finish** button.



4. Set up the PLM Connection:

A. Enter your *<PLM server>*, *<username>* and *<password>* in the appropriate fields in the PLM Connection group box.



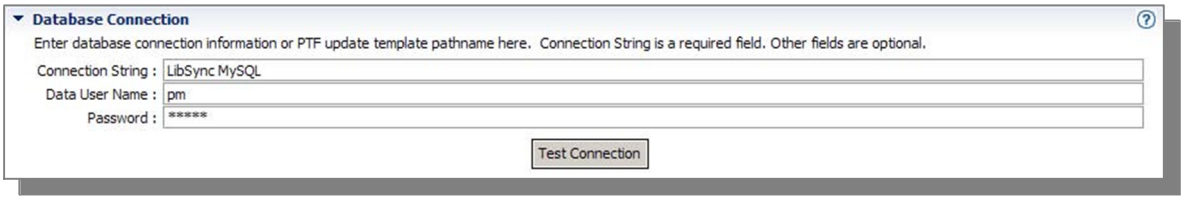
B. Click the **Test Connection** button in the PLM Connection group box.

The Console window should display a “PLM connection successful” message.

5. Set up the Database Connection:

A. Enter the DSN name for the Local EDA Database or the pathname to the PTF Update Template in the “Connection String” field.

B. If you opted to password protect the DSN, enter your database credentials.



C. Click the **Test Connection** button in the Database Connection group box.

The Console window should display a “Database connection successful” message.

If both the PLM Connection and Database Connection tests reported a successful, connection you have validated a successful installation of EDAConnect LibSync.

> **NOTE:** If you desire e-mail notification when synchronization has been completed, you must edit the SMTP connection information under the ODBC settings. This will require valid SMPT server and connection information.

Troubleshooting the LibSync Environment

If either the PLM connection test or the database connection test fails, then troubleshoot the connection using the steps below:

► **To troubleshoot PLM connection issues**

- Verify network connectivity.
- Verify PLM Server Host URL including protocol, host name and path.
- Verify your PLM server is accessible from this workstation by logging into the PLM web portal.
- Verify your PLM credentials (username/password) are correctly entered. Verify that you have a valid SDK runtime license.

► **To troubleshoot database connection issues**

- Verify the MDB file exists by opening the file in Microsoft Access.
- Verify your database credentials (username/password) are correctly entered.
- Verify that no one else has the database opened exclusively.

Installing LibSync as a Windows Service

LibSync provides a command line interface for synchronization. Once a LibSync installation is configured and working, it may be desirable to install the LibSync as a service if ODBC or PTF synchronizations are to be performed on a regular schedule. That way, if the LibSync server is rebooted, then LibSync will restart automatically.

► **To install LibSync as a Windows Service**

1. Set up the **config_service.ini** file:
   A. Navigate to the LibSync configuration directory:
      <install_path>\EDAConnect-LibSync\product\configuration
   B. Open **config_service.ini** in a text editor.
   C. Set the desired values for the following properties:
      i. libsync.home
      ii. libsync.psm_files
      iii. libsync.default_logfile

NOTE: Each time the **config_service.ini** file or a template file referenced by the **config_service.ini** is edited, the LibSync CLI tool service will need to be stopped and restarted via Windows Services in order for the new settings to take effect.

2. Install the LibSync CLI tool service:

   A. Navigate to the LibSync installation directory:

      <install_path>\EDAConnect-LibSync

   B. Double-click on LibSyncServiceInstall.bat to install the LibSync service.

   C. Launch Windows Services to configure the LibSync service:

      Start→Settings→Control Panel→Administrative Tools→Services

   D. Locate EDAConnect-LibSync Service in the Services listing and double-click on the service name to open the EDAConnect-LibSync Service Properties dialog.

   E. Set “Startup type” to “Automatic” and click the OK button.

   F. Right-click on EDAConnect-LibSync Service and select Start to Start the service.

   NOTE: The DSN referenced by the LibSync mapping file *must* be a system level DSN in order to work with the LibSync service.

   NOTE: Once the service is started, a libsyncservice.log file is created in the EDAConnect-LibSync\product directory.

