

How to connect to Microsoft SQL Server

Question: I have a personal version of Microsoft SQL Server. I tried to use Limnor with it and failed. I do not know what to type for the Server Name. I typed “local”, but it did not work.

Answer: In short, you need to type in “(local)”, instead of “local” for Server name if you want to connect to a SQL Server in the local computer. Below, I’ll provide a detailed step by step description on how to use Microsoft SQL Server databases in Limnor.

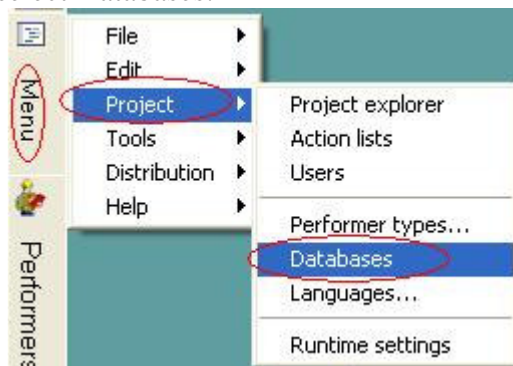
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Create a database connection

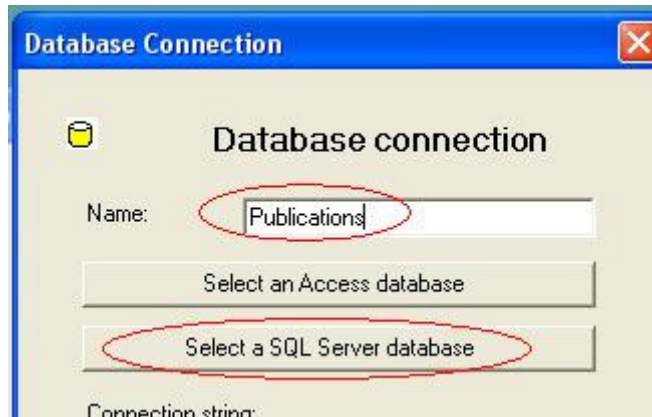
Before you may use any database in Limnor, you need to create a database connection for it. Select Project menu, select Databases:



Click Add button to add a new database connection:

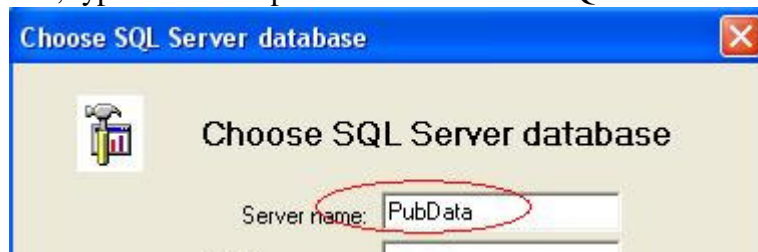


You need to type in a database connection name. You may give it any name you want. Usually you give a name to describe what this database connection is used for. Here suppose we call it “Publications”:

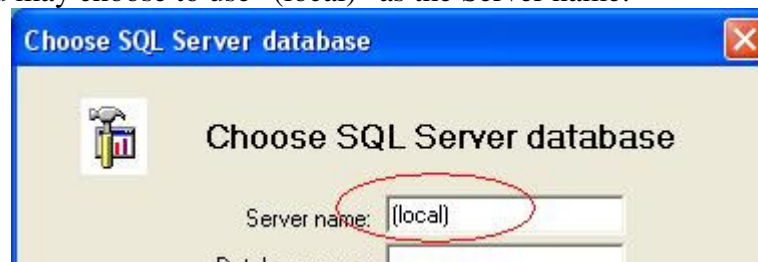


Click “Select a SQL Server database” button to specify which SQL Server we want to connect to.

