Compleat Botanica - Managing your databases

Index to database topics

Database operations	Index to topics about database commands.
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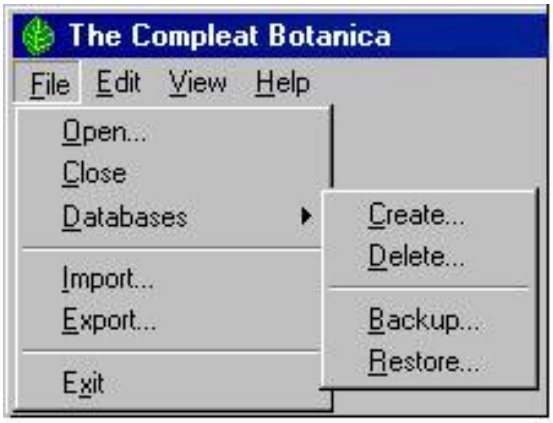
ODBC and MSDE	Index to topics about Open Database Connectivity (ODBC) and Microsoft SQL Server Desktop Engine (MSDE).

Compleat Botanica - Database operations

Index to database operations topics

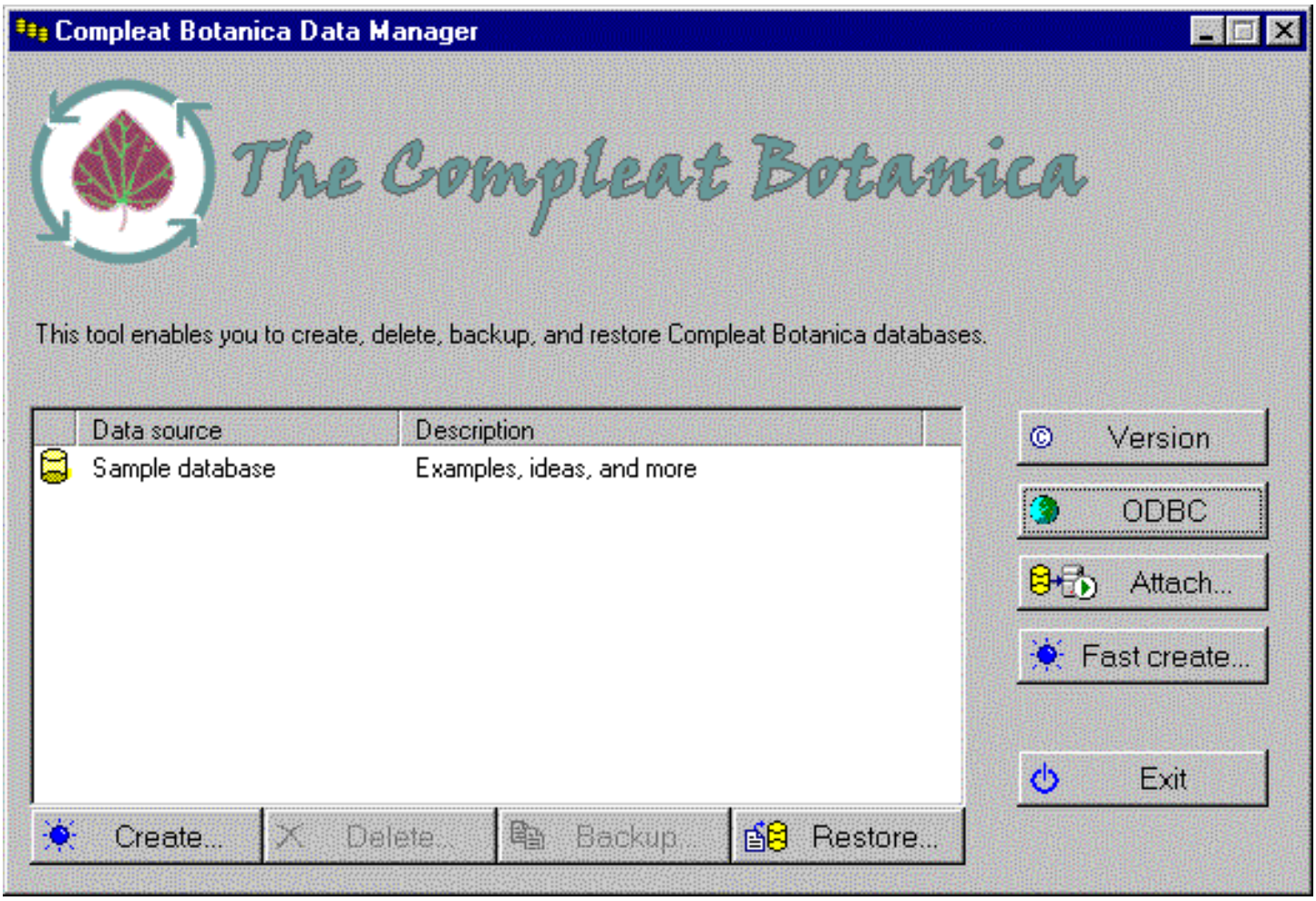
Compleat Botanica - The Data Manager utility

All of the major operations for working with your databases are accessible from the File menu. You can use The Compleat Botanica program to create and delete databases as well as backup and restore databases.



Sometimes though it is more convenient to do this outside of the program. The Data Manager utility is a stand-alone program which can perform these tasks.

Here is a snapshot of the utility:

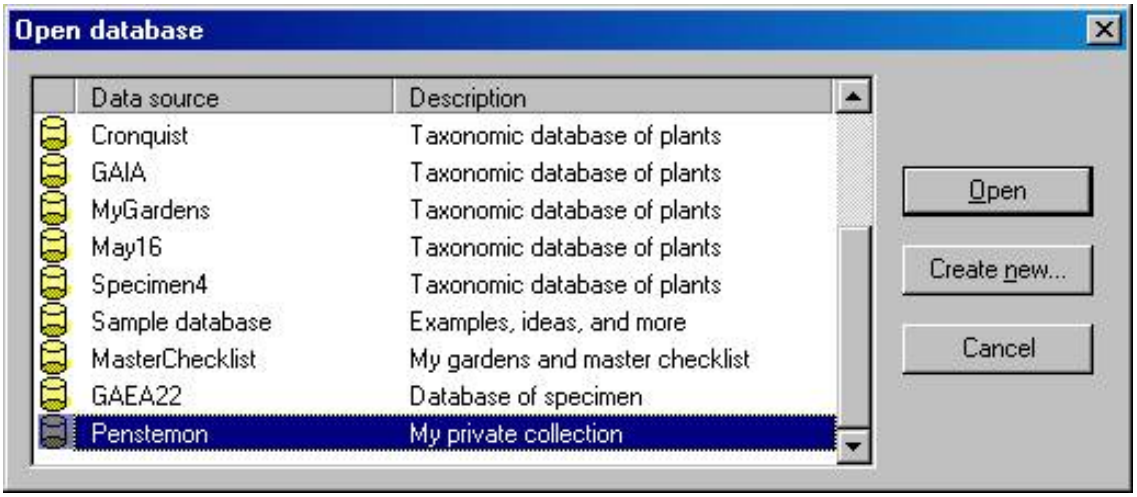


See the related documents for instructions on each menuitem or button.

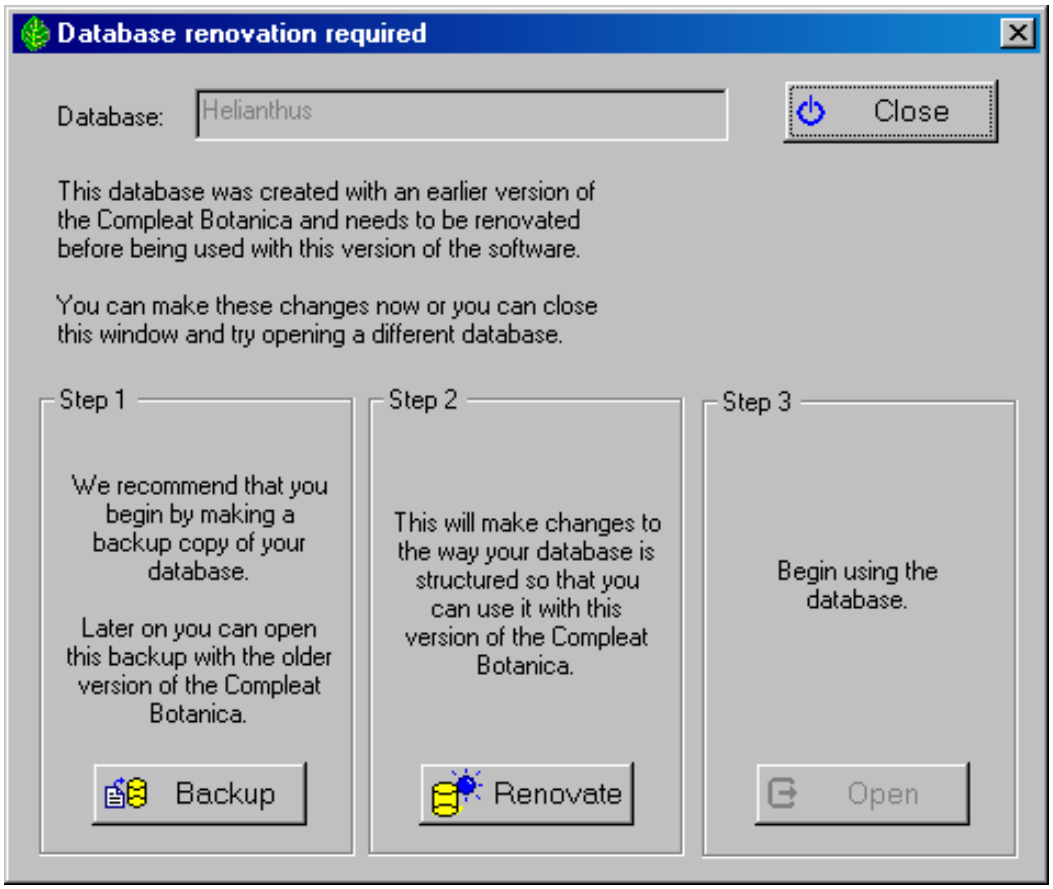
Compleat Botanica - Opening a database

Opening a database

Opening a different database is simple, just double-click on the data source name.



Opening an older database



If you have older databases from a previous version of the software, they'll need to be "renovated" before being opened. You'll be prompted automatically when this situation is recognized. Just follow the three steps for safely backing up, renovating, and opening your database.

Creating a database backup is optional but recommended, especially if you plan on ever using the older version of the software.

Opening a newer database

If you attempt to open a database that was created with a more recent version of The Compleat Botanica software, you'll see a message similar to this one. Newer versions of a database can only be opened with the newer version of the software.