When installing a new version of LibSync, it may be desirable to use a different pathname for the installation so as not to overwrite the existing installation. This not only provides the ability to easily revert back to the prior version, if necessary, but also makes it easy to transfer the config.ini fle from the old installation to the new installation. For example, the installation paths might be:

Old Installation: New Installation:	c:\Perception\EDAConnect-LibSync-140 c:\Percpetion\EDAConnect-LibSync-142

► **To change the pathname for LibSync service**

1. In Windows, open a command window on the LibSync server. 2. Enter the following commands:

sc stop LibSyncService

sc config LibSyncService binPath="*<install_path>*\product\ LibSyncService.exe"
sc start LibSyncService

To remove the LibSync service altogether, use the following procedure.

► **To delete LibSync as a Windows Service**

1. In Windows, open a command window on the LibSync server. 2. Enter the following commands:

sc stop LibSyncService sc delete LibSyncService

Appendix A – Configuring an ODBC Database

This procedure describes how to set up an ODBC database and configure the Data Source Name (DSN). The DSN tells Windows how to communicate with a database. A DSN must be set up for every computer that is to communicate with a given database. This includes the librarian's and the designer's workstations.

NOTE: Microsoft Access is used as the example database. However, the procedure is similar for other database applications.

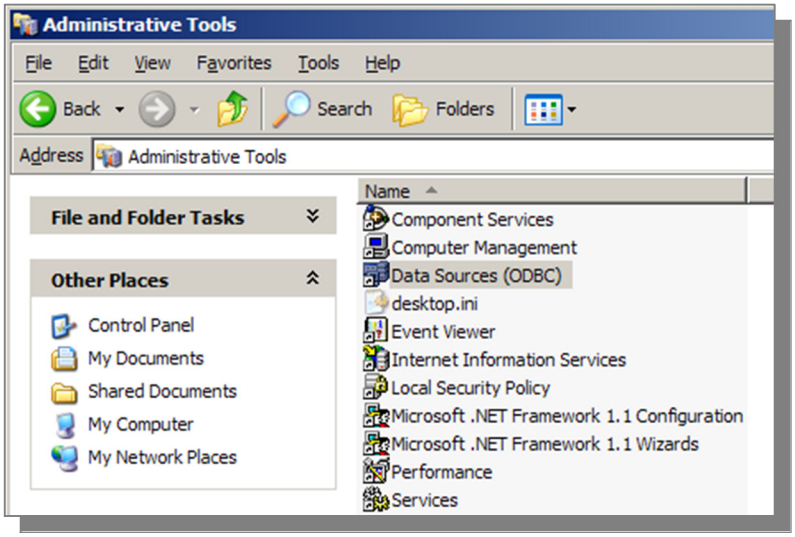
► **To configure an ODBC database**

1. Set up a DSN (Data Source Name)

A. In Windows, go to **Start→Settings→Control Panel** to launch the Control Panel

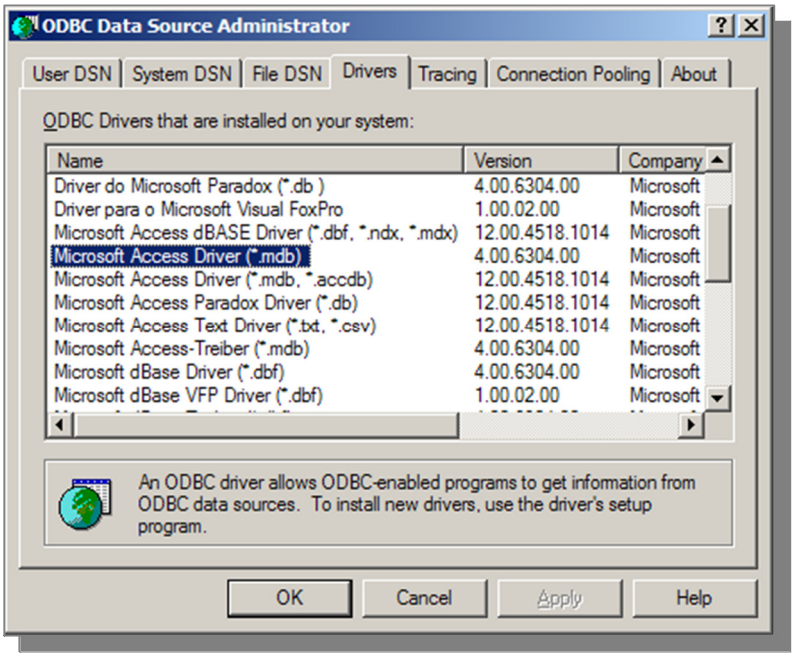
B. Select **Administrative Tools**.

2. Select Data Sources (ODBC).



The ODBC Data Source Administrator dialog box is displayed.

