

How to Use Firebird

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Firebird Database Engine

Let's copy some information from the Firebird web site for introducing the Firebird database engine:

Firebird is a relational database offering many [ANSI SQL standard features](#) that runs on Linux, Windows, and a variety of Unix platforms. Firebird offers excellent concurrency, high performance, and powerful language support for stored procedures and triggers. It has been used in production systems, under a variety of names, since 1981.

More information can be obtained from the Firebird web site, i.e.

<http://www.firebirdsql.org/index.php?id=about-firebird&nosb=1>

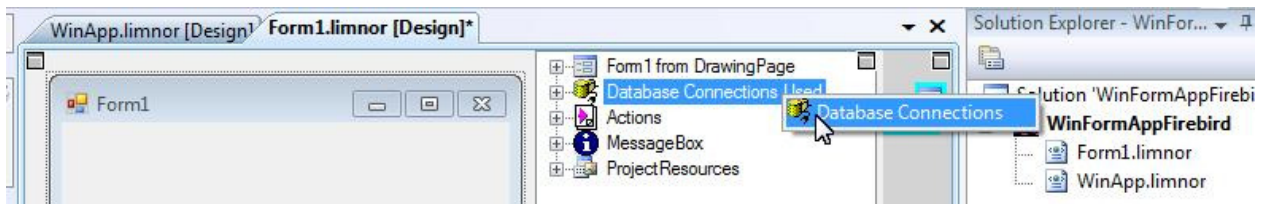
Using the Firebird ODBC driver in Limnor Studio failed due to some unsupported SQL statements. Loading the Firebird ADO.Net drivers dynamically also failed.


It works when compiling the Firebird ADO.Net driver for .Net 3.5 into Limnor Studio. Thus Limnor Studio lists Firebird as one of the pre-loaded database engine.

This document describes how to select the Firebird database engine and make configurations.

Create a Firebird Connection

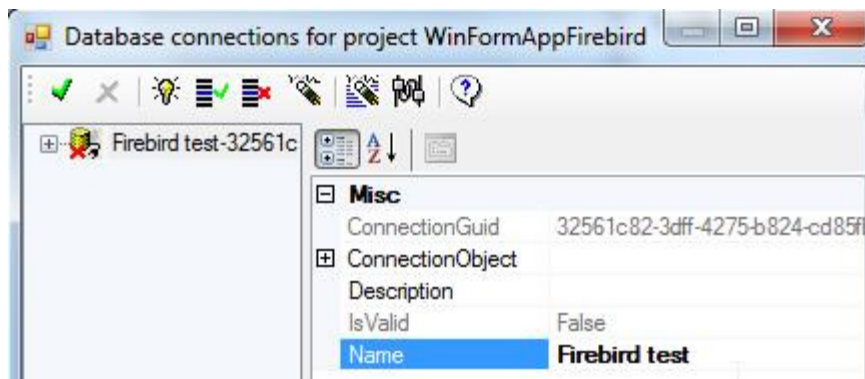
To create a new database connection, right-click "Database Connections Used" in the Object Explorer and choose "Database Connections":



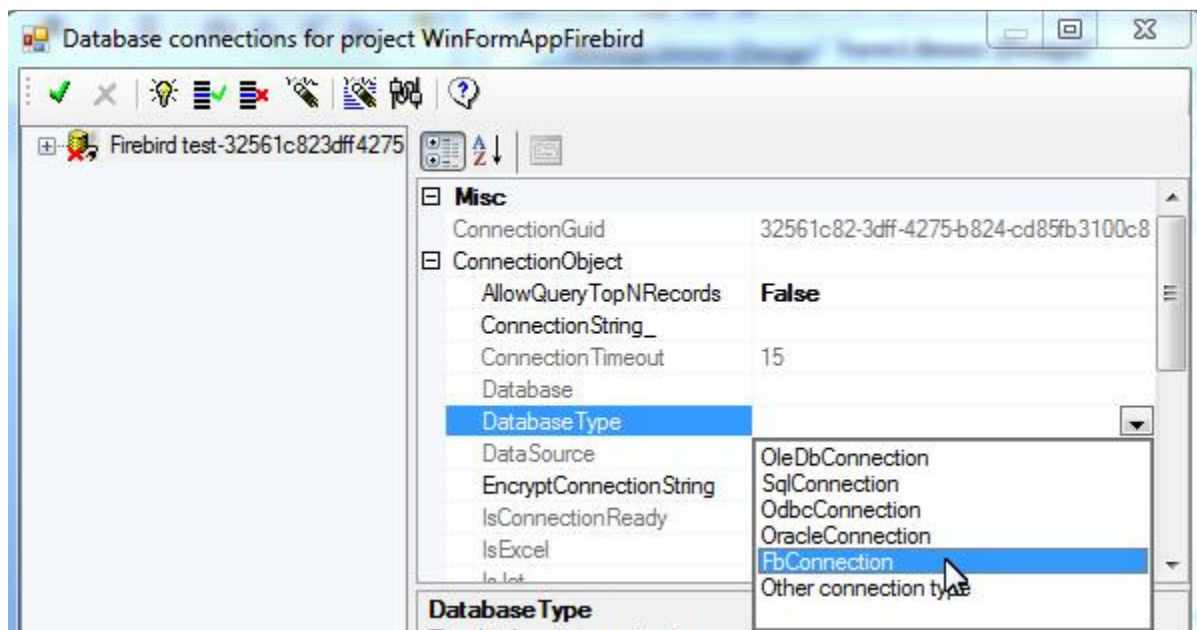
Click the “New” button  to create a new database connection:



Give a name to the new database connection:

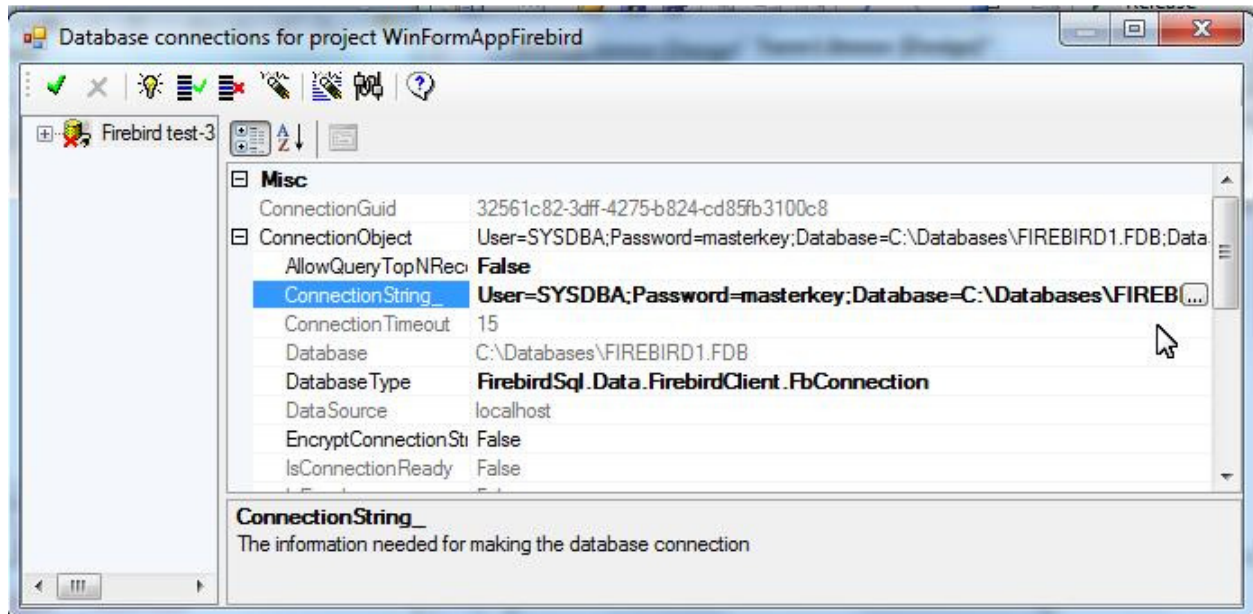


Select FbConnection for the DatabaseType:



For our example, we want to connect to a Firebird database at C:\Databases\FIREBIRD1.FDB in the local computer. So, we use the following connection string:

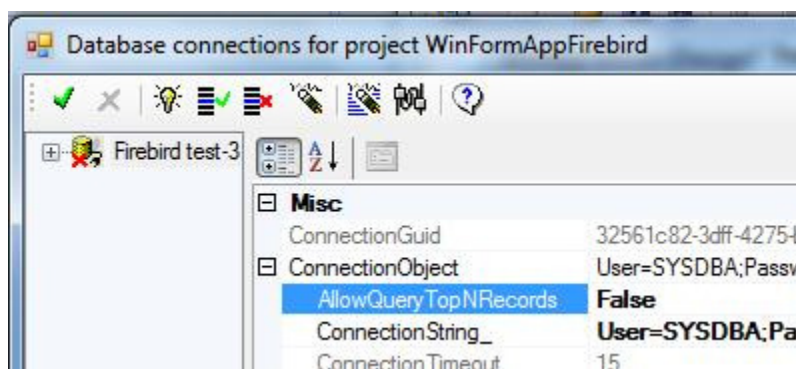
```
User=SYSDBA;Password=masterkey;Database=C:\Databases\FIREBIRD1.FDB;DataSource=localhost;
Port=3050;Dialect=3; Charset=NONE;Role=;Connection lifetime=15;Pooling=true;
MinPoolSize=0;MaxPoolSize=50;Packet Size=8192;ServerType=0;
```



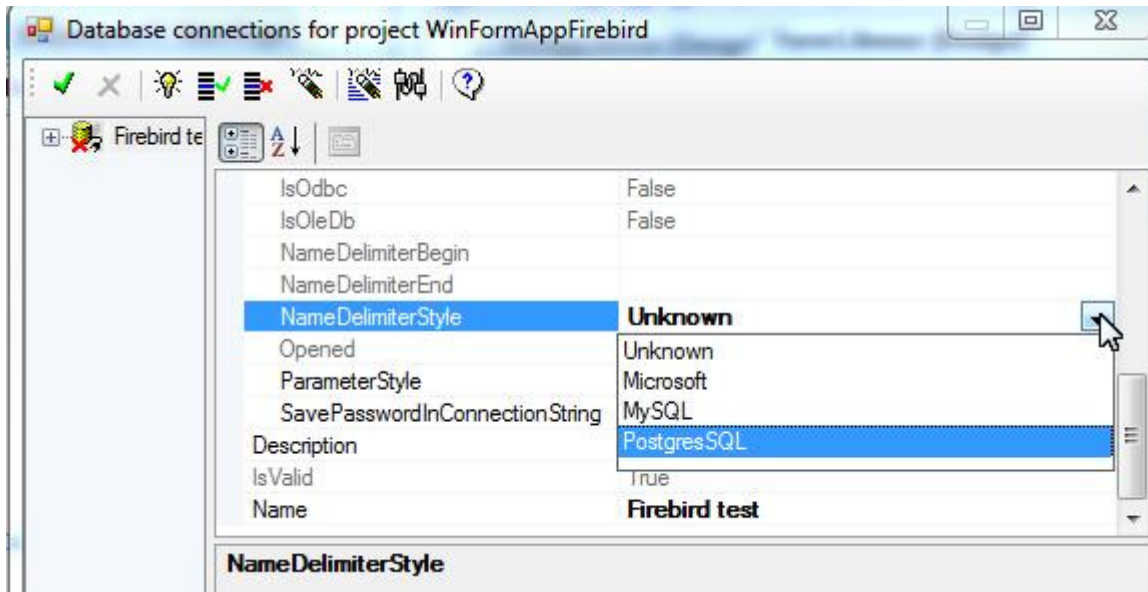
In the connection string, User and Password are the credential for the database; Database is the database file path; DataSource is the computer where the database file is stored. For more information about the parameters in the connection string, contact the Firebird team <http://www.firebirdsql.org>

Other properties for the connection:

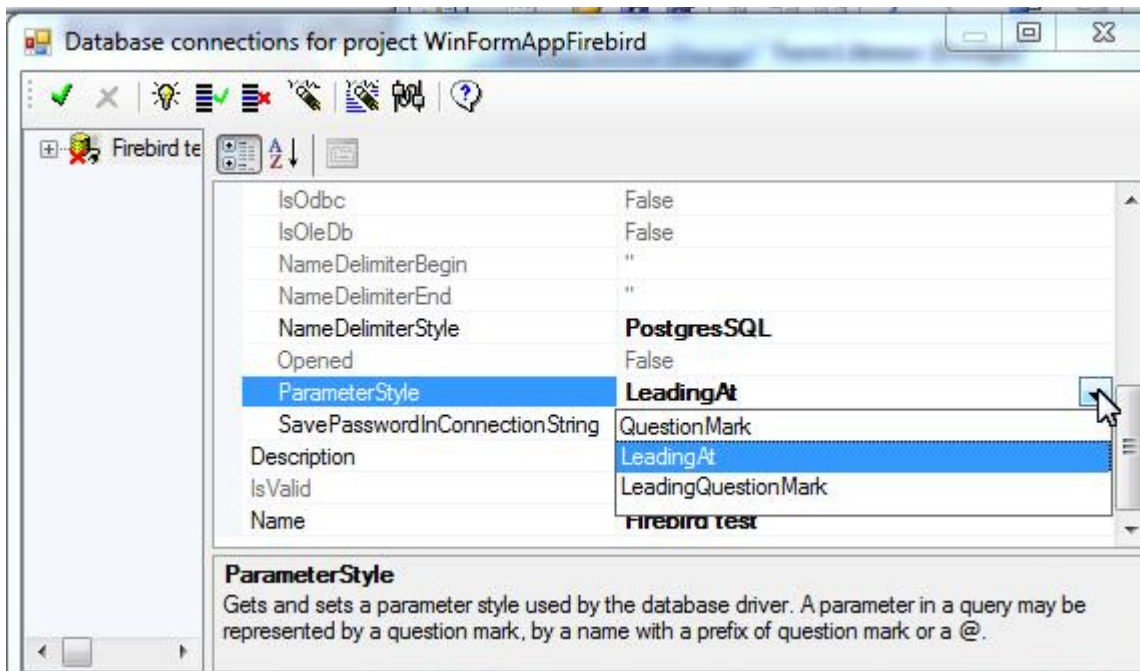
AllowQueryTopNRecords – It must be set to False because Firebird does not support “Select top N” syntax.



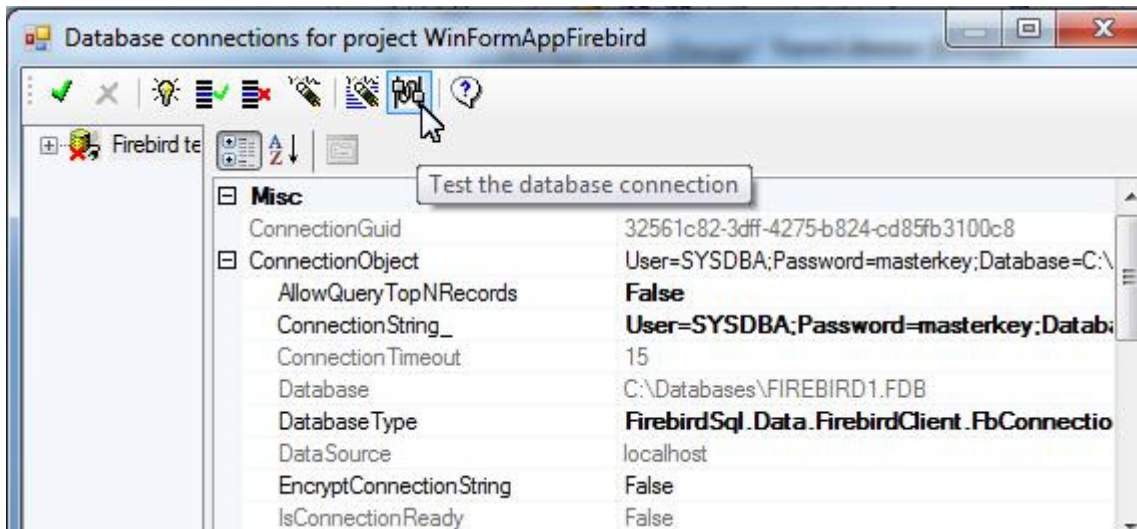
NameDelimiterStyle – It must be Unknown or PostgreSQL because the name delimiter supported by Firebird is double-quote, the same as that supported by PostgreSQL.



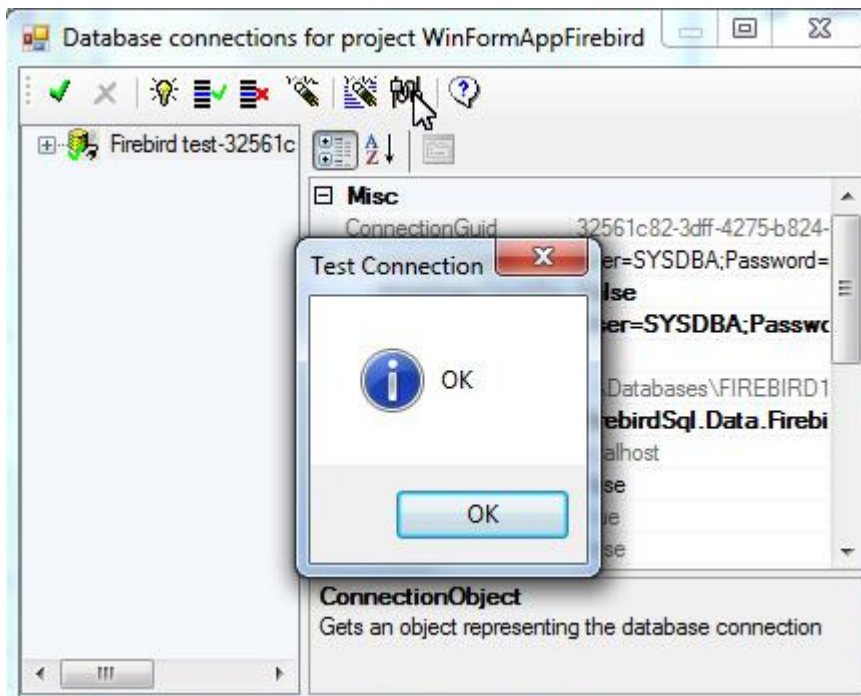
ParameterStyle – LeadingAt should be used:



We may test the Firebird connection by clicking the “Test” button:



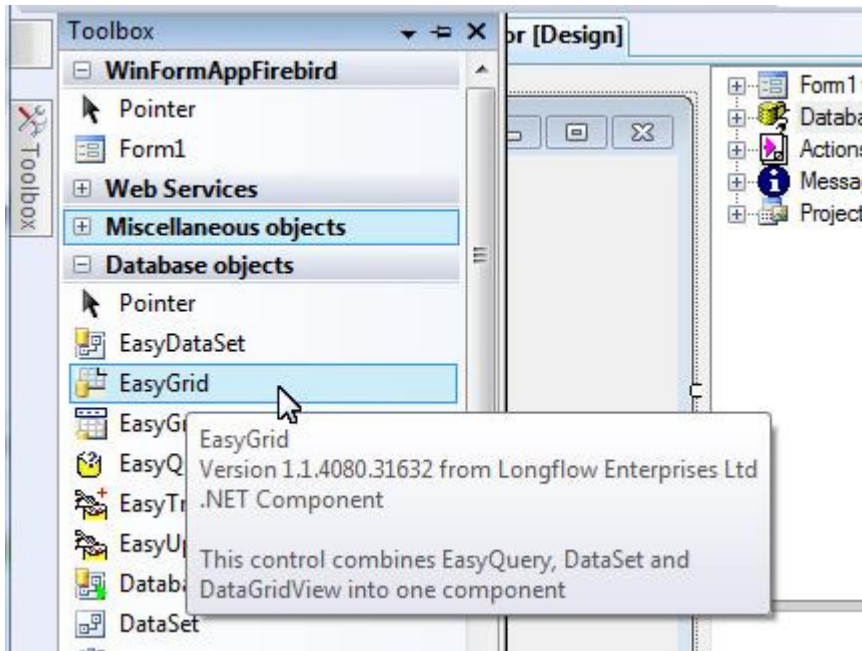
If the parameters are correct then the test shows OK:



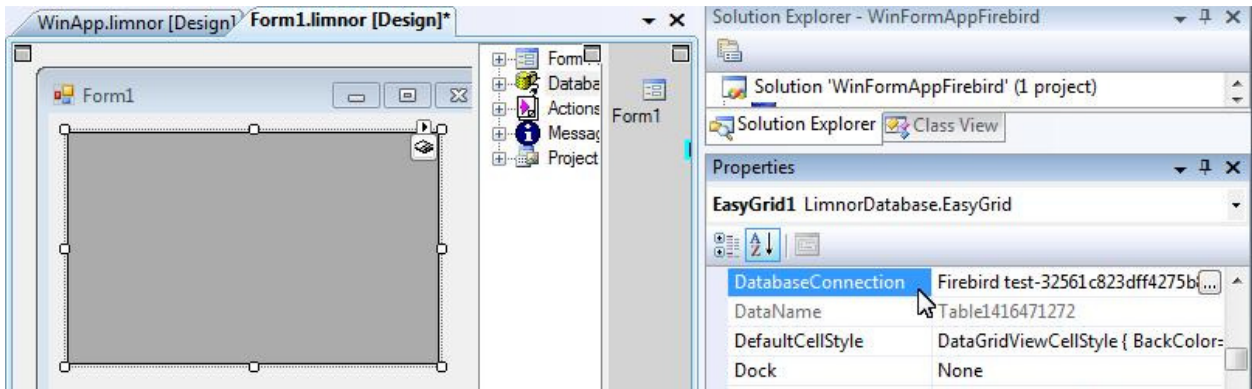
Use Firebird Connection

Once we have a Firebird connection, the rest of database application programming is the same as for any other database connections.

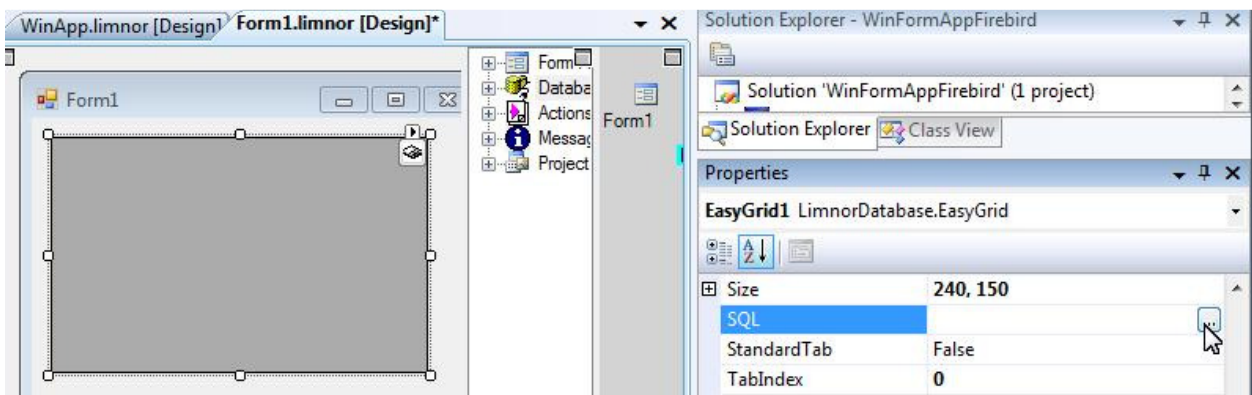
For example, we may use an EasyGrid for displaying/editing data in a grid. Drop an EasyGrid to the form:



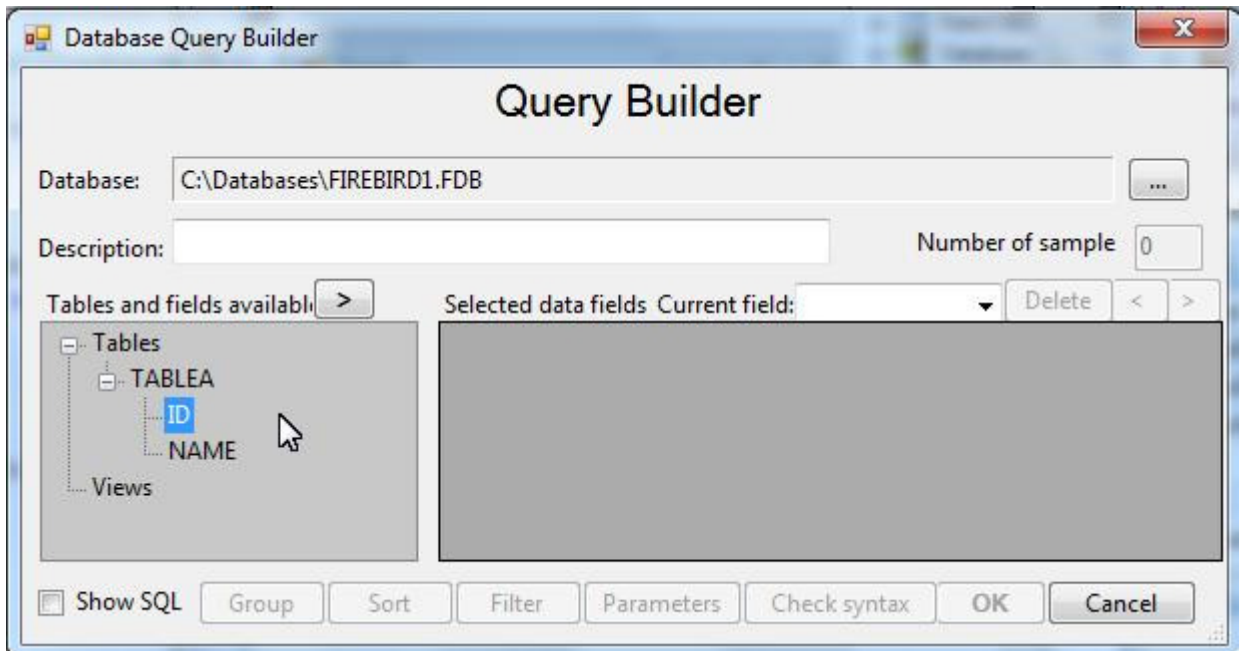
An EasyGrid appears on the form. Note that the database connection we created before is automatically assigned to the DatabaseConnection property of the new EasyGrid.



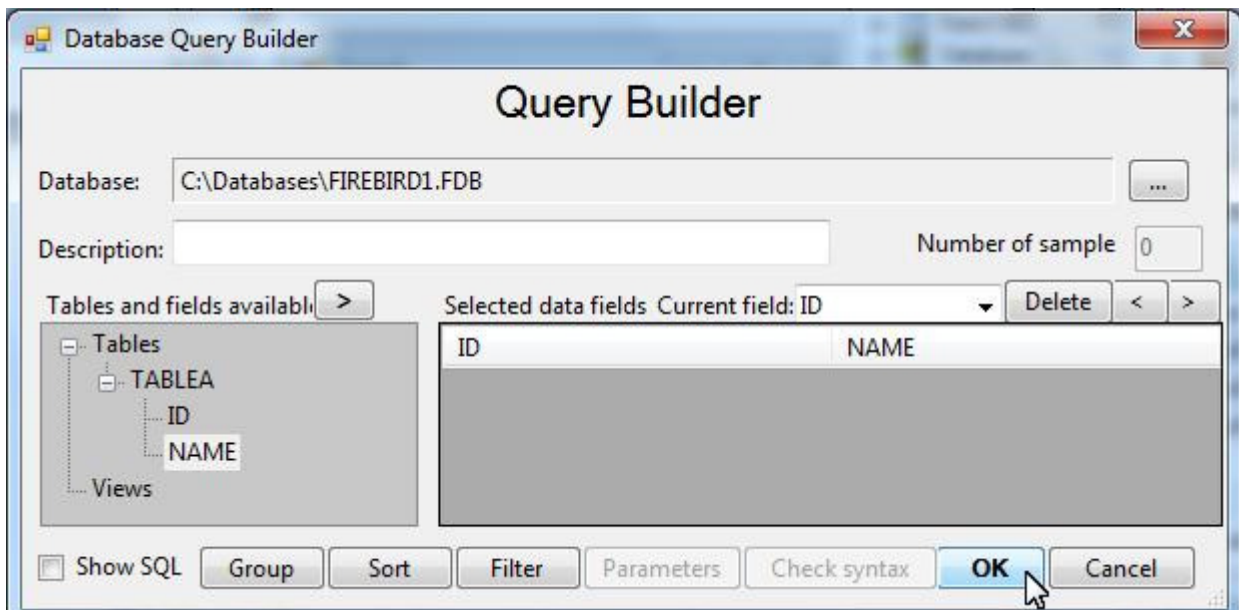
We may set its SQL property to build a query to get data from the Firebird database:



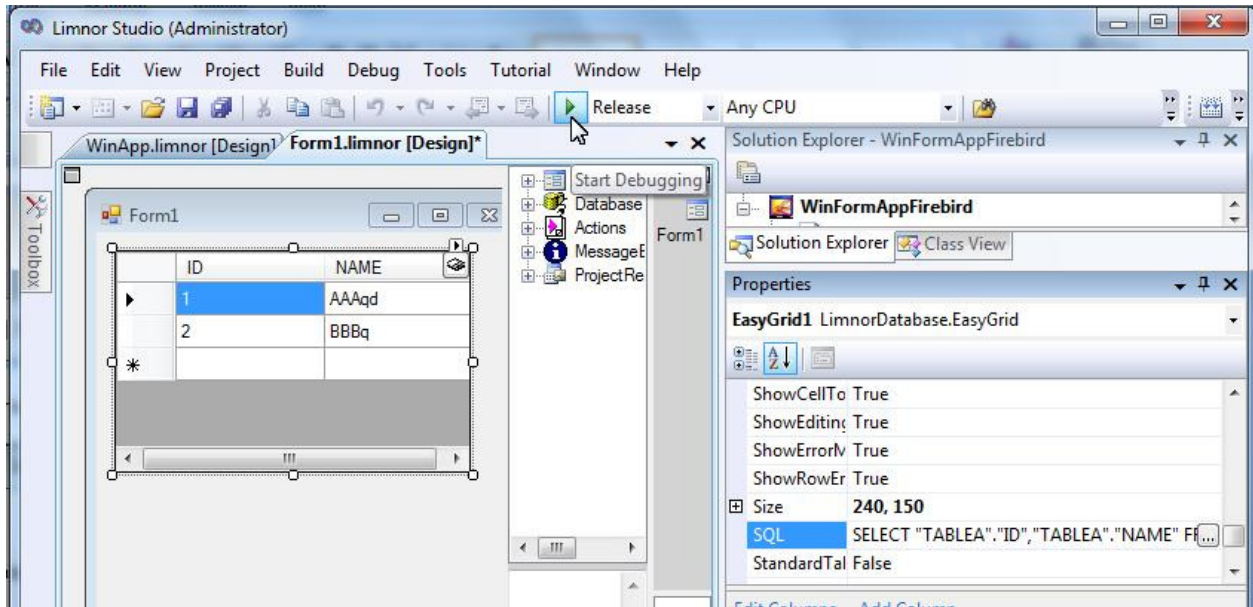
Use the Query Builder to select the fields we want to fetch data from:



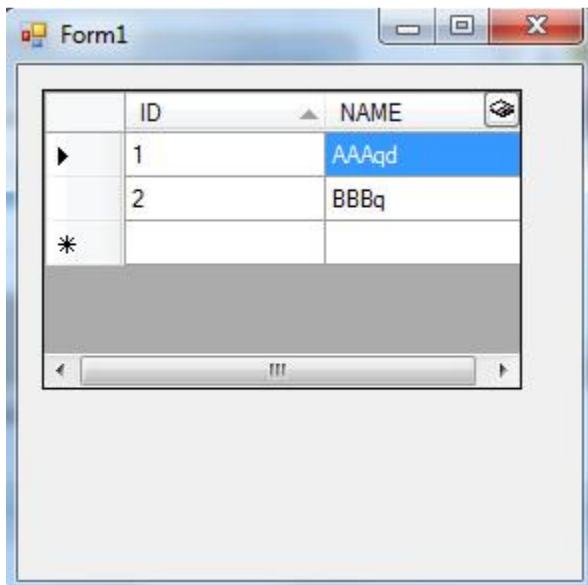
For this simple example, we choose the ID and NAME:




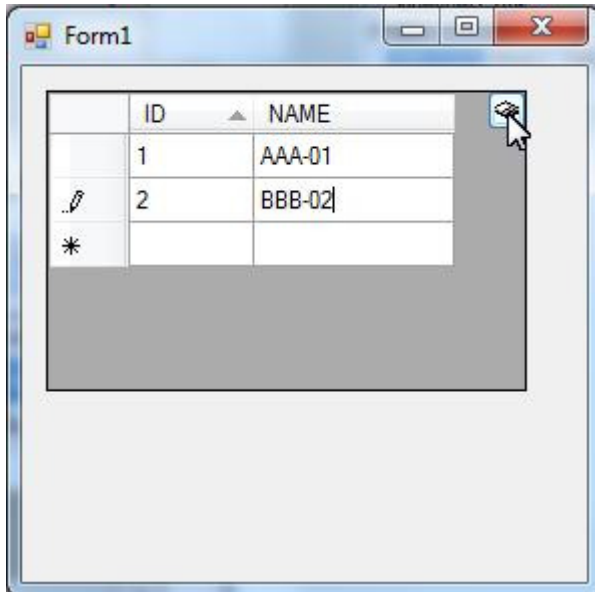
We may test the application now:



The form appears and shows the data from the Firebird database:



We may modify the data and click the “Save” button  to save the modifications to the Firebird database:



Note that the contents of this chapter have nothing to do with Firebird because that the programming of using the databases is the same for all kinds of databases. You may read other Limnor Studio database programming documents for how to use databases.