Problems with opening a database

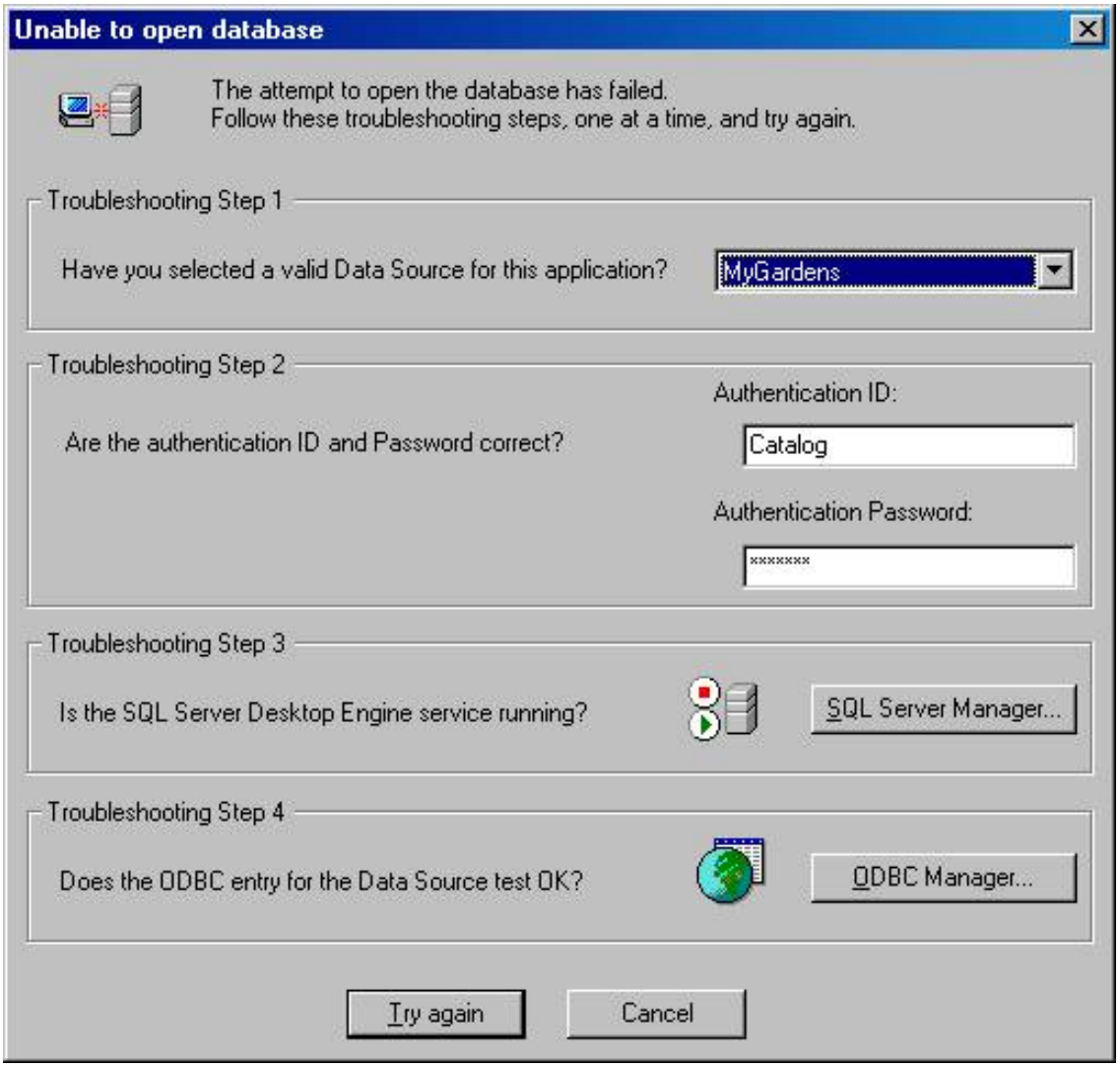
If you see the "Unable to open database" message window, you'll need to figure out what the problem is.

Step 1: Make sure you've selected a valid Compleat Botanica data source. (Note that not all data sources in the list are Compleat Botanica databases.)

Step 2: Both the Authentication ID and Password should be "Catalog".

Step 3: The SQL Server Desktop Engine should be automatically started. There is no need to troubleshoot this.

Step 4: Follow the steps for Troubleshooting the ODBC configuration. This is most likely to solve your problem.



Compleat Botanica - Closing a database

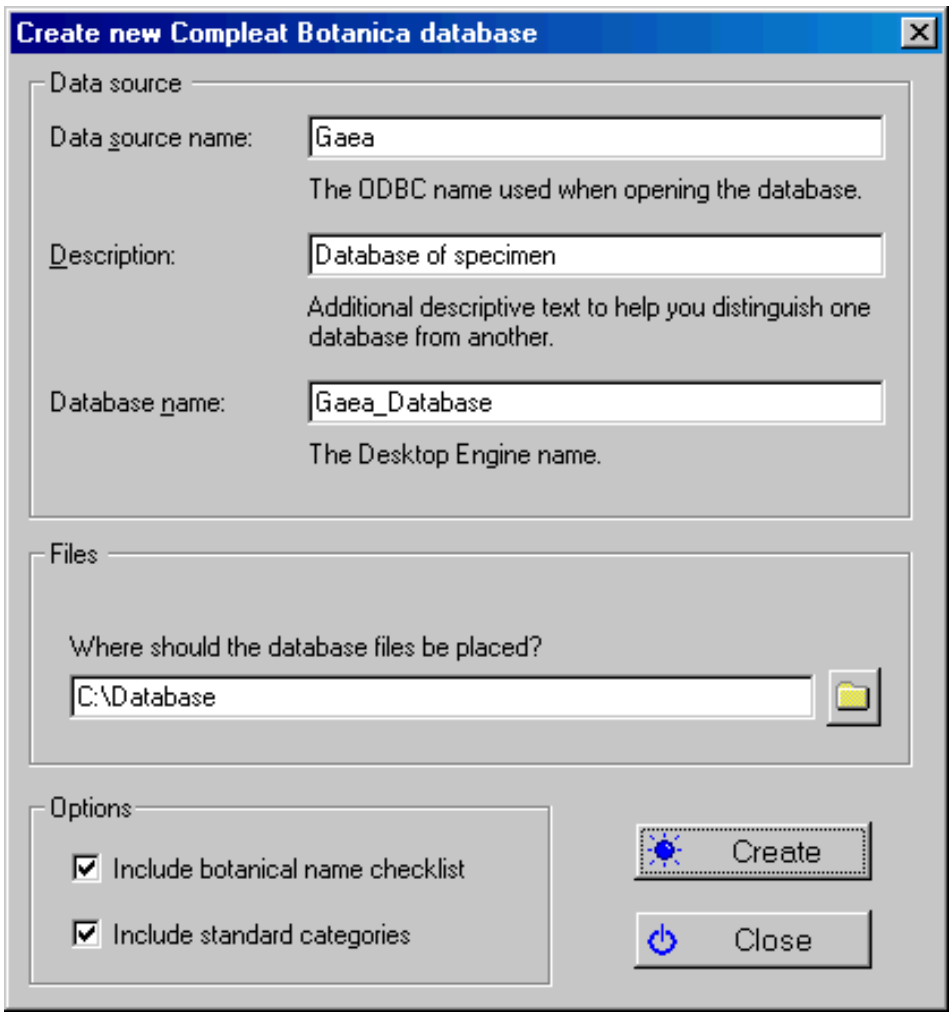
Closing a database is optional. Whenever you exit from The Compleat Botanica software the database is automatically closed. The next time you start the software the same database is automatically reopened.

Occasionally you'll want to close a database so that you can perform some operation in the Data Manager utility. To close a database simply select the menu item.

Compleat Botanica - Creating a new database

Your specimen are typically stored in a single database; however, there are times when you may want to create additional databases. For example, you may want to test a new feature of the software without worrying about losing data in your master database. Or you may want to keep your nursery specimen separated from your personal collection. You can create as many databases as you like.

You create a new specimen database either from the File menu of The Compleat Botanica program or from the **Create** button of the Data Manager utility. Here is the window you use to specify the new database name:

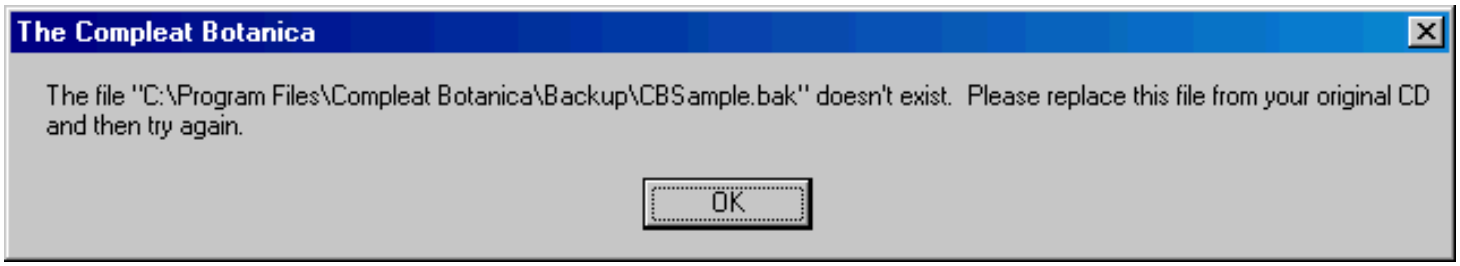


Field name	Description
Data source name	The ODBC name used when opening the database. By default this is the name of your computer. Choose a more appropriate name.

Description	Additional descriptive text to help you distinguish one database from another.
Database name	The Microsoft SQL Server Desktop Engine name. You will not use this name except in this window. This name is restricted to alphabetic characters.
Where should the database files be placed?	Choose a disk and directory name where the database will be placed. Each database consists of two files: a data file (with the extension .mdf) and a log file (with the extension of .ldf)
Include botanical name checklist	Leave this checkmark "on" to include the standard taxa entries. This is required for the botanical name spell-checker to work. Remove this check mark only if you are running low on disk space, or you want to use your our botanical name checklist.
Include standard categories	Leave this checkmark "on" to include the standard categories.

There are several things to watch out for:

The database creation process uses the "CBSample" database backup file as a template for the new database. If this file is missing, you will see this message. See the note about Using the fast create option for an alternate way to create a new database.



All database names must be different from one another.

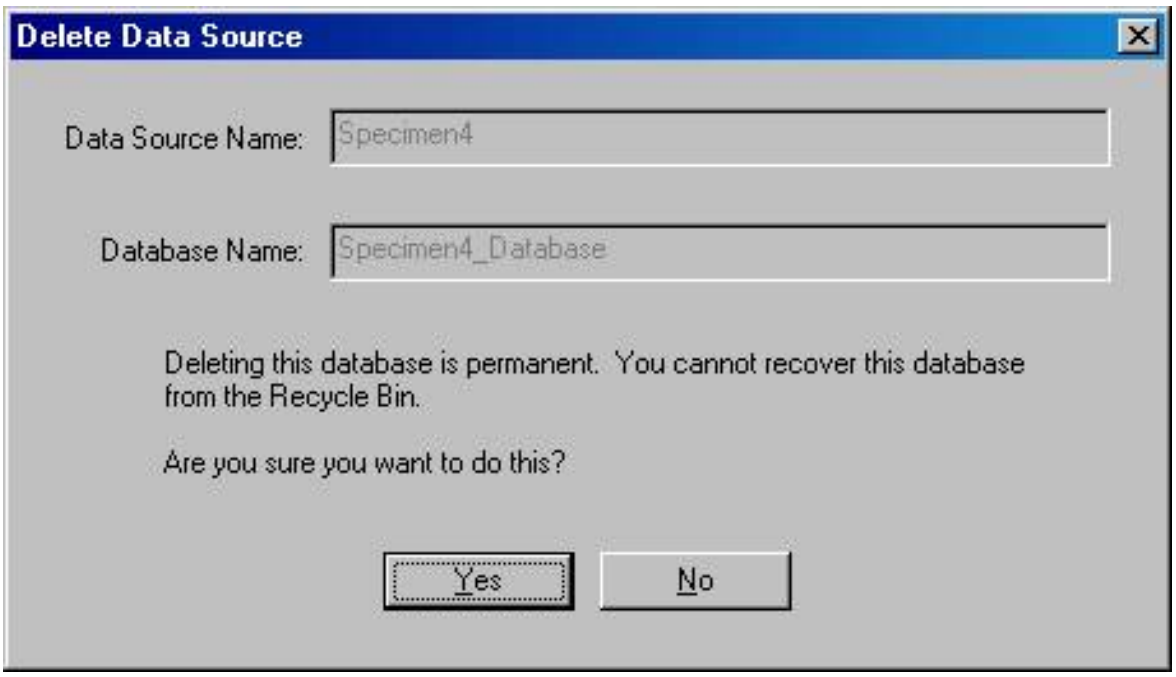
Most of the special characters on the keyboard are not allowed in either the ODBC name or the database name.

The first character must be a letter from A to Z (numbers and underscores are allowed in the rest of the name.)

If you see this message, you've either specified an invalid name, or you don't have enough disk space for the new database, or the disk is read-only.

Compleat Botanica - Deleting a database

Deleting a database is simple, but if you ever want to restore the database be sure to back it up before deleting. The delete operation is permanent.

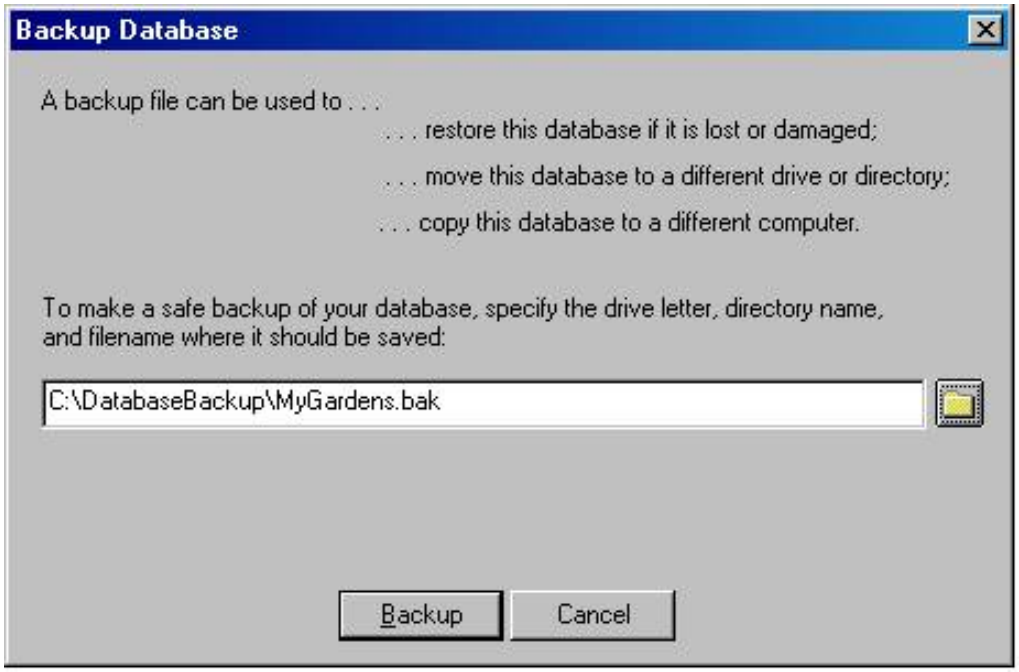


Problems with deleting a database

If you see this message, you'll have to use the ODBC Manager utility to delete the database entry, and the Windows Explorer to delete the underlying database files.

Compleat Botanica - Making a backup copy of your database

It's essential to make a backup of your database whenever you've made changes to any of your specimen records. The backup process compresses your data and places it in a special format which can be used by the Restore database operation. Backing up a database is straightforward. Use the Data Manager utility or the backup option located in the File menu of The Compleat Botanica software.

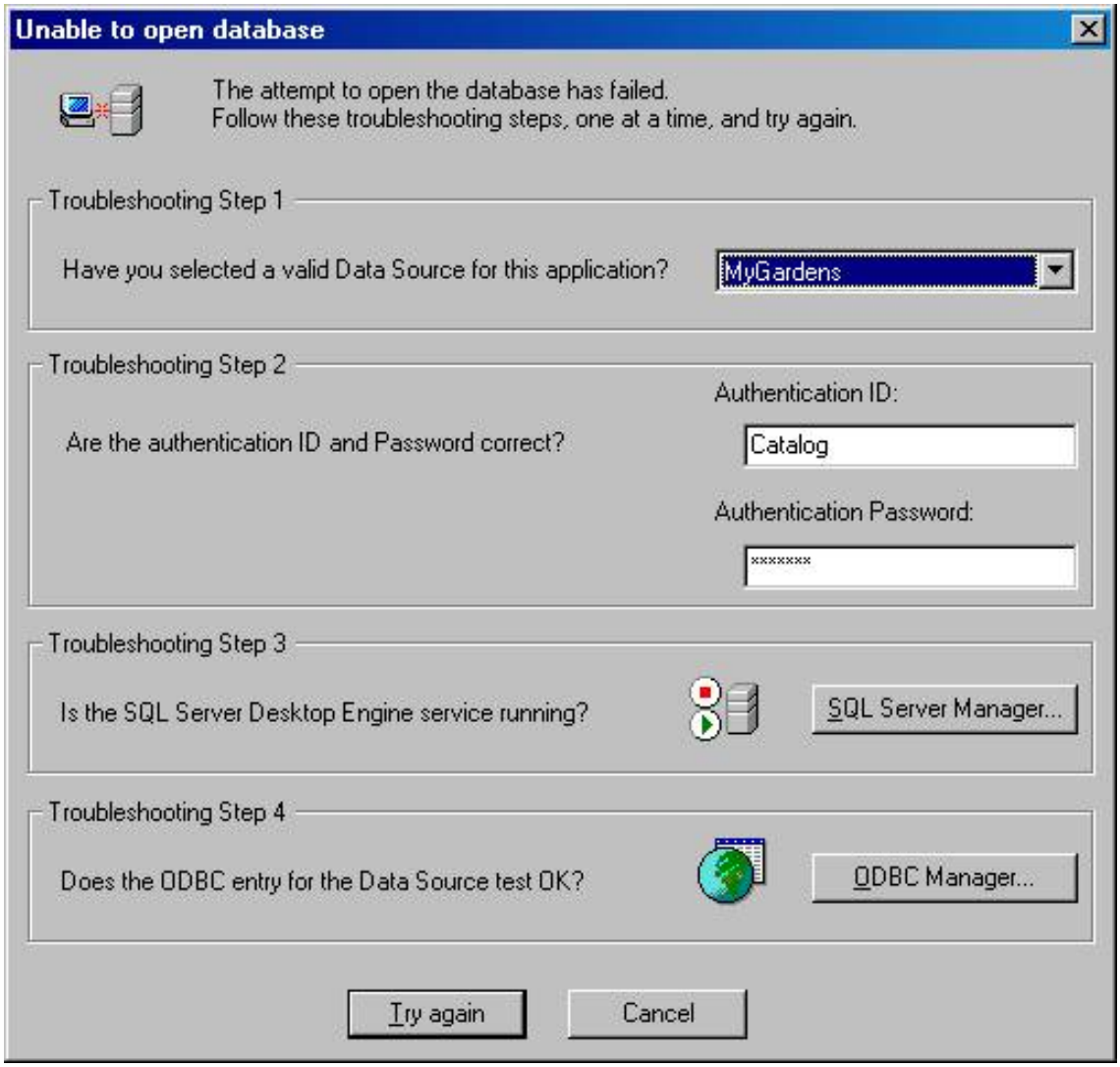


Problems with backing up a database

If you see this message, when attempting to backup a database, it's a signal indicating that the ODBC entry is no longer valid. You'll probably have to use the ODBC Manager utility to correct the situation before backing up.

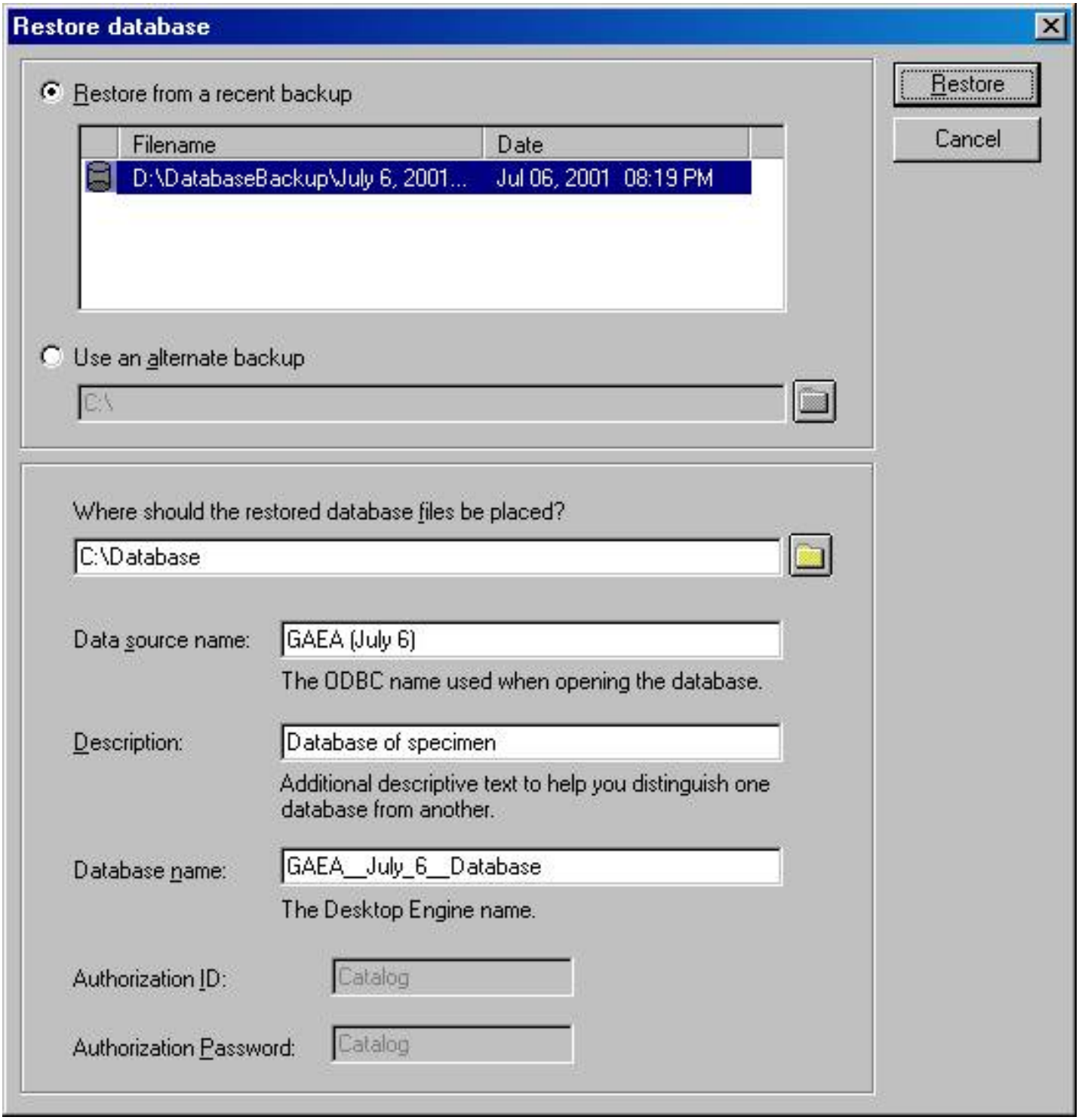
This may occur if

you've reinstalled the Microsoft SQL Server Database Engine after creating this database.