3. Select the **Drivers** tab.



The **Drivers** tab lists any ODBC Data Sources already present on your system. You may refer to any one of these by name in the Database Connection table on the **General** tab of a PSM file.

NOTE: Be careful to select the correct name or you may corrupt an existing database.

4. Verify the driver you need is installed and is the correct version level per the following table:

ODBC Driver Requirements	
Database	**ODBC Driver**
Microsoft Access 2003	Mircosoft ODBC Driver 4.00.6304.00
MySQL 5.0	MySQL ODBC Driver 3.51.12.00
Oracle 10g	Oracle ODBC Driver 10.02.00.01
SQL Server 2005	SQL_Server Driver 6.00.6000.16386

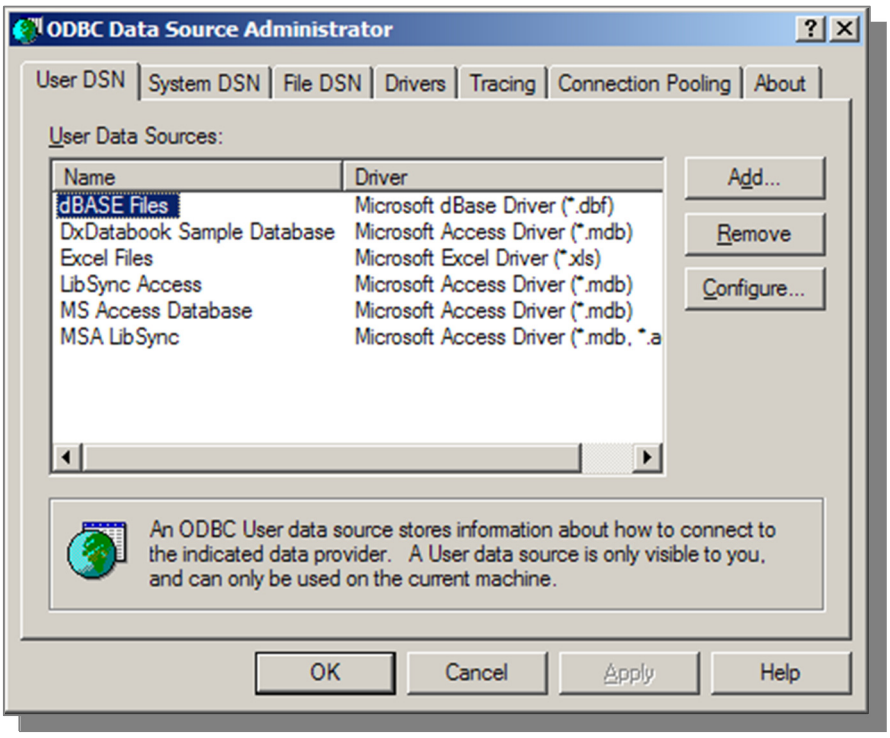
NOTE: Other versions of these databases and ODBC connectors should be valid, but EDAConnect is only validated against those listed. There are known incompatibilities using the Oracle ODBC driver with Oracle 8i.

5. If the required ODBC driver is not present, you will need to install it.

   NOTE: Consult your database user documentation to find out where to obtain the ODBC driver and how to install it.

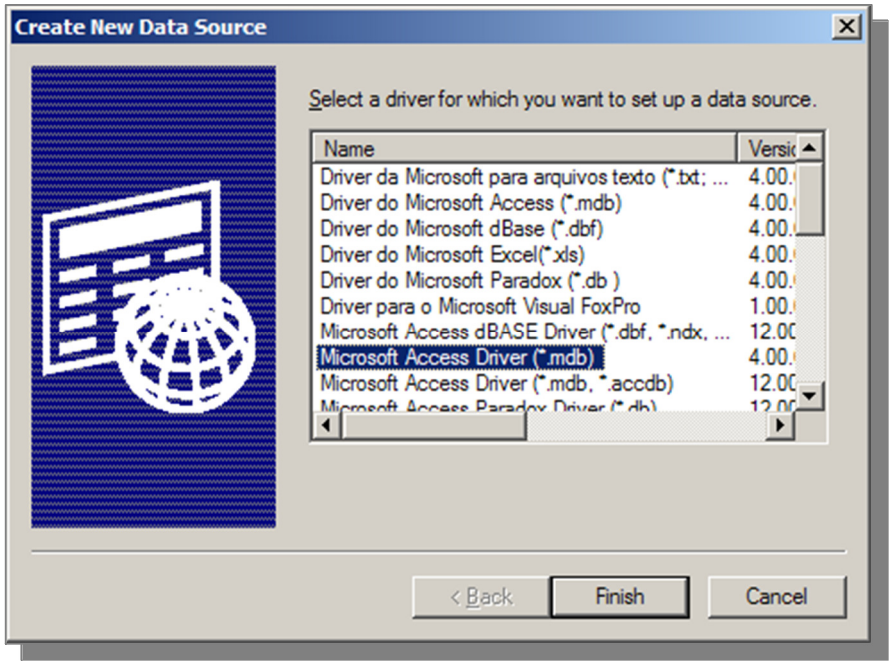
6. Create a new Data Source:

   A. If LibSync is not configured as a service, select the **User DSN**. Otherwise, select the **System DSN** tab.



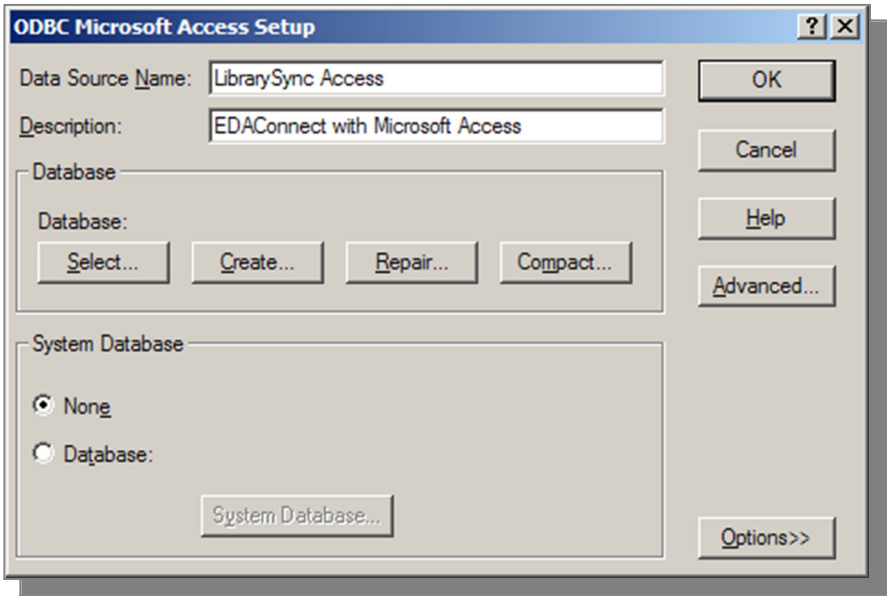
   B. Click the **Add** button to create a new Data Source.

C. Select the appropriate Data Source (in this example, Microsoft Access) and click the **Finish** button.



The ODBC Setup dialog box is displayed.

NOTE: The ODBC Setup dialog is different for each database type.



NOTE: You may encounter problems with data types if you're using an Oracle Data Source and Oracle's NLS_LANG variable is not set properly. NLS_LANG should be set to:

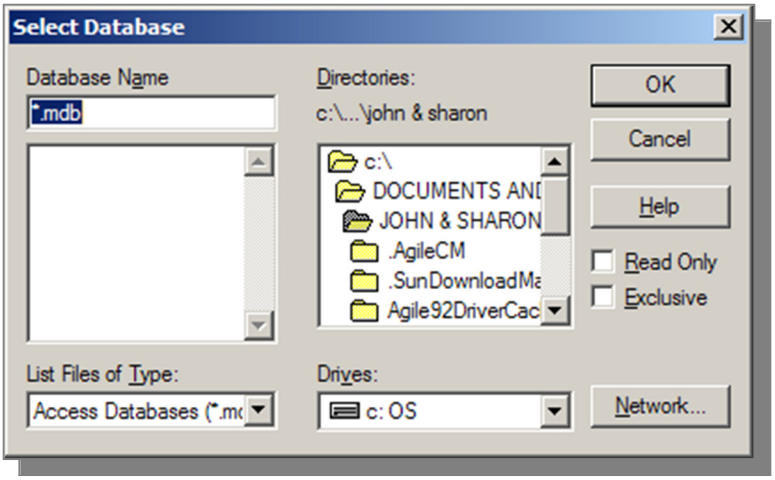
AMERICAN_AMERICA.WE8MSWIN1252

or whatever is appropriate for your system. Please refer to your Oracle documentation for more information.

D. Enter the “Data Source Name” and “Description”.

Use this name in the “Connection String” field in the Database Connection group box on the **General** tab of the PSM file.

