DSD Business Systems

Sage 100 Enhancements

LMSQ

SQL Mirroring

Version 4.50

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SQL Mirroring User's Manual
Version 4.50

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Section A: Introduction

This manual contains a description and instructions for this DSD product. Operating instructions are included for the features added by this product to Sage 100. For instructions on using Sage 100, refer to the appropriate Sage 100 manual, or call your Sage 100 reseller. DSD Business Systems offers excellent Sage 100 support, at an hourly rate.

Web Resources

DSD web site: **http://www.dsdinc.com**

The Enhancement page contains:

> *Current Release Schedule*
> *Purchasing Information*
> *Installation Instructions*
> *Product Support*
> *Enhancement Links*

LMSQ SQL Mirroring:

http://www.dsdinc.com/enh/pages/LMSQ.htm

The product web page contains:

> *Product Description*
> *Web Links*
> *Current Product Version Table*
> *Product Installation File Download*
> *Product Manual in .pdf Format*
> *Revision History*
> *FAQ*

Support

DSD provides product support through Sage 100 resellers. Support is provided for the current version. Older versions are supported at an hourly rate. DSD's telephone number is **858-550-5900**. Fax: **858-550-4900**.

For a hard error, where the program displays an error dialog, report:

> *Error number.*
> *Program name.*
> *Line number.*
> *Program version.*

Exact sequence that caused the error, including menus and menu selections.
Other pertinent information.

If leaving a message or faxing, please include:

Your name.
Your phone number (and fax if applicable) and extension.

It is possible to be unable to duplicate a problem, because of data corruption or because we have not exactly duplicated a particular operating environment. In such circumstances, we can only continue to try to fix the problem if we can either access the system with Symantec PCAnywhere or by some other means access or duplicate the system.

SQL Mirroring Features

- **SQL Mirroring** allows the user to choose which Sage 100 Data files to be mirrored directly into a SQL Database in '**Real Time**'. This means as the records are added, updated, or removed from the native Providex Database, a live record will be mirrored to your chosen SQL Database.

- NOTE: The **SQL Mirroring** product only writes, removes, and updates the SQL Database, but doesn't read from it. Therefore, if you use another application to write to the SQL Database, those changes will NOT be reflected back into Sage 100.

Section B: Getting Started

CAUTION

- **If you reinstall or upgrade one of the Sage 100 modules listed in the following table, you must also reinstall this Enhancement.**

- Enhancements from different Sage Developers are generally not designed to work together. If installed together, problems are likely to occur.

- **Check with DSD before installing more than one Enhancement.**

Required Levels

Sage 100 Module	Module Required	Required Level
L/M	Y	4.50

Installation

1. **Back-up:** Exit all Sage 100 sessions. Back-up existing Sage 100 data.
2. **Check Levels:** Sage 100 module levels **must match** those listed above.
3. *Run Enhancement Setup Program:* Save the executable installation program (sent to you or downloaded from our website) in a convenient location on the Sage 100 server. Launch the program from Windows Explorer or by selecting Start/Run, and then browse for the file in the location you saved it. Follow on-screen instructions.
4. *Send your Sage Serial Number to your DSD Representative:* Send your Sage Serial Number to your DSD representative in order for us to send you back the encrypted keys to unlock your system. This serial number can be found in Library Master\Setup\System Configuration, Tab 3. Registration as Serial Number.
5. **Re-Start Sage 100:** Sage 100 will be updated.
6. *Unlock the Enhancement:* DSD Enhancements must be unlocked to run. When any part of the Enhancement is run for the first time, the **DSD Enhancement License Agreement and Activation** window will appear. Follow the steps shown on that window. *You can click the Help button for more detailed instructions.*

   Note: On the next page is a screenshot of the DSD Enhancement License Agreement and Activation window.

   After accepting the License Agreement, you can then select the type of unlocking that you'd prefer. The choices are File, Web, Demo and Manual Entry.

   File Unlock: After receiving your encrypted serial number key file from DSD, and placing that file in the MAS90/SOA directory, selecting this option will unlock all products keys contained in the file. This means you can unlock all enhancements at once using this option.

   Web Unlock: If the system that is running the DSD Enhancement *has web access* and you *have sent DSD your Sage Serial number*, you can unlock the Enhancement without assistance using

Web Unlock. When this option is selected, the program will attempt to download encrypted serial number key file from DSD *and then proceed to unlock all enhancements contained in the file.*

- *The Sage 100 system that is being used must have web access for this option to be effective.*
- *You can send your Sage Serial Number to your DSD Enhancements sales representative.*

Demo Unlock: If a Demo mode is available for the Enhancement you're running, you will be able to Demo unlock the product without assistance from DSD for demo purposes.

- *Creating a Demo Unlock is a good way to temporarily unlock DSD Enhancements off-hours, if you do not have web or email access. Later, you can unlock the product fully, during business hours.*

Manual Entry Unlock: If you want to unlock a single enhancement using a single encrypted key, you can select this option and enter the 64 character key you receive from DSD by copy and paste.

*Note: You can also unlock a DSD Enhancement through the **DSD Enhancement Control Panel** found on the Library Master Utilities Menu. Then, select the Enhancement with your mouse from the list of Enhancements and click the **Unlock Product** button on the right side of the window.*

7. Convert Data: After registration, the Data Conversion window will appear. Follow on-screen instructions to complete data conversion. *You can exit the conversion program without converting data. The Enhancement will not proceed, however, until data is converted. If you enter an enhanced program and data has not been converted, the conversion program will run again.*

DSD Enhancement Control Panel

Starting with version 3.61, all DSD Enhancement products include DSD's Enhancement Control Panel. The **DSD Enhancement Control Panel is accessed from the Library Master Utilities menu**.

The DSD Enhancement Control Panel is a simple to use yet powerful system to help maintain DSD Enhancements installed on a Sage 100 system. To use it, select an Enhancement product from the list on the window and then click the button, on the right side of the window, which corresponds with the desired task.

View Manual: This button will display the product manual for the selected Enhancement using Adobe Acrobat. For this to be possible, the PDF file for the corresponding manual must be in the "MAS90/PDF" folder in the Sage 100 system. If the file is not present, and the system has web access, the correct PDF file will be automatically downloaded from the DSD website, put into the "MAS90/PDF" folder and then displayed.

Check the Web for Updates: This button will check the DSD website to see what the current build is the selected Enhancement and alert the user if a later version is available. *This requires an ftp web connection on the Sage 100 system.*

Unlock Product: This will cause the DSD Enhancement License Agreement and Activation window to appear. Using this window is described on the previous page. *This button is disabled if the selected Enhancement is already unlocked.*

Unlock All Products: This will cause the DSD Enhancement All License Agreement and Activation window to appear. This window is similar to the one described on the previous page, but has only web and file as options to unlock. *This button is never disabled.*
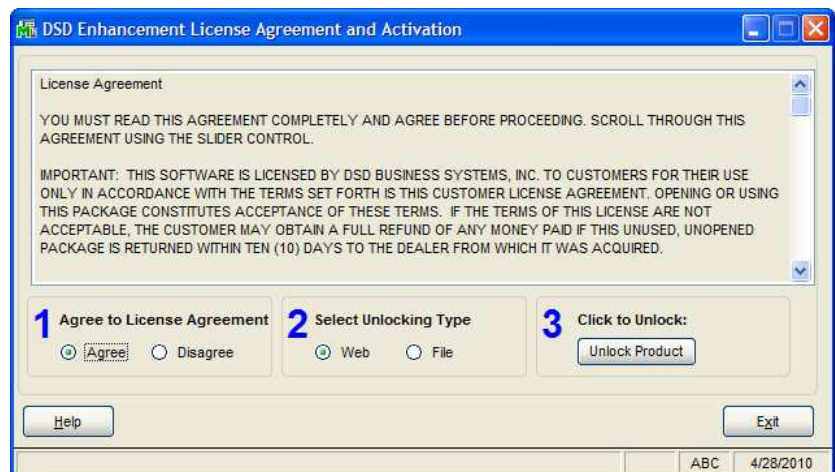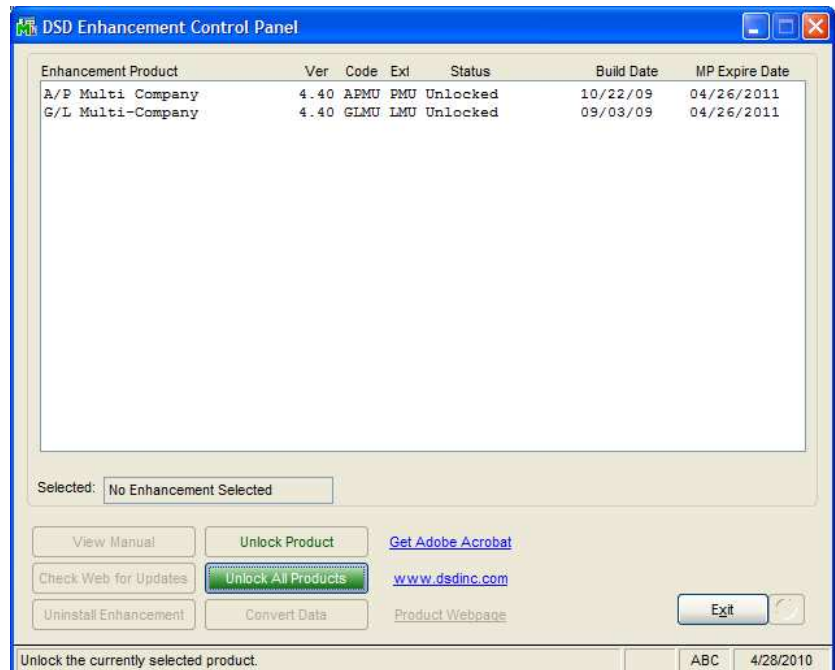
Convert Data: After verification, the selected Enhancements data conversion program will run. Data conversion is non-destructive, and may be triggered any number of times. Sometimes this is required to fix data records imported or updated from a non-enhancement installation.

Help: The Help button, located at the bottom right of the window, opens an HTML help file .

Get Adobe Acrobat: Opens the Adobe Acrobat website to the page where Acrobat can be downloaded and installed.

Uninstall Enhancement If this option is available, then selecting this button will start the un-install process, removing the enhancement from the system.

There are also links to the DSD website and the Enhancement page on that site.

Section C: System Operations

IMPORTANT: **SQL Mirroring** needs to work in conjunction with a SQL Server and ODBC. Your SQL Administrator should be contacted to insure that a proper system exists for Sage 100 to mirror into. This Manual does not attempt to explain SQL Administration, only those parts that pertain to setting the ODBC DSN (Data Source Name). If you have questions on SQL, please contact your Database Administrator.

SQL Mirror Options

After installation of the product, there will be two new menus in the Library Master Module: **SQL Mirroring Options** and **SQL Mirroring Selection**, as seen at right.
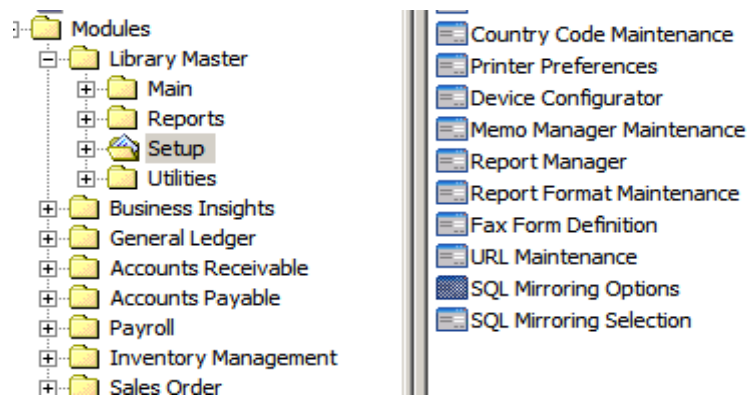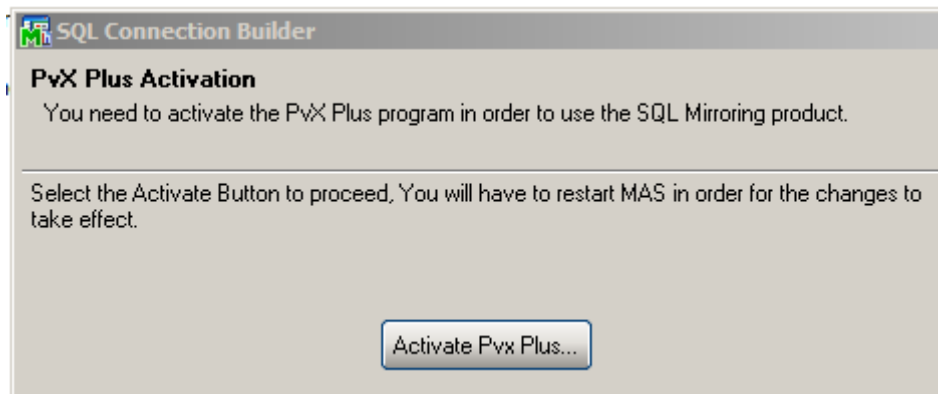
Select the **SQL Mirroring Options** menu item. This wizard will take you through the **SQL Mirroring** setup process.

PVXPlus Activation

When you first access **SQL Mirroring Options**, the PVXPlus Activation panel is displayed (see below) Select the Activate PVXPlus button to activate.

Once activated, you will need to **restart Sage 100.**

After you have restarted Sage 100 restart, re-enter **SQL Mirroring Options** to initiate the SQL ODBC DSN Builder Wizard.

SQL DSN Builder Wizard

The SQL DSN Builder wizard will allow you to create the connection through ODBC that the SQL Mirroring product requires to operate. The first screen is a welcome screen. Select the **Next** Button to start the process.


The next panel is the Driver Selection Panel, where you can select the SQL Server that will be used to mirror the Sage 100 Data files. All published SQL Providers are listed. Select the **Next** Button after you have made your selection.
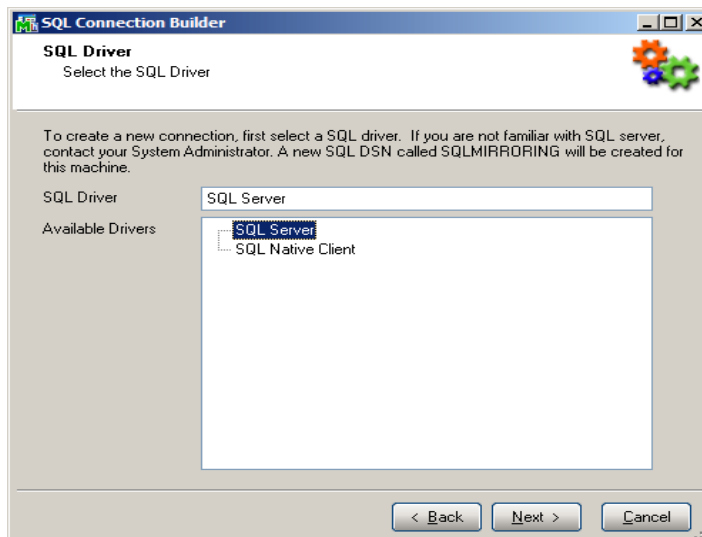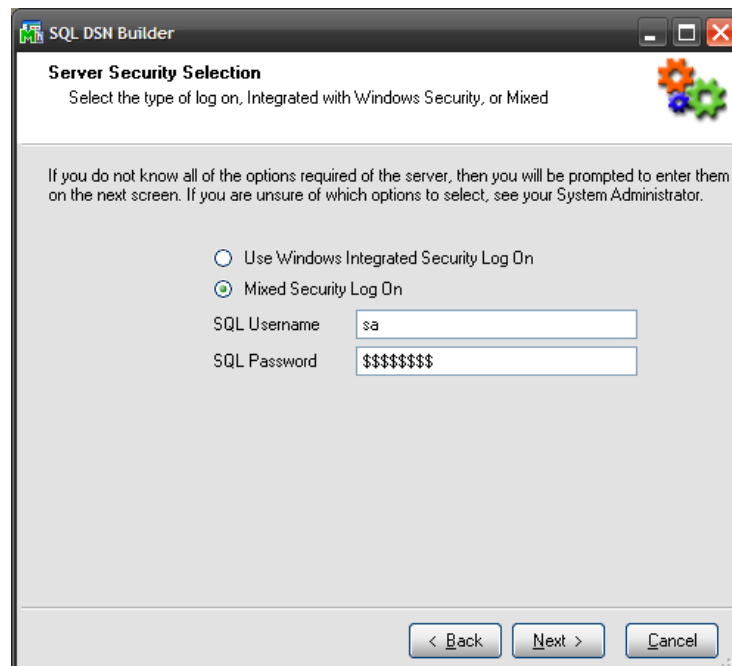

IMPORTANT: If you have any questions on which Driver to pick, please contact your Database Administrator.

The next panel is the Server Selection Panel, where you can select the SQL Server to mirror the Sage Sage 100 data files. Select the **Next** Button after you have made your selection.
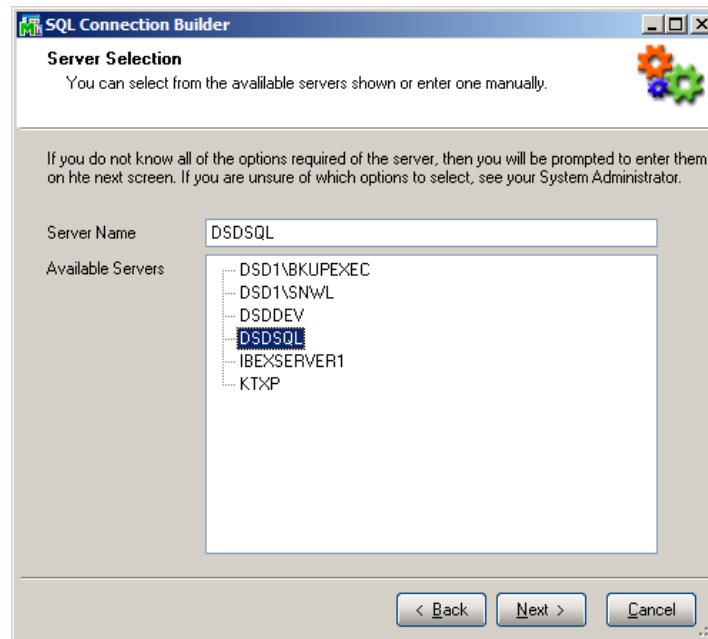
**If you have any questions on which server to pick, contact your Database Administrator.**

The Next panel is the SQL Security Selection where you can specify SQL mixed security or Windows Integrated security.

If you have any questions on which security model to pick, contact your Database Administrator.

Once these selections are made, you may select the **Finish** Button to start the advanced ODBC Setup program.
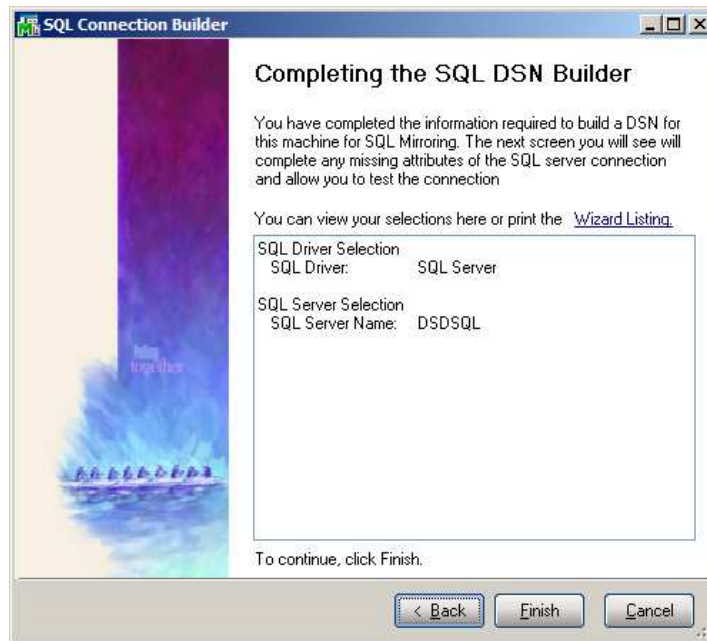
The series of panels for the **Create New Data Source for SQL Server** will default the DSN Name. **Do not change the name!.** The SQL Mirroring product will use this DSN Name internally. Other panels will follow this one, and should be done in accordance with the Database Administrator. Once the DSN has been created, then you can move onto the **SQL Mirroring File Selection** Menu Item.
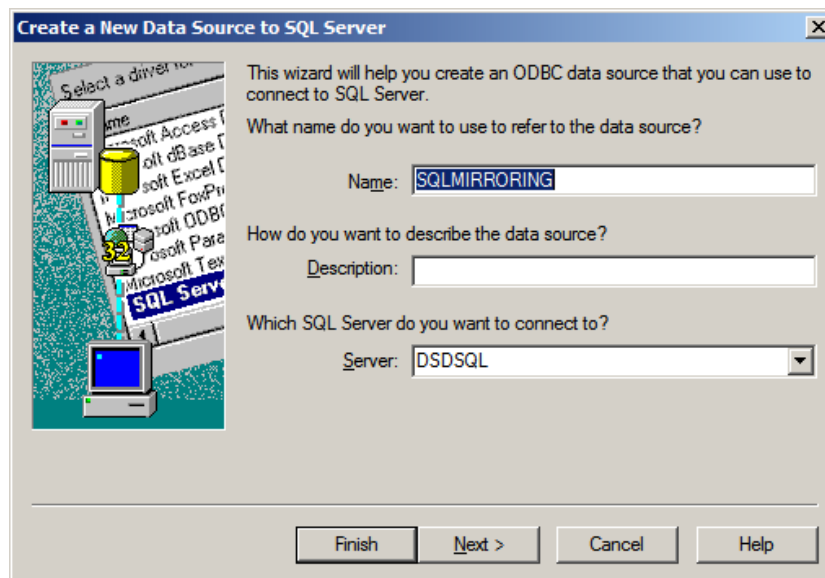
SQL Mirroring Selection

IMPORTANT: Please log all users out of Sage 100 prior to accessing **the SQL Mirroring Selection**.
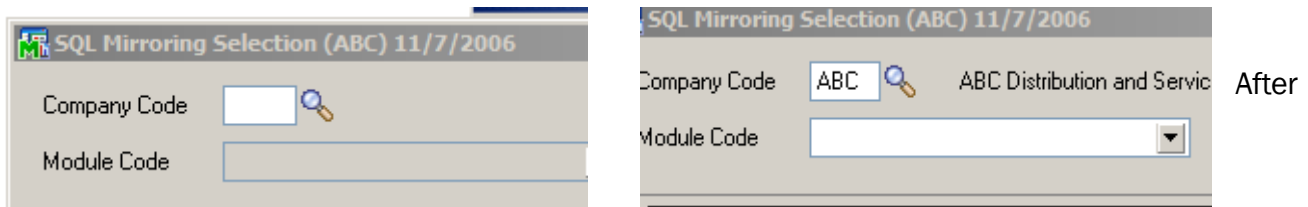
The Selection process is by company and module. First, Select a Company Code to Mirror, then select the Module Code to access the files for that module.

After

selecting a module, you may select the data files that you wish to mirror. Make sure that the Synchronize checkbox is checked, so that the Providex file is copied to the SQL Table.

NOTE: No Data will be loaded into the SQL Databases without selecting the Synchronize checkbox.

In the Example below, the AR_Customer data file is selected to be mirrored from Sage 100 into the SQL Database.
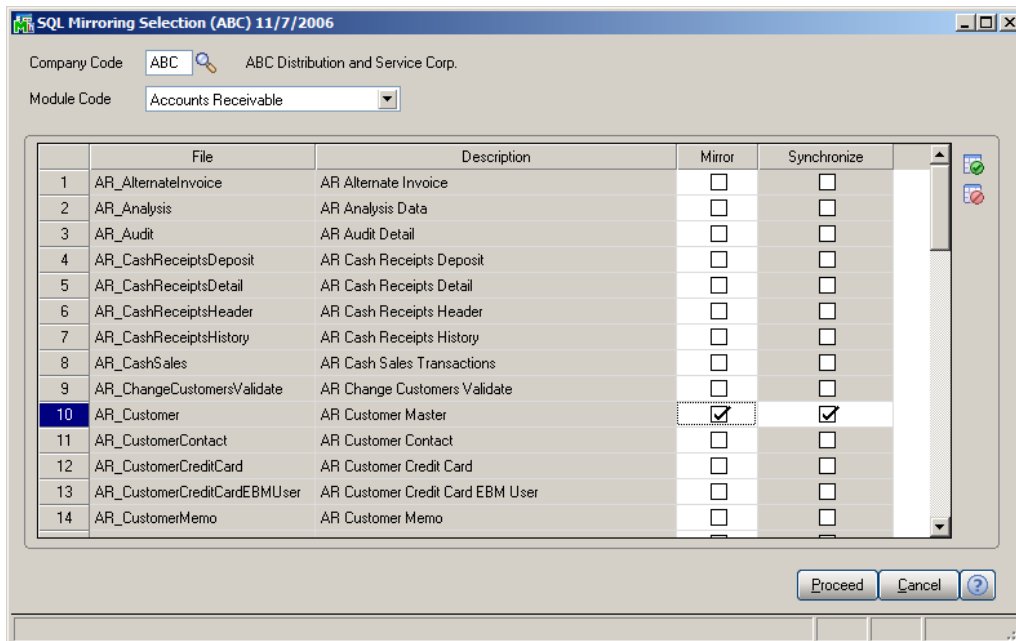
System Operation

SQL Mirroring runs in the background. As every record in a mirrored file is added, changed or removed, those changes will be updated in the SQL database automatically. The files will continue to mirror changes until they are de-selected.

If there are errors encountered in SQL operations an error log is written to MAS90Home\Lib_plus\mirror.

Note: This current version has limitations when Sage 100 is running as a service, until this is resolved; Sage 100 must run as an application.

Note: Integrated security with full "dbo" permissions are highly recommended

SQL Mirroring FAQ.

1. What can I expect during installation?
   a. MS SQL 2000 client or MS SQL 2005 Native client not present on the Sage 100 Server
   b. SQL Mirroring creates a database for each Sage 100 company in the chosen SQL Server instance, so the default database for the ODBC Data source (SQLMIRRORING) must be 'master'
   c. SQL Mirroring Setup Wizard may not list the desired SQL server, if the server instance was not created with 'broadcast' instance options. In this case, either select any other server to advance the wizard to the Windows Data Source program, and then type in the name of the server desired, or just use the Windows Data Source program itself and do the same. As long as the SQLMIRRORING DSN has the proper server, and tests successful, the right SQL Server will be used.
   d. If you encounter any ProvideX errors in either the SQL Mirroring Setup Wizard or the SQL Mirroring Selection Screen upon first choosing them, go to http://www.dsdinc.com to download the latest fixes from DSD.
   e. If any Windows Errors occur, Contact DSD. These errors indicate an unstable Sage 100 system that will have to most likely be re-installed.
2. Are there any permissions that I need to be aware of?
   a. The chosen SQL Mirroring instance must have CREATE ALTER and DROP TABLE permissions for each Sage 100 user that is using any mirrored Sage 100 file. The permissions for Sage 100 users must also have INSERT UPDATE and DELETE permissions for records. It is recommended that Sage 100 users be the only ones allowed into the server instance.
   b. Sage 100 C/S running as a windows service has permissions set to run under LOCAL SYSTEM user. Most likely, the SQL Server will not allow the LOCAL SYSTEM user any permission, so the permissions on the service must either be reset to a SQL user permission set or the Sage 100 application server must be run as an application.
   c. Integrated Security is HIGHLY recommended, as is integrated Sage 100 /Windows users. Mixed security SQL servers have yet to work consistently through SQL Mirroring.
3. Are there any specific Sage 100 C/S Issues?
   a. The SQLMIRRORING DSN needs not be set on each workstation. However, the SQL Server and Sage 100 User permissions must align correctly for successful mirroring.
4. Not all my files show up in SQL Mirroring File Selection, Why?
   a. Some Sage 100 data files field names are reserved SQL keywords (such as 'Operator') and cannot be mirrored without a SQL syntax error. This is a limitation of Sage 100 and cannot be worked around.
   b. 'Legacy' module UDF's cannot at this time be mirrored (AR_90, etc.) but the Business Framework UDF's can be mirrored. This is due to Sage 100 defining the legacy UDF files one way and then using them another way. This causes a SQL record overflow when selecting legacy UDF files for mirroring.

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Product:	*LMSQ SQL Mirroring*		Version:	*4.50*

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