Compleat Botanica - Restoring a database from a previous backup

You can restore a database to it's active state by using the Data Manager utility or directly from within The Compleat Botanica software. Here's what the window looks like:



Field	Description
Restore from a recent backup	This list of recent backups is a convenient way to choose which database to restore. If the backup file is not in the list (for example, if the backup is coming from a different computer), use the alternate backup option.
Use an alternate backup	Type in the name of the backup file, or search your computer for the backup to be restored.
Where should the restored database files be placed?	This is a disk with adequate space for the restored file.
Data source name	The ODBC name used when opening the database. By default this is the name of your computer. This name does not need to be the same as your original name.
Description	Additional descriptive text to help you distinguish one database from another.
Database name	The Microsoft SQL Server Desktop Engine name. You will not use this name except in this window. This name is restricted to alphabetic characters. It must not be the same as any other active database.
Authorization ID	This is fixed at “Catalog” so that you will not be prompted for authorization each time you start the software.
Authorization Password	This is fixed at “Catalog” so that you will not be prompted for authorization each time you start the software.

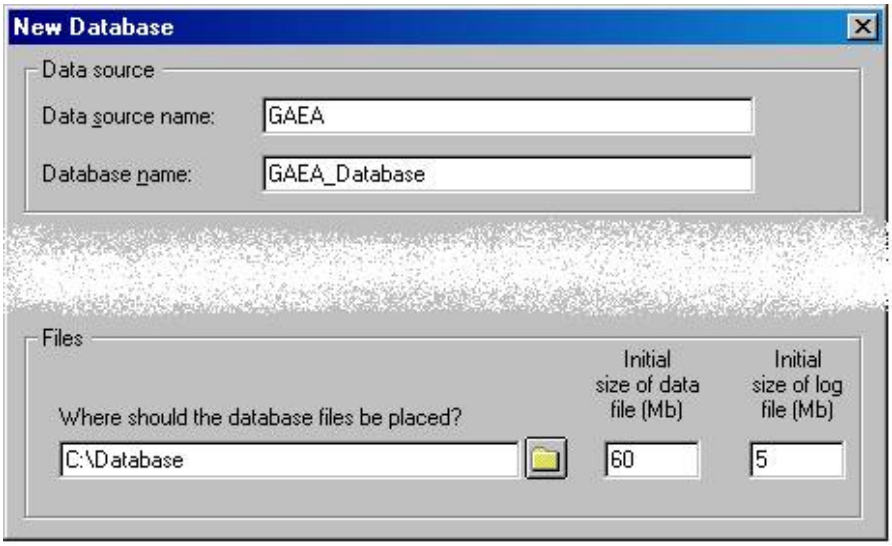
Compleat Botanica - Special database issues

Index to special database issues

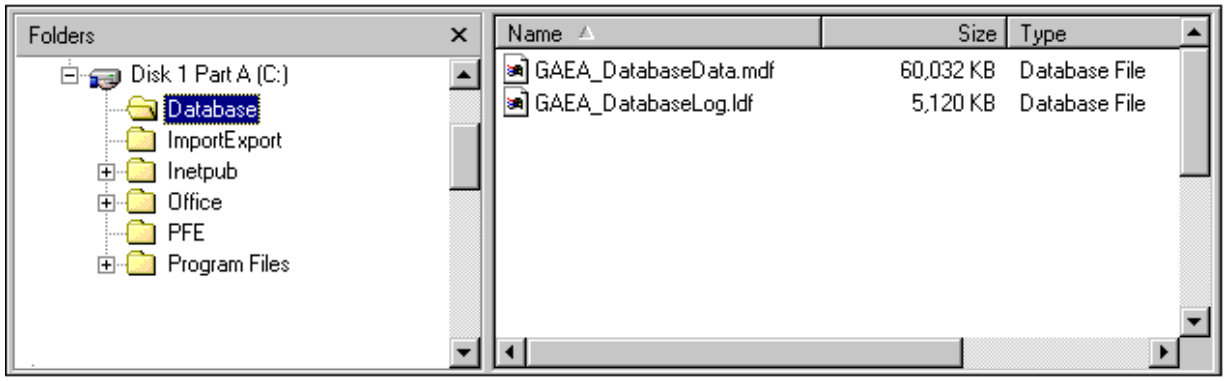
Compleat Botanica - The difference between database files and backup files

Your specimen data is stored in a special database format managed by Microsoft's SQL Server Desktop Engine. Using the create database command you can create extra databases for special needs. Each database is stored on your computer's hard disk using two files. One of these two files stores all of your data, the other is a transaction log file used to ensure that changes to the first file are always carried out without corruption.

The location of these two database files is set by you when you create the database. The names of the two files is automatically determined when you type in the name of the database.



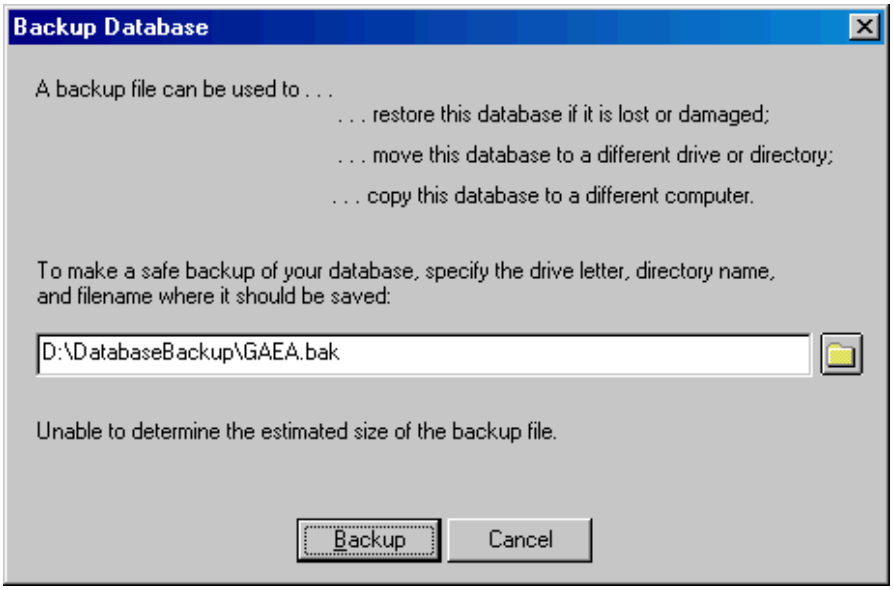
For the parameters shown above the two files would be like this:



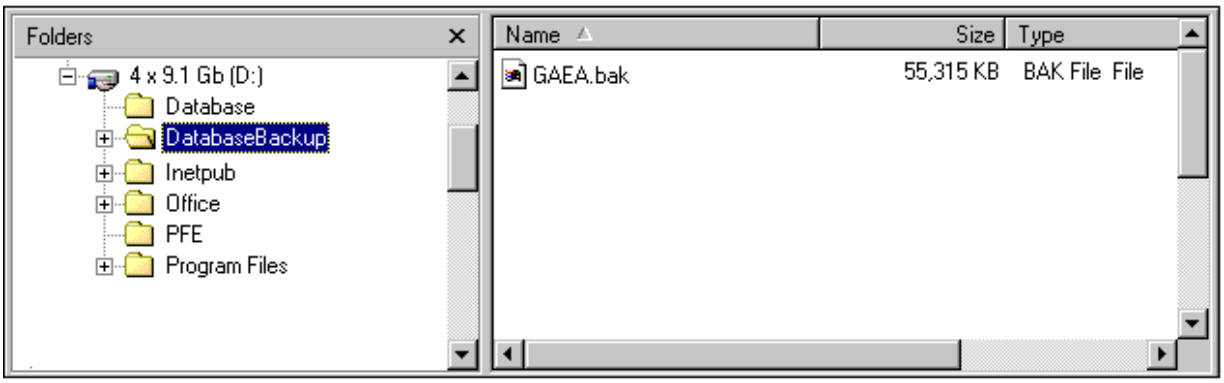
Caution: Do not attempt to move these two files using Windows Explorer. Moving these files to a different directory or a different disk will damage them so that you'll be unable to use your database. If you need to change their location follow the instructions for Moving your database files.

When you make a backup of your database, the two files are compressed into one special backup file. This backup file is suitable for use with the database restore operation.

When you make a backup copy of your database, the backup file can be placed in any directory on any drive.



Note that this backup file can only be used with the database restore operation. It cannot be opened directly with the database open command.



Compleat Botanica - Moving your database files

Your databases are stored in two special files which are managed by SQL Server Desktop Engine. Do not attempt to move these files using Windows Explorer. If you've run out of disk space, or if you're upgrading your hard disk, or if you want to change the location of these two files for any reason, follow these instructions for backing up and restoring your database.

The overview of want you'll need to do to move your database files is simple:

1. Backup your database
2. Restore the backup copy of your database using a new location
3. Delete your original database

Follow the instructions for each step as detailed in those documents. For step two, use a name for the restored database that's different from the original database name (all active databases must have distinguishing names). When restoring the backup file you can place the database on any drive or directory that has adequate space.

Compleat Botanica - Using the fast create option

The fast create button is available only from within the Data Manager utility. It is used to create a new database without any taxonomic records. It does not use the "CBSample.bak" file as a template the way the normal create button does.

Here is the window you use to specify the new database name:

Field name	Description

Data source name	The ODBC name used when opening the database. By default this is the name of your computer. Choose a more appropriate name.
Description	Additional descriptive text to help you distinguish one database from another.
Database name	The Microsoft SQL Server Desktop Engine name. You will not use this name except in this window. This name is restricted to alphabetic characters.
Where should the database files be placed?	Choose a disk and directory name where the database will be placed. Each database consists of two files: a data file (with the extension .mdf) and a log file (with the extension of .ldf)
Initial size of data file (Mb)	The data file will grow in size as you add more specimen. It is safe to accept the default value of 60. Change this only if you know your database will be much larger or much smaller.
Initial size of log file (Mb)	The log file is used during lengthy import/export operations to safely stage the updating of your database. Accept the default value in all cases.
Authorization ID	This is fixed at “Catalog” so that you will not be prompted for authorization each time you start the software.
Authorization Password	This is fixed at “Catalog” so that you will not be prompted for authorization each time you start the software.

There are several things to watch out for

All database names must be different from one another.

Most of the special characters on the keyboard are not allowed in either the ODBC name or the database name.

The first character must be a letter from A to Z (numbers and underscores are allowed in the rest of the name.)

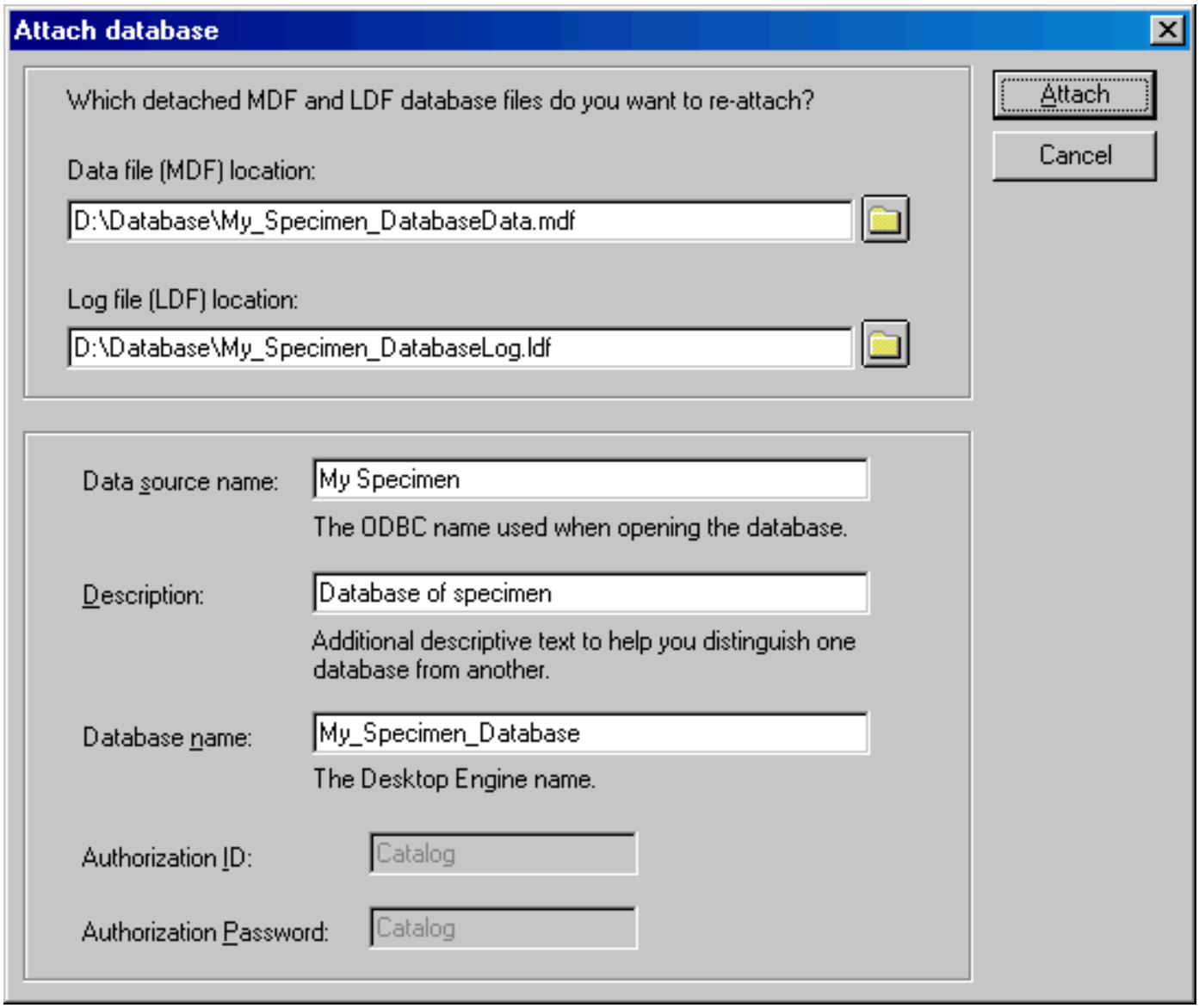
If you see this message, you've either specified an invalid name, or you don't have enough disk space for the new database, or the disk is read-only.

Compleat Botanica - Attaching a database from a previous installation

The Attach button can be used in some emergency situations where otherwise valid database files (*.mdf, *.ldf) become detached from the Microsoft SQL Server Desktop Engine. Typically this situation occurs only when you reinstall the SQL Server Desktop Engine software.

> The Attach button is not the favored way of dealing with a reinstallation of SQL Server Desktop Engine. The safest process is to create a backup of your database, then reinstall the software, and finally restore the backup to the new installation.

The Attach button is available only from within the Data Manager utility. Here is the window you will use to perform this process:



Field name	Description
Data file (MDF) location	The full path and filename of the master database file containing the Compleat Botanica database needing to be re-attached.
Log file (LDF) location	The full path and filename of the log file associated with the above-specified database file.
Data source name	The ODBC name used when opening the database. By default this is the name of your computer. Choose a more appropriate name.

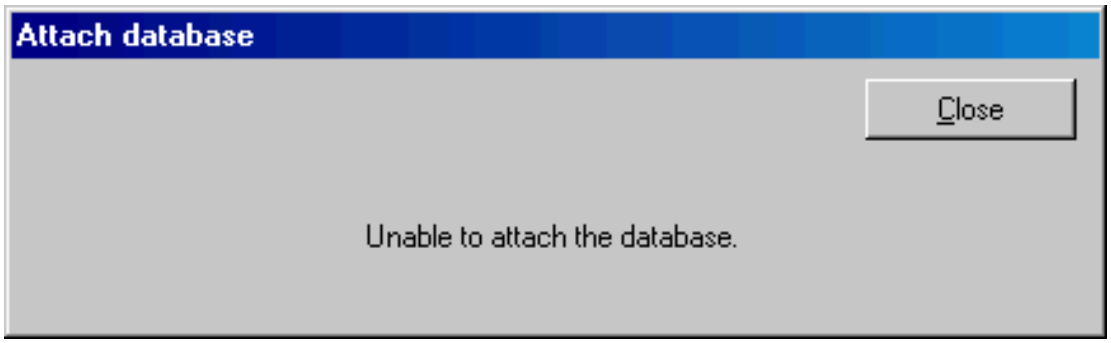
Description	Additional descriptive text to help you distinguish one database from another.
Database name	The Microsoft SQL Server Desktop Engine name. You will not use this name except in this window. This name is restricted to alphabetic characters.
Authorization ID	This is fixed at “Catalog” so that you will not be prompted for authorization each time you start the software.
Authorization Password	This is fixed at “Catalog” so that you will not be prompted for authorization each time you start the software.

There are several things to watch out for

All database names must be different from one another.

Most of the special characters on the keyboard are not allowed in either the ODBC name or the database name.

The first character must be a letter from A to Z (numbers and underscores are allowed in the rest of the name.)

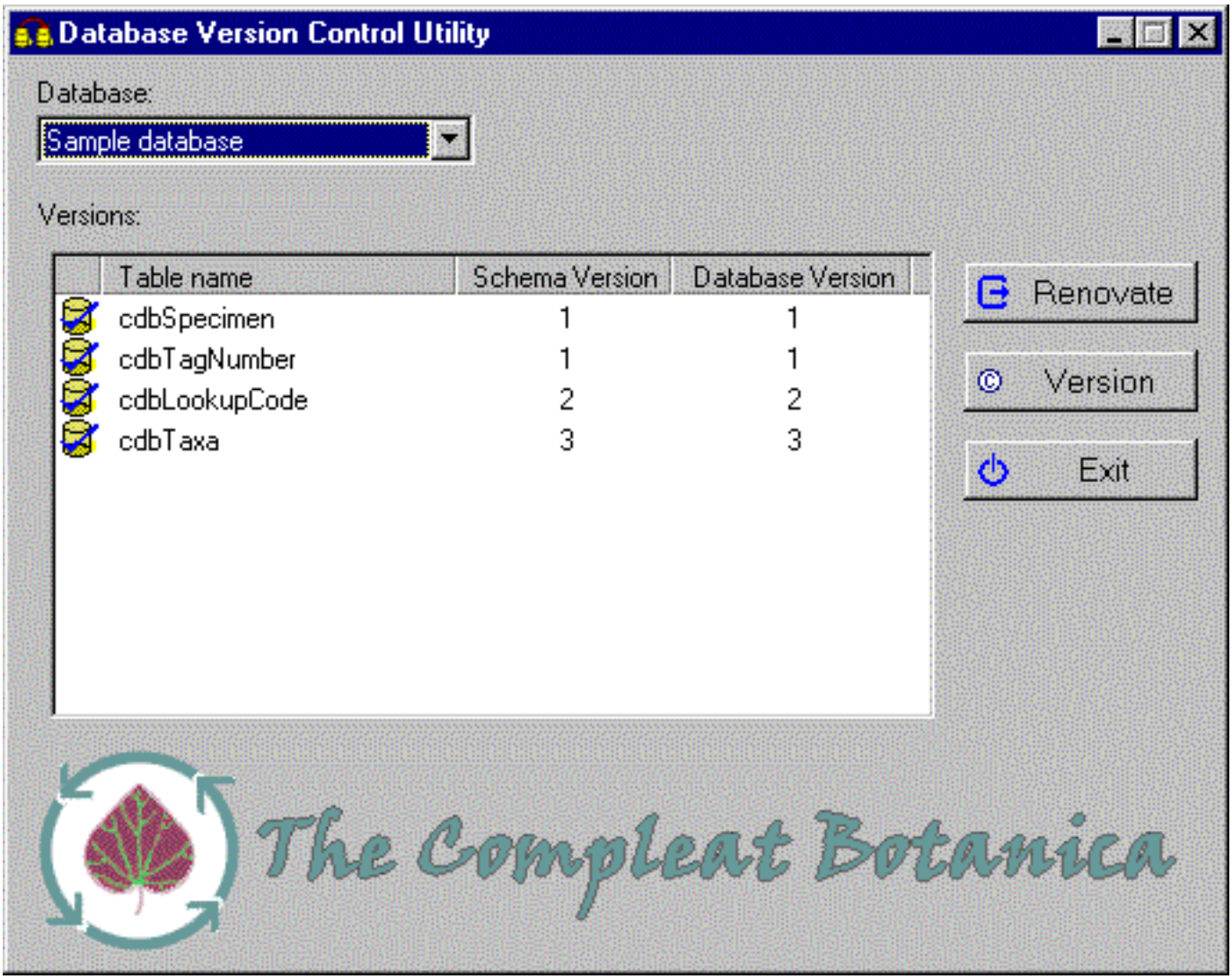


If you see this message, your database file is either corrupted and can't be used, or it's already attached to the SQL Server Desktop Engine.

Compleat Botanica - The database version control utility

Each of the database tables used by The Compleat Botanica is identified with a version number. As changes to the software are made, the version numbers increase. The Version utility will show you the current version numbers of each table in your database. This is may be useful in some troubleshooting situations. More importantly, this utility has the ability to update older databases to the current version used by the software.

If any of the tables is missing newer columns the **Renovate** button will safely add them to your active database.

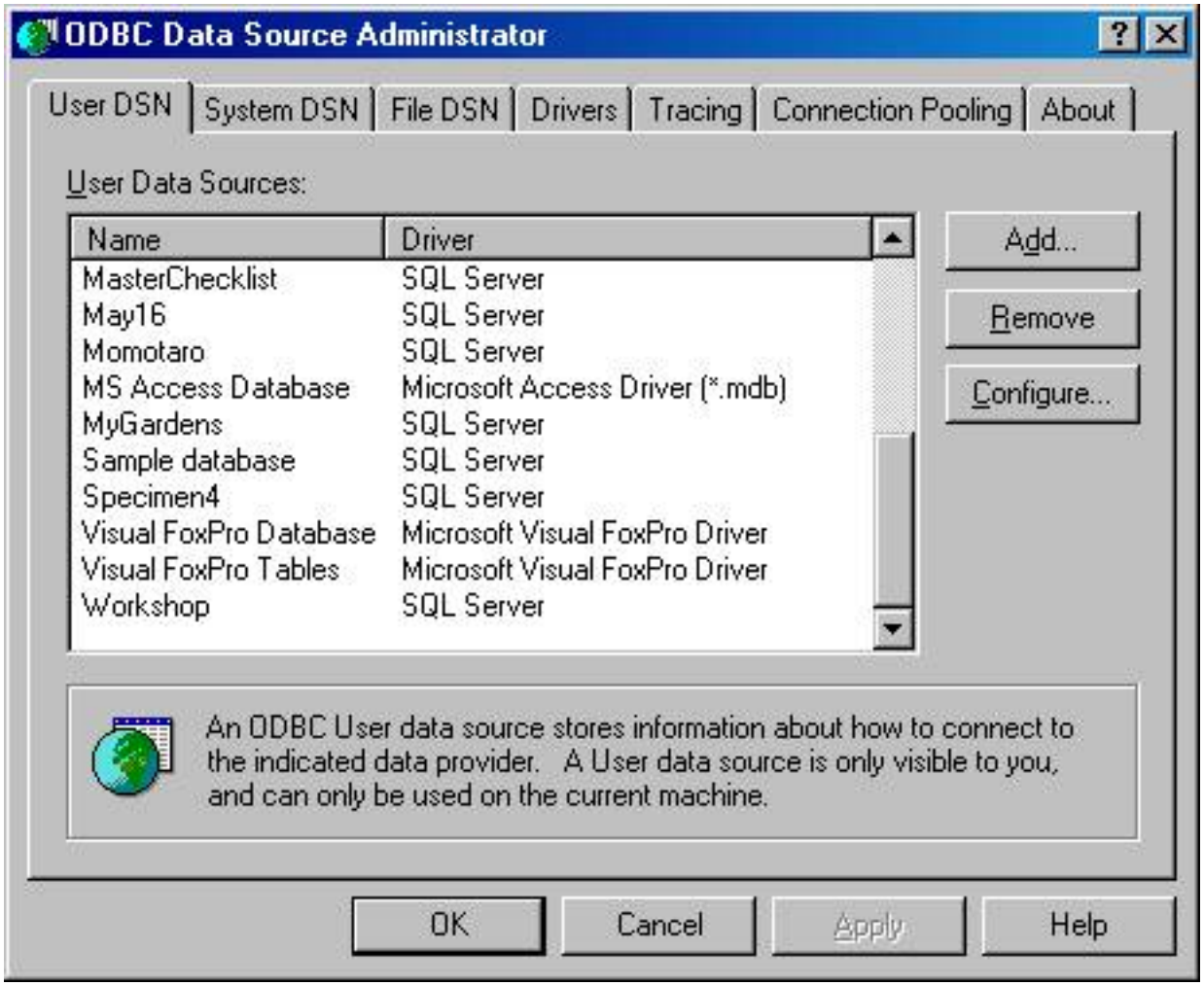


Compleat Botanica - ODBC and MSDE

Index to ODBC and MSDE topics

Compleat Botanica - What is the ODBC Manager?

The Open Database Connectivity (ODBC) Manager is a utility for adding, configuring, and deleting database names. It contains a list of names (called *data sources*) used by many different database applications. Normally, The Compleat Botanica software handles the creation and deletion of data source entries in this list; however, when abnormal conditions occur this list can get out of synchronization with the true list of databases on your computer. If that happens, you'll need to make additions, changes, and deletions using this utility. Here is what version 3.520 of the ODBC Manager looks like:



Each entry in the list is merely a reference to the actual data. Because of this, the creation and deletion of these references is autonomous with respect to the actual databases themselves; thus you can safely delete an entry in this list without affecting the actual database itself.

If you need to create a new entry in this list in order to make an existing database "visible", follow the Eight steps to creating an ODBC data source. If you need to correct a problem with an existing ODBC data source entry, check the

instructions for Troubleshooting the ODBC configuration.

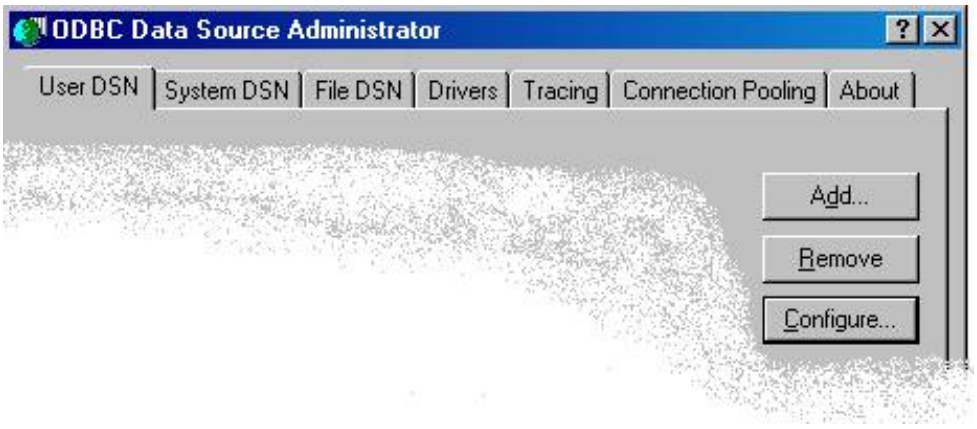
> Caution: The full list of ODBC entries for your computer probably contains entries which have nothing to do with The Compleat Botanica. Making changes to those entries may affect the operation of other applications installed on your computer.

Compleat Botanica - Eight steps to creating an ODBC data source

Use these instructions to create a data source directly using the ODBC Manager. This should be done only under abnormal conditions.

1

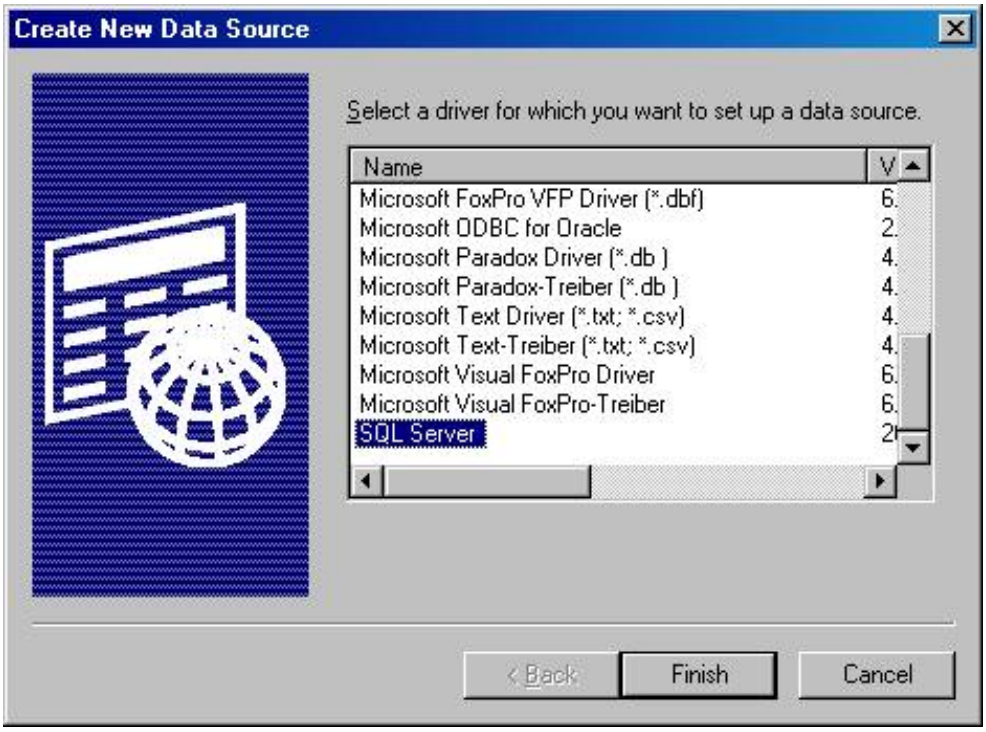
Press the **Add** button



2

Select the **SQL Server** driver.

Press the **Finish** button.



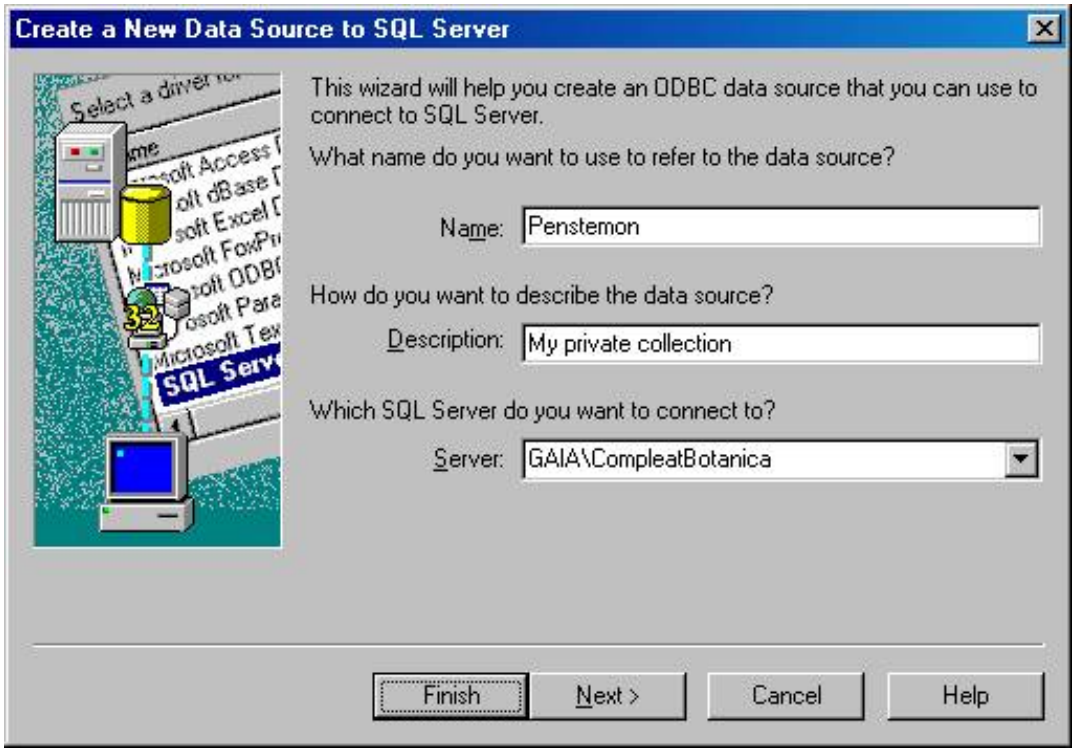
The **Name** is required.

The **Description** is optional.

Which SQL Server do you want to connect to? should be the SQL Server Desktop Engine with a name ending in "\CompleatBotanica"(The prefix is your computer name).

Press the **Next** button.

3



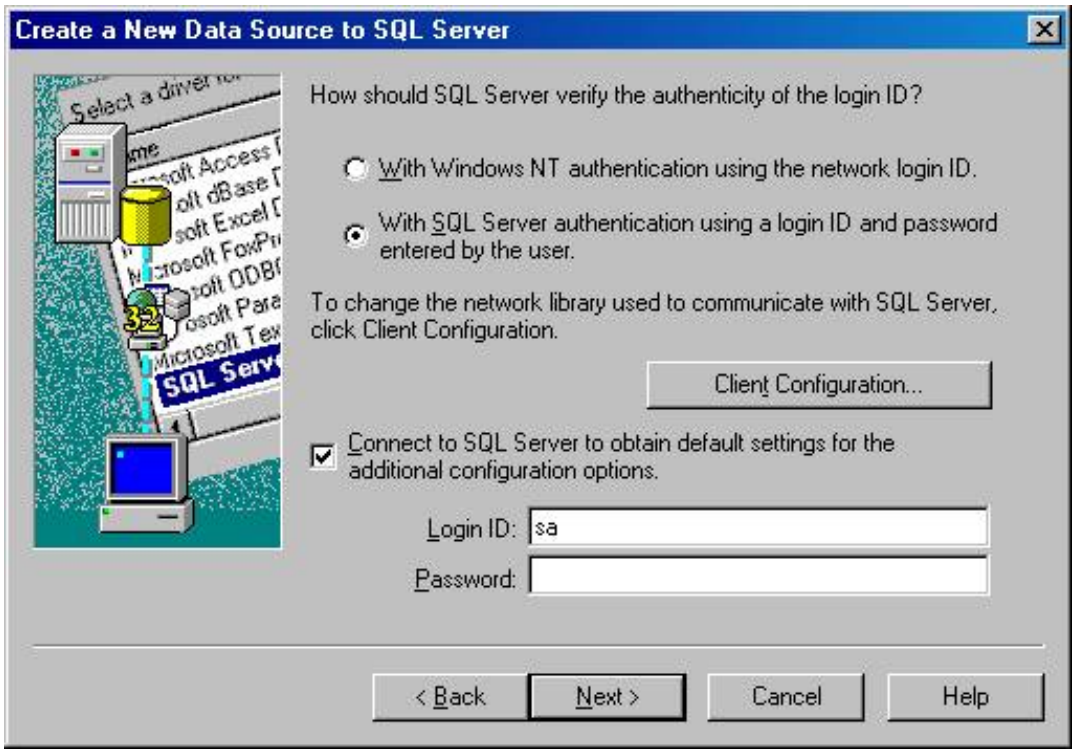
Click on the second button – **"With SQL Server authentication using a login ID and password entered by the user."**

Change the **Login ID** to "sa" (This is the System Administrator ID).

Do not supply a **Password**.

Press the **Next** button.

4



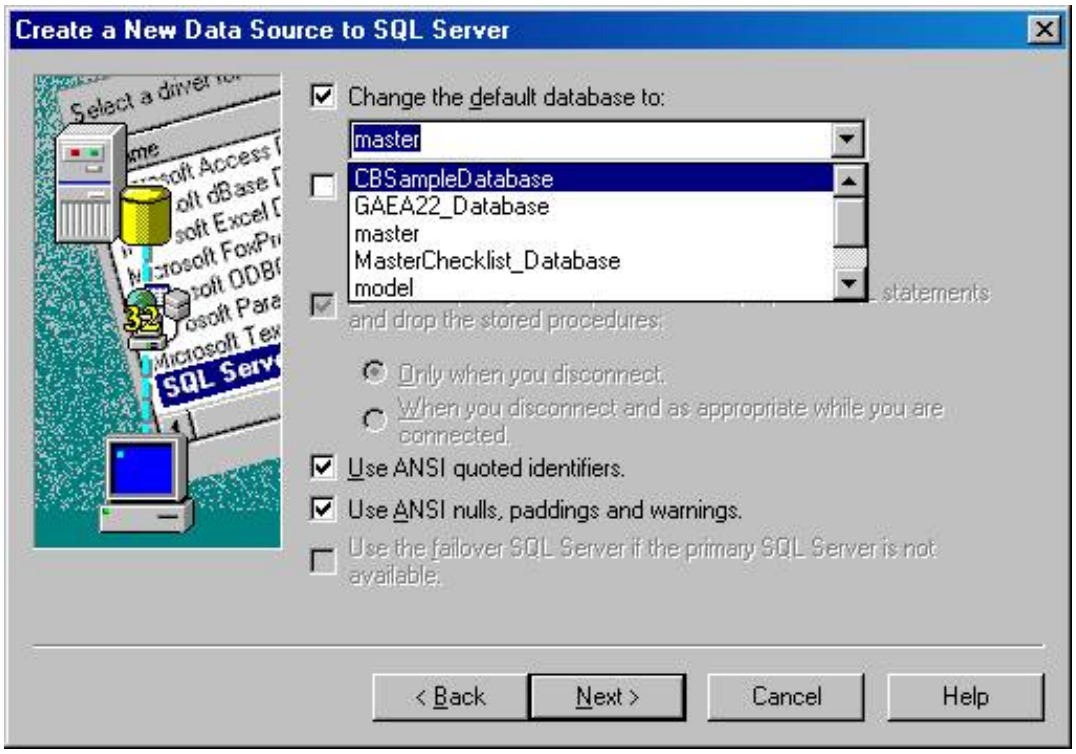
Check the box labeled: **“Change the default database to”**

Use the drop-drop combo-box to select the existing database that you are making this ODBC entry for.

Leave all other buttons on this screen at their default values.

Press the **Next** button.

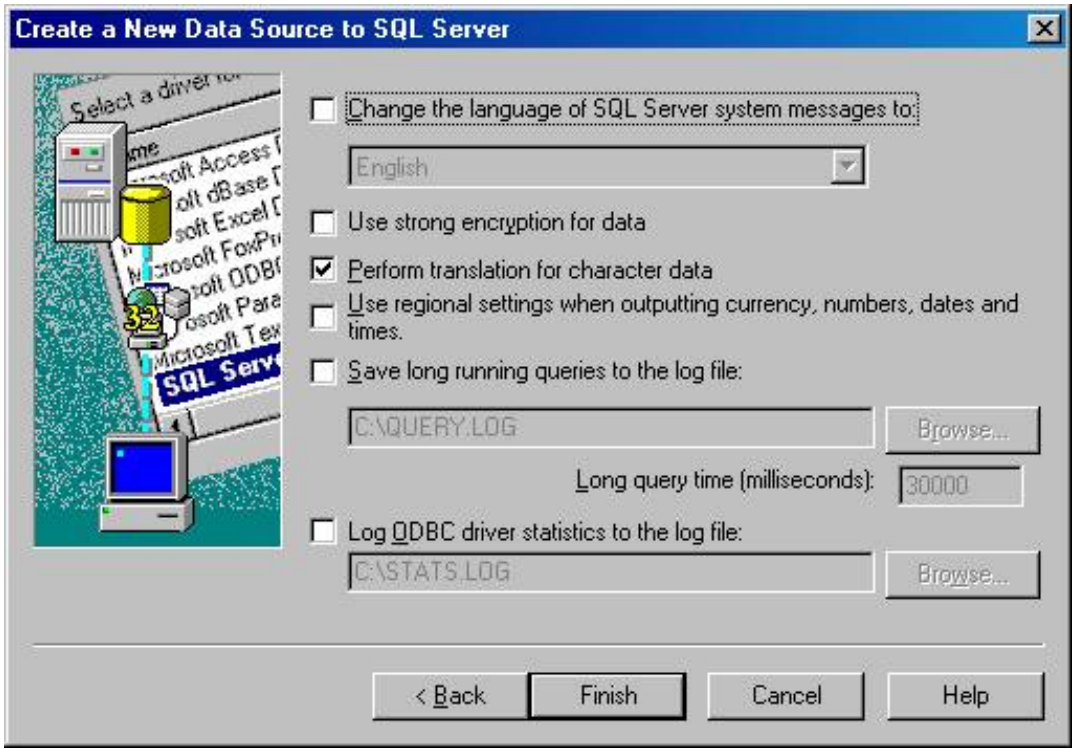
5



Leave all options on this screen as they are.

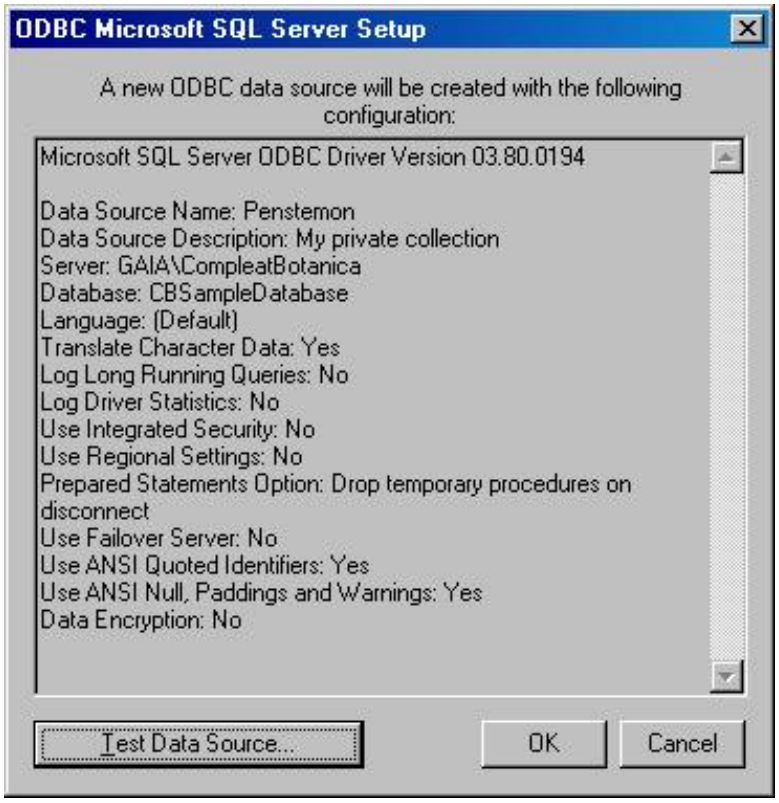
Press the **Finish** button.

6



Press the **Test Data Source** button

7



Verify that the "Tests Completed Successfully."

Press the **OK** button.

8

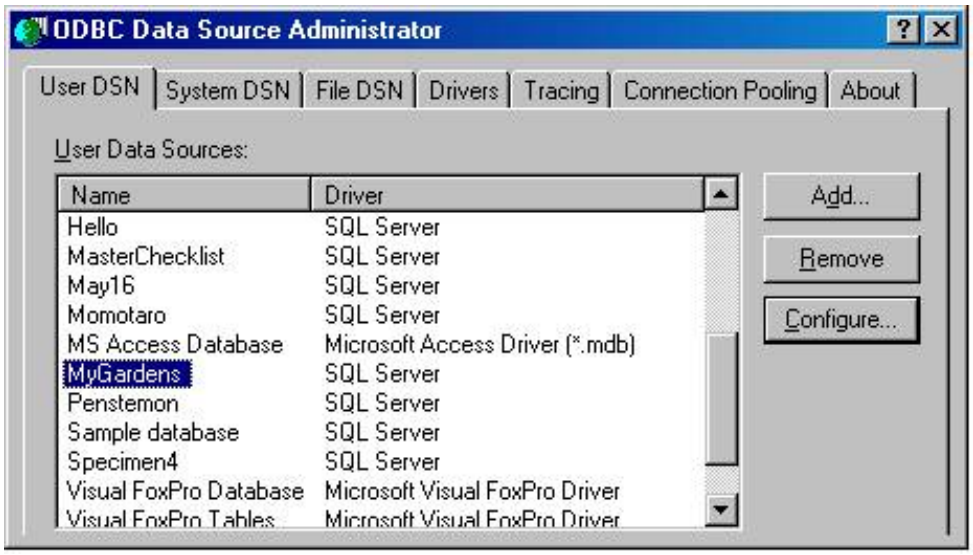
Compleat Botanica - Troubleshooting the ODBC configuration

Use these instructions to test the validity of an existing ODBC data source. You may need to do this if the SQL Server Desktop Engine has been reinstalled, or if the data source name has gotten out of synchronization with the underlying database files.

1

Select the data source name to troubleshoot.

Press the **Configure** button



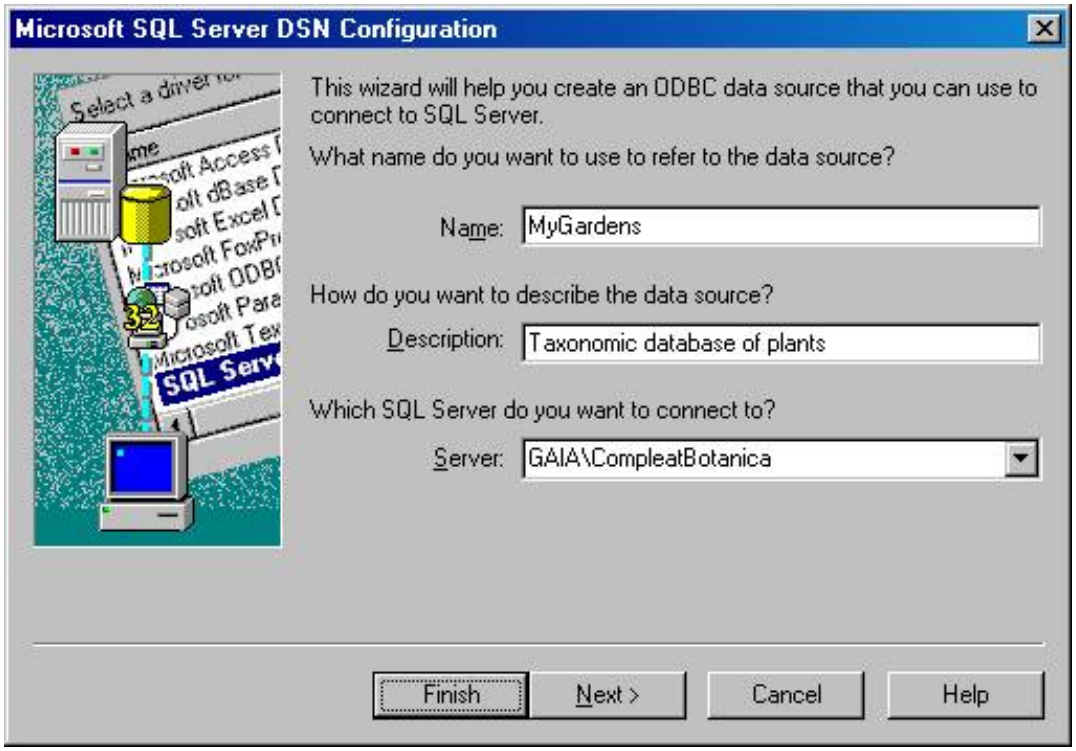
2

The **Name** is required.

The **Description** is optional.

Which SQL Server do you want to connect to? should be the SQL Server Desktop Engine with a name ending in "\CompleatBotanica"(The prefix is your computer name).

Press the **Next** button.



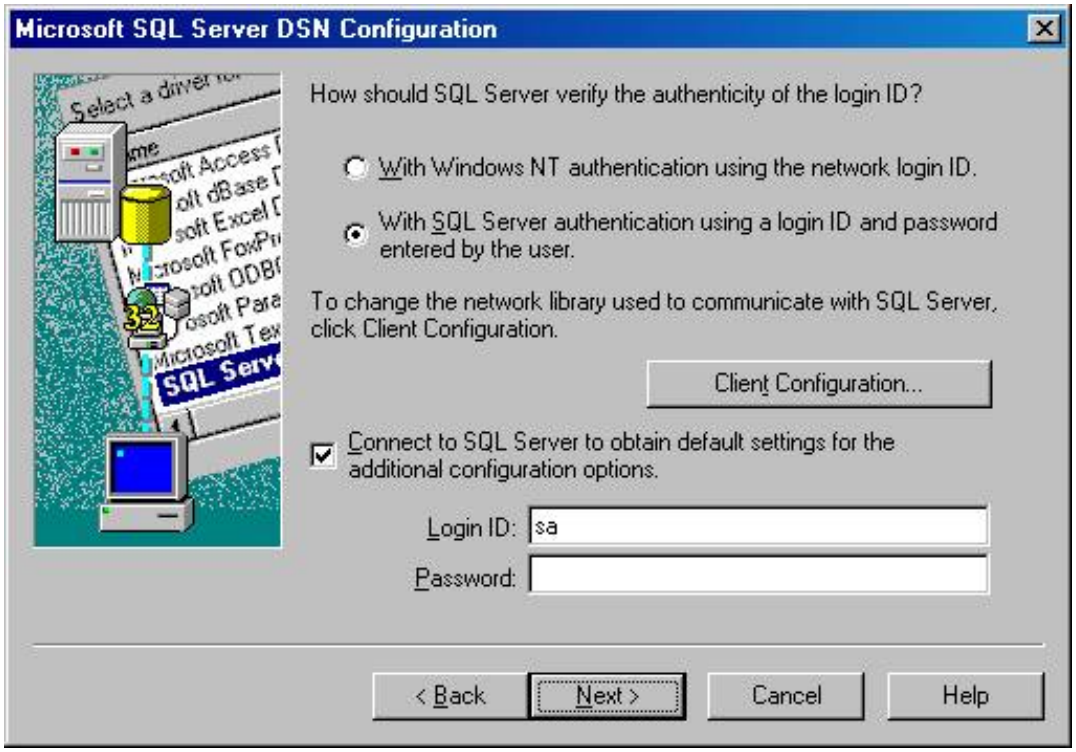
3

Ensure that the second button is selected – **"With SQL Server authentication using a login ID and password entered by the user."**

Ensure that the **Login ID** is "sa" (This is the System Administrator ID).

Ensure that the **Password** is empty.

Press the **Next** button.



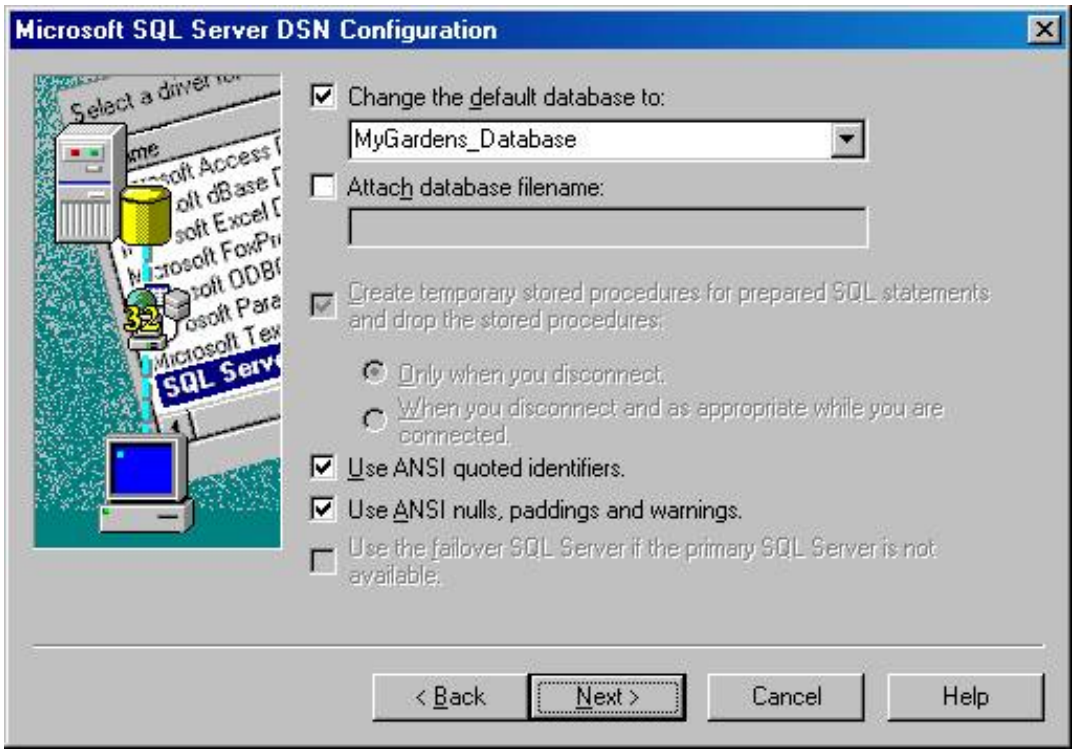
4

Ensure that the box labeled: **"Change the default database to"** is checked.

Use the drop-drop combo-box to select the existing database that you are making this ODBC entry for.

Leave all other buttons on this screen at their default values.

Press the **Next** button.



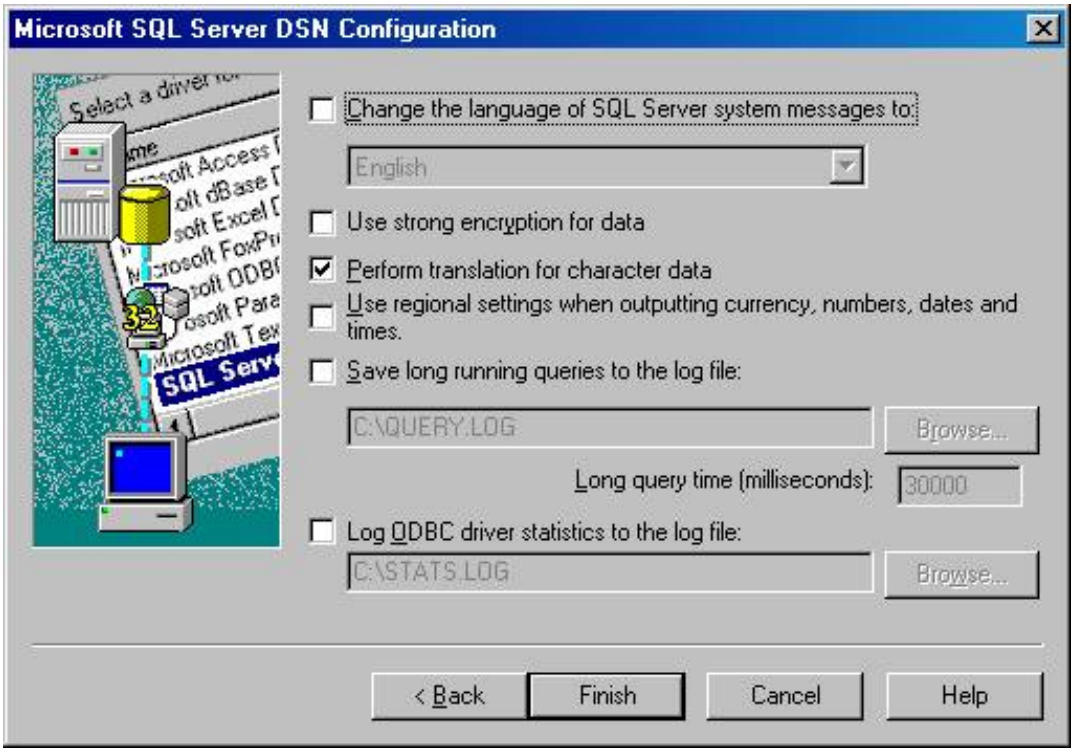
This message means that the database you've selected is no longer valid. You should delete this ODBC data source name and restore a backup copy of your database.

5

Leave all options on this screen as they are.

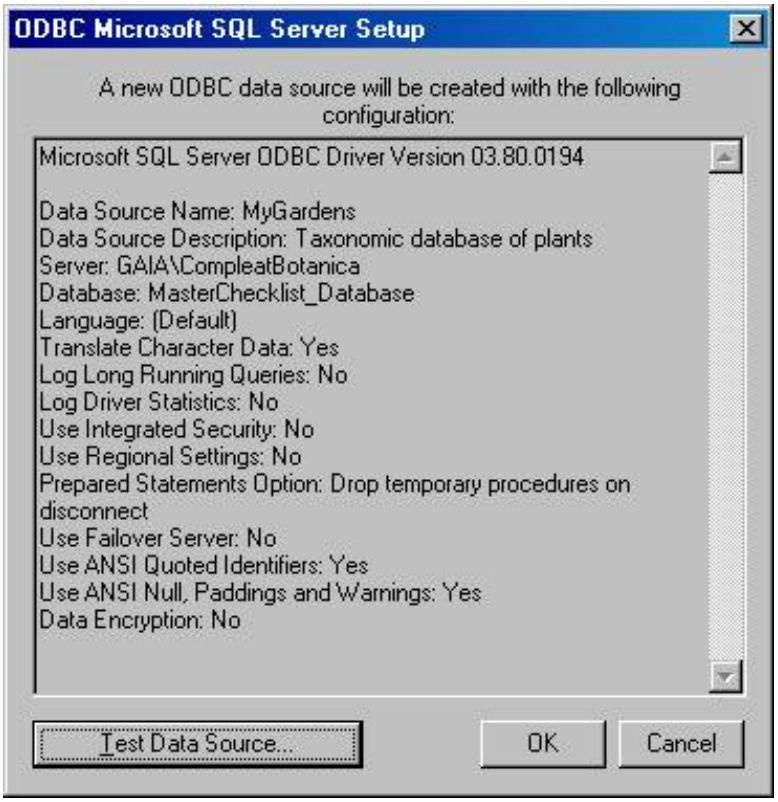
Press the **Finish** button.

6



Press the **Test Data Source** button.

7



8

Verify that the "Tests Completed Successfully."

Press the **OK** button.