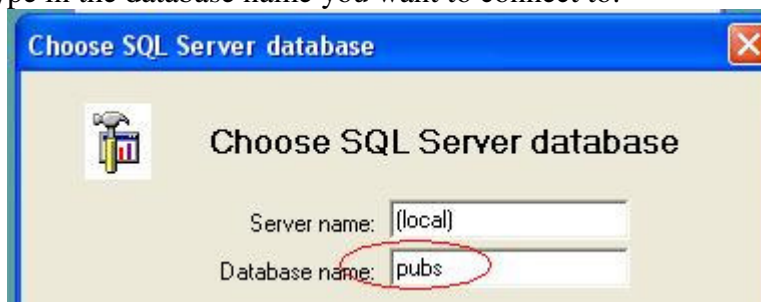
For “Server name”, type in the computer name where the SQL Server is installed:



If you want to connect to the SQL Server on the same computer on which this application is running, you may choose to use “(local)” as the Server name:



You need to type in the database name you want to connect to:



Note that Limnor will not search the database name for you, and Limnor will not provide database schema management for Microsoft SQL Server. This is because that Limnor has no rights to distribute SQL Server with it, and if you SQL Server, you may always use SQL Server Enterprise Manager to view the database names and change database schema.

Next, you need to decide if you want to use “Trusted Connection” to connect to SQL Server or not. If you check “Use trusted-connection” option, you will be using Windows

authentication to connect to the SQL Server. That means the SQL Server must give permissions to the computer on which your Limnor application is running:



The screenshot shows a dialog box titled "Choose SQL Server database". It contains the following fields and options:

- Server name: (local)
- Database name: pubs
- Use trusted connection
- User name: (empty)
- Password: (empty)
- Repeat password: (empty)
- OK button
- Cancel button

Notice that the User name and Password are disabled because they are not needed when you are using trusted connection.

If you do not use trusted connection, then the SQL authentication is used, and you must use a SQL Server user account for this connection:



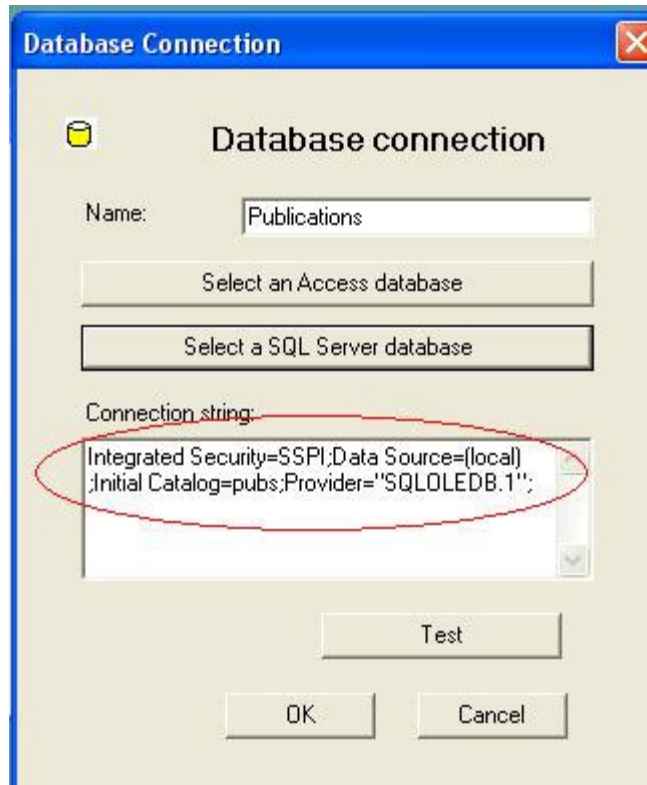
The screenshot shows the same dialog box, but with the following changes:

- Use trusted connection
- User name: sa
- Password: (masked with asterisks)
- Repeat password: (masked with asterisks)

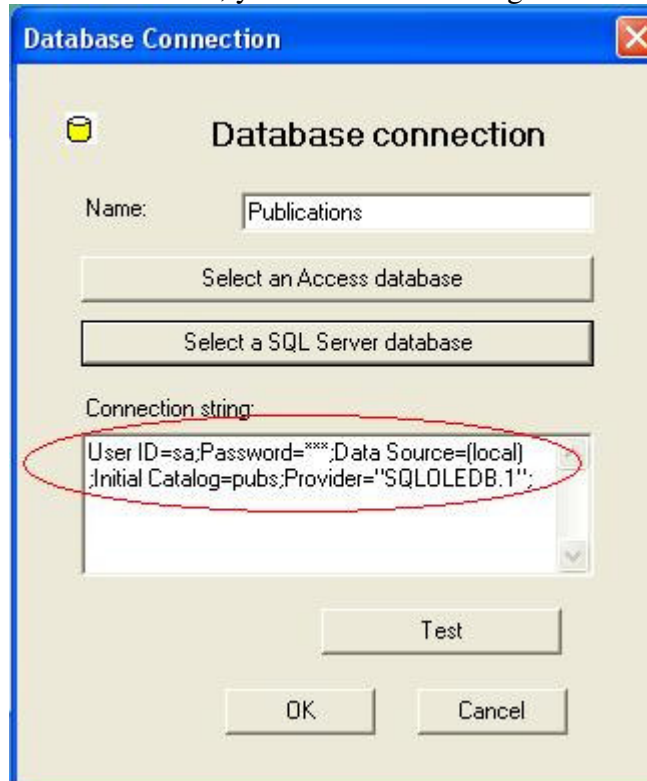
Limnor encrypts the password so that when you distribute your applications to your users, your passwords are not visible.

That is all you need to set for a SQL Server database connection. Click OK button, Limnor will prepare the connection string for you.

If you use trusted connection, the connection string looks like following:



If you do not use trusted connection, your connection string looks like following:

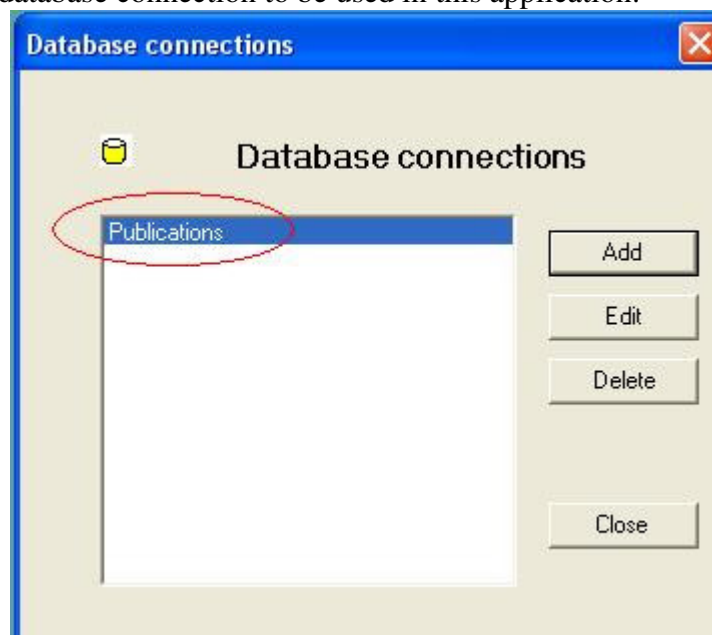


Note that the above connection strings prepared by Linnor are the minimum requirements for a connection string. You may add other optional parameters to the

connection string by directly type into the text box. For example, add connection pool number settings, add timeout settings, etc. For more details, see your SQL Server manual. Click Test button to test if the connection string is working. If you type in a wrong server name, the testing may take a long time because SQL Server is trying to find on the network the name you type in. You have to wait for it to popup a message box saying server does not exist. If you give all parameters correctly, you will instantly get the following message:



Click OK buttons to finish the database connection setting.
Now we have a database connection to be used in this application:



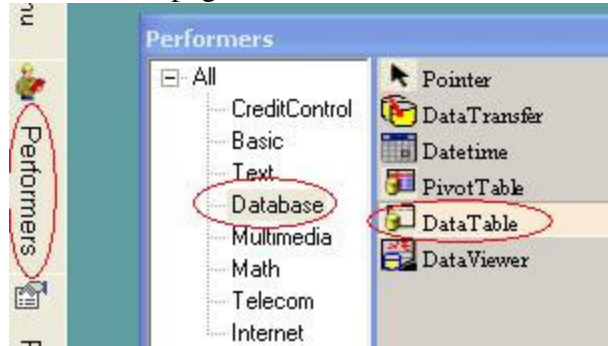
You may click Add button to add more database connections, click Edit button to change the settings for existing connections.
If you are done, click Close button.

Using data

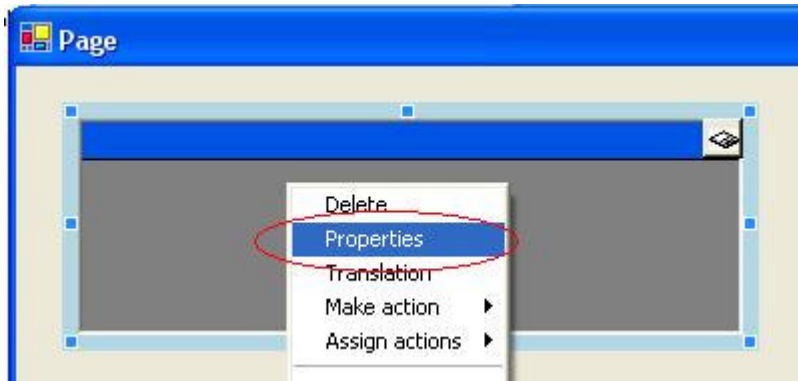
The way to use data from SQL Server is exactly the same as that from other databases. In Limnor, the only difference in using different databases, be it Microsoft Access, SQL Server, Oracle, etc., is in the connection string. Therefore this section is not specific to the topic of using SQL Server in Limnor.


You may use Data Table performer or Pivot Table former to fetch data. You may use Data Transfer performer to transfer data between tables, between databases, between computers, or between countries.

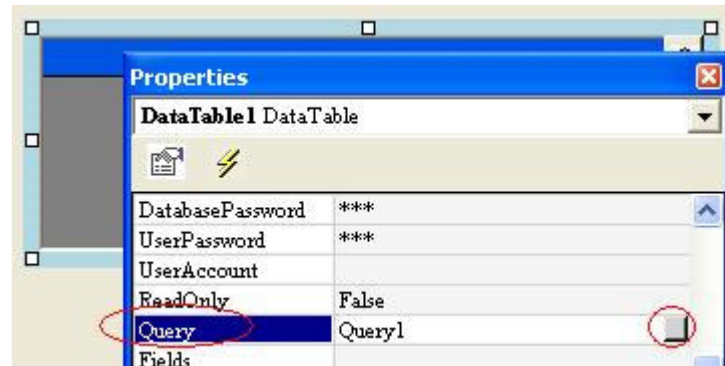
To use Data Table performer, click Performers, drag and drop a Data Table performer from the Performers window to a page:



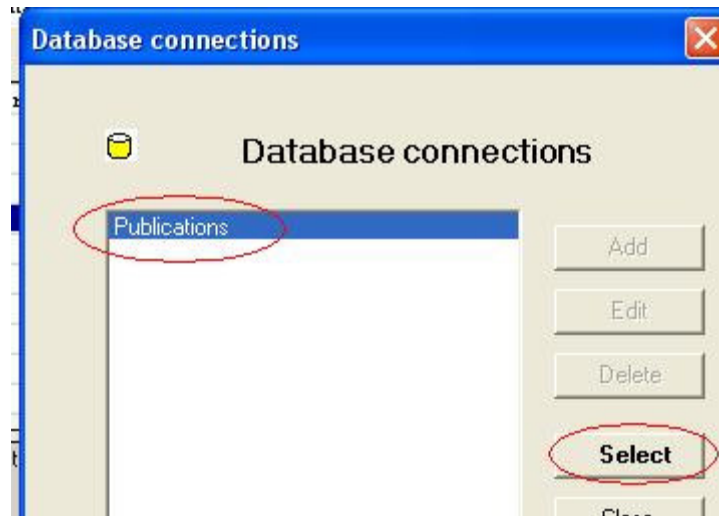
A new Data Table performer appears on the page as a grid box. Right-click on it and select Properties:



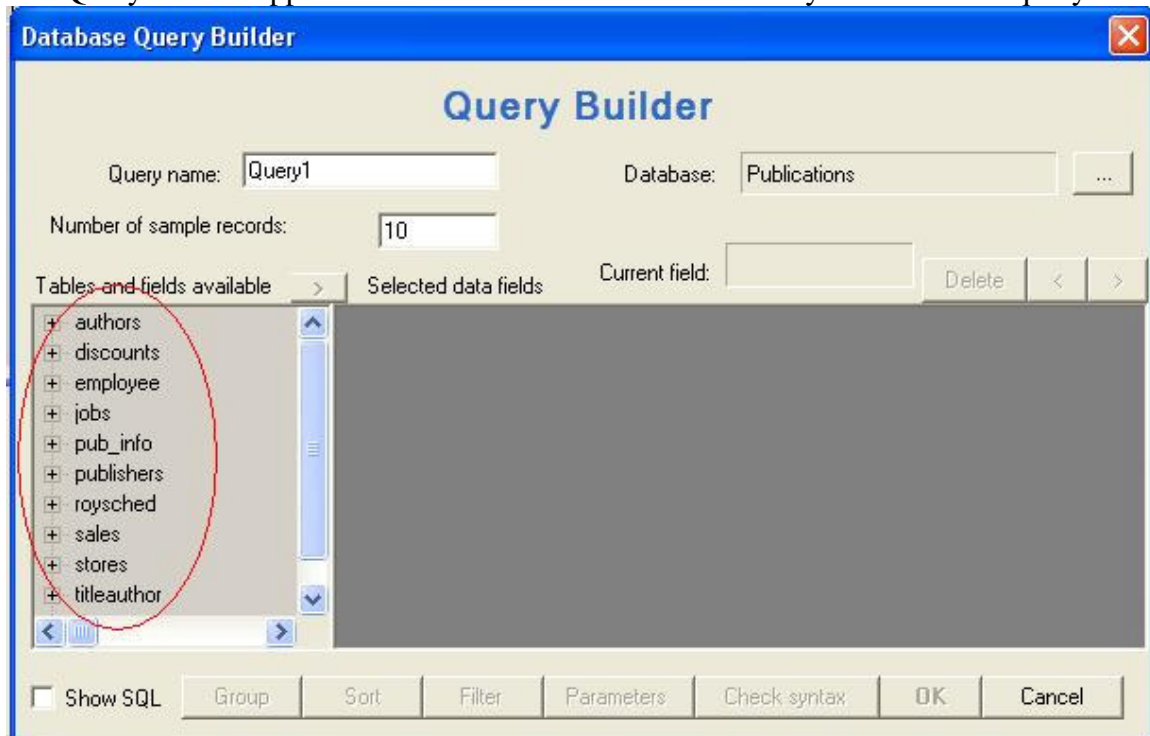
Its properties window appears. Select Query property, click  button to build database query:



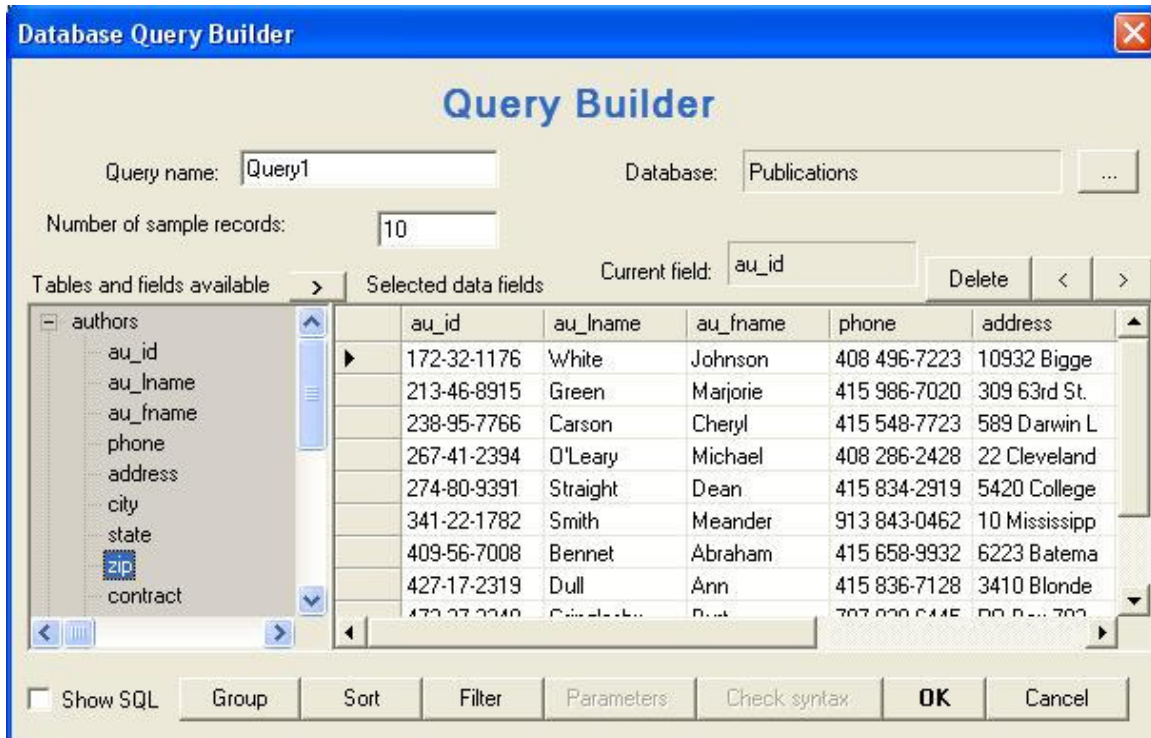
It let you select a database connection for this query. We just created one database connection named Publications, which is connected to a SQL Server database. We select it and click Select button;



The Query Builder appears. It lists all the tables and fields for you to build the query:



Let's choose some fields from authors table. Click + beside authors to show its fields. Double-click on the fields to use it in the query:



On the Query Builder, “Number of sample records” is 10. That means it only shows the first 10 records of the query for your review purpose inside Query Builder.

You may choose from many tables and join them differently to form your query. You may add filters with parameters, you may sort the query result, you may create grouping query to show sums and other aggregate functions. We will not go into these topics. You may download other articles from <http://www.limnor.com>

Click OK button, the query result is shown in the Data Table performer:

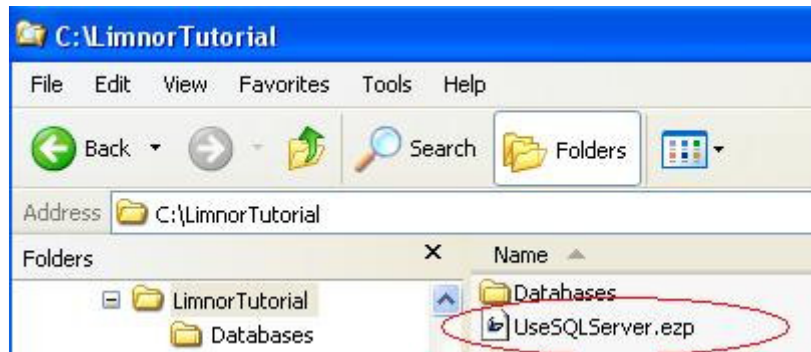


Because this query returns all records in the authors table, the number of records show in the Data Table is large. To reduce the number of the records, you may add filters to the query. You may click Filter button on the Query Builder to do so. See other articles from Limnor web site.

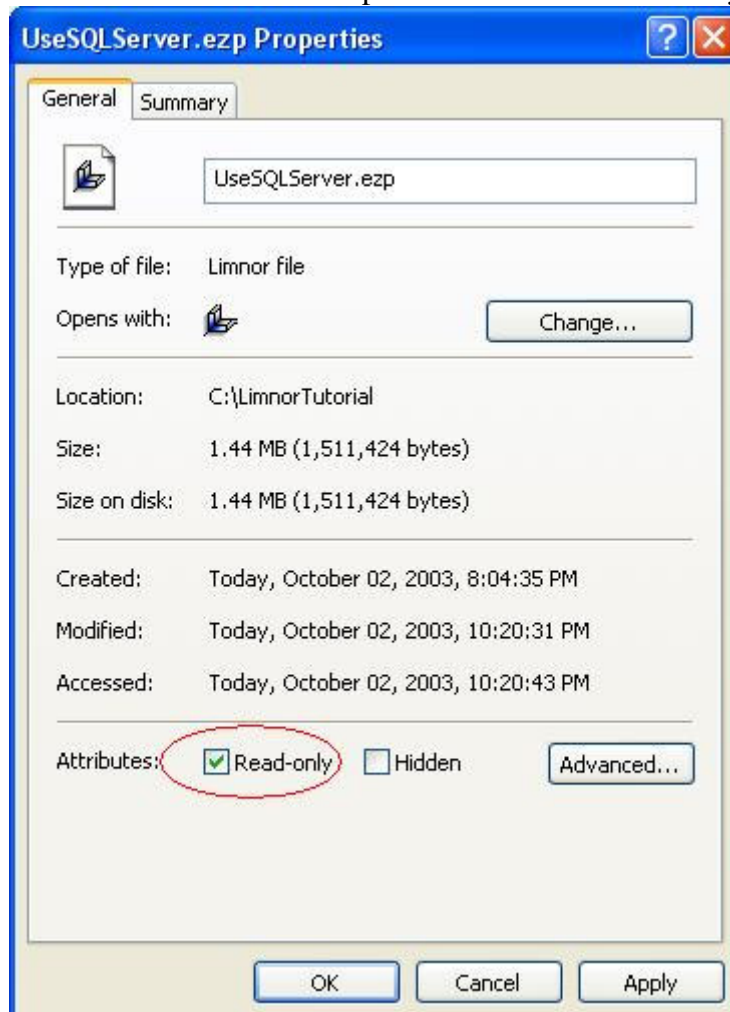
Setting Connections at Runtime

When your application is distributed to your clients, the SQL Server to be used may not be the same as you used on your development computer. You need to set the database connections to use the right servers.

First, let's check your Limnor application file is read-only on your client computer. When you use Limnor's distribution feature to distribute your application to your client, Limnor will set it to read-only for you. You may double-check to make sure it is done. Find the application file (in this example, it is UseSQLServer.ezp) in the folder your client installed it:



Right-click on the file name and choose Properties. Check that Read-only is checked:



Double-click the application file to run it. While your application is running, press F2 to set the runtime settings. If you did setup a user account, the first time you press F2, it will ask you to create an administrator account:

Set up administrator

Create administrator

Log in name:

Choose an alias as the log in name for this account

Password:

Type the password of your choice twice into the above two text boxes.

Administrator accounts have the permissions to carry out all activities. To enable security features for your application, there must be at least one administrator account.

OK

Cancel

The next time you press F2, it will ask you to log in:

User log in

Log in

Log in name:

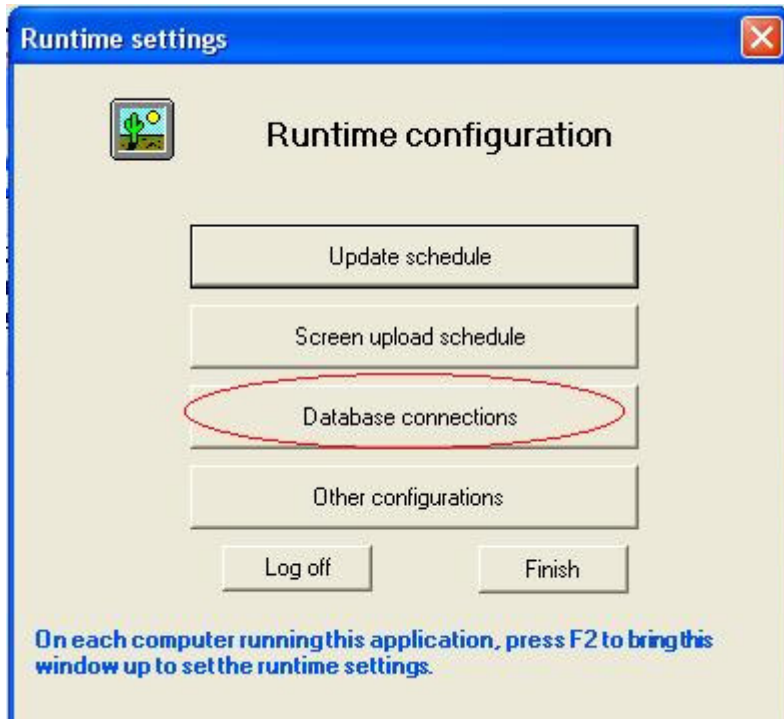
Password:

OK

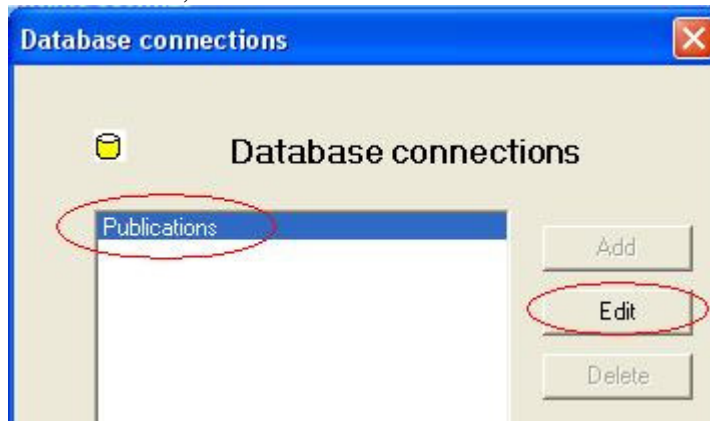
Cancel

To edit update schedule, you must log in as an administrator

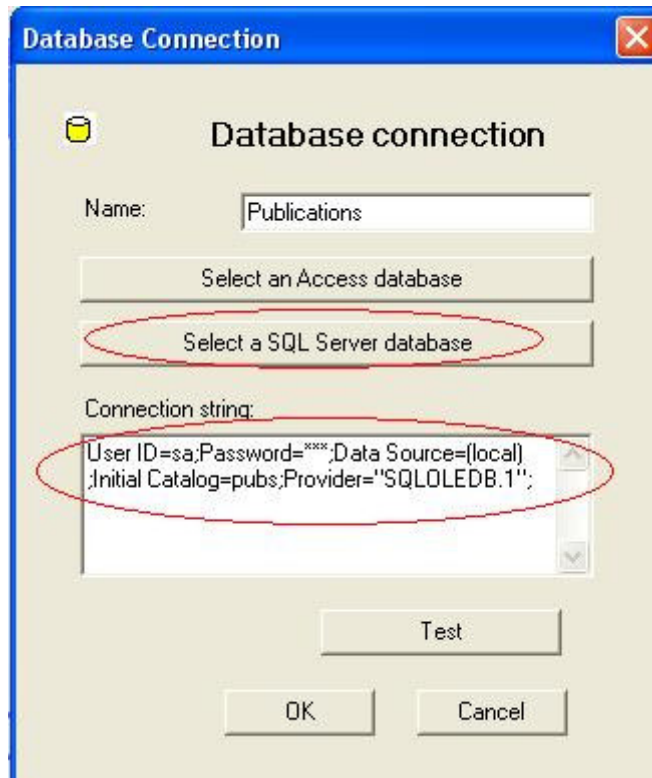
Once you logged in, you may set all the runtime settings. Click Database connections:



Select the database connection, click Edit button:



The database connection dialogue box appears:



We have used this dialogue box before. Here, you may simply change the connection string to use the right SQL Server name. Or you may click “Select a SQL Server database” button to re-build the connection string. We do not go into the details again.