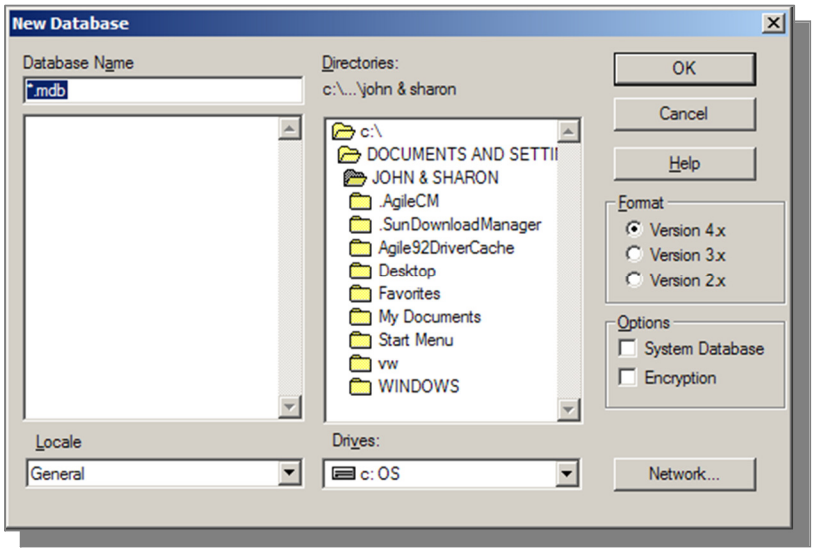
Click the **Select** button to select and existing Access database. Otherwise, go to step F.



- Select an existing Access database and click the **OK** button.
- Go to step G.

NOTE: This file should be accessible on your network by others.

E. Click the **Create** button to create a new database.



- Enter the “Database Name” for the new database.

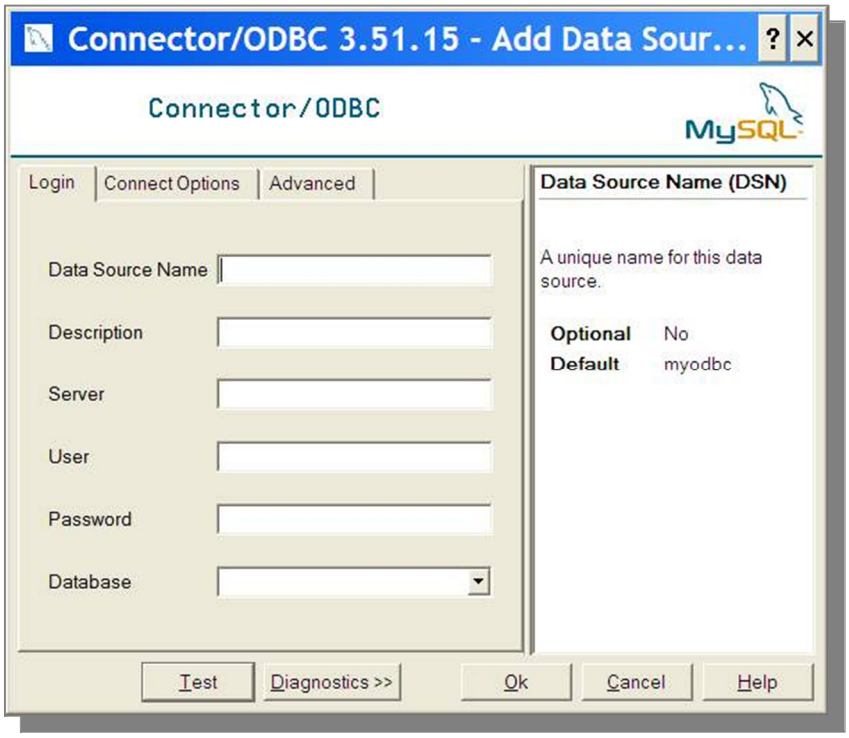
- Select the location for the new database and click the **OK** button.

  NOTE: This file should be accessible on your network by others.

F. Click the **OK** button to close the ODBC Setup dialog box.

G. Click the **OK** button to close the ODBC Data Source Administrator dialog box. H. Close the Administrative Tools dialog box.

For MySQL, the ODBC Setup dialog looks like this:



NOTE: MySQL uses authentication, so you'll need to enter the login credentials here. Also, be sure that **Pad Char to Full Length** on the **Advanced→Flags 2** tab is unchecked.

For Oracle, the ODBC Setup dialog looks like this: