

# WebPascal script model tutorial - Database related

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Whether it is a website or an interface, it is inseparable from the operation of data display or processing. The script model uses the FireDAC component in Delphi to connect and operate the database. Currently, only the msaccess, mssql and oracle support is added to the script model. Of course, adding support for other databases is a relatively simple matter, but note that FireDAC does not help you with the drivers required for database connections, so you need to install the drivers yourself when you connect to the corresponding database, for example in win64. In the bit environment, connecting msaccess requires installing the corresponding driver, such as connecting oracle, you also need to install it yourself.

Oracle client or bring a few dll dynamic library files.

The following functions for manipulating the database are provided, namely DBConn, DBExec, DBQuery, DBQueryToJson, DBQueryToTxt, and

DBQueryToExcel, before using, you need to use DBConn to define the data source, that is, what database to connect to, you can refer to the following settings:

```

1  <?
2 // Connection string to connect to the MSAccess database
3 $s:=DBConn('mydb','DriverID=MSAcc;Database=.\db.mdb';
4
5 // Connection string to connect MSSQL2000 database odbc mode
6 // $s:=DBConn('mydb','DriverID=MSSQL2000;Server=127.0.0.1;Database=test;User_name=sa;Password=;';
7 // $s:=DBConn('mydb','DriverID=MSSQL2000;Database=test;Server=127.0.0.1;OSAuthent=Yes;');
8
9 // Connection string connecting MSSQL2000 and above database
10 // $s:=DBConn('mydb','DriverID=MSSQL;Server=127.0.0.1;Database=test;User_name=sa;Password=;';
11 // $s:=DBConn('mydb','DriverID=MSSQL;Database=test;Server=127.0.0.1;OSAuthent=Yes;');
12
13 // The connection string to connect to the mysql database requires libmysql.dll and libmysqld.dll support,
14 // please see the separate demo mysql.api
15 // $s:=DBConn('mydb','DriverID=MySQL;Database=mysql;Server=127.0.0.1;Port=3306;User_name=root;');
16
17 // Connection string connecting ORACLE database Requires oci.dll, oraocci11.dll, oraociei11.dll,
18 // orasql11.dll support
19 // $s:=DBConn('mydb','DriverID=Ora;Database=OraSrv:1521/orcl;User_name=ADDemo;Password=a;');
20 + 'Pooled=True;POOL_CleanupTimeout=30000;POOL_ExpireTimeout=90000;POOL_MaximumItems=200;');
20 ?>

```

The above is the setting of some data sources. For other details, please refer to the description of FireDAC. Examples of use are as follows:

```

1  <?
2  // Initialize the data source
3  include('/Database related demo/conn.cfg');
4
5  //Query
6  '<font color="#FF0000">Query: Query and return data (DataSet) </font> DBQuery<br>'
7  // For example, 3 parameters, the first is the data source, the second is the sql statement, 3 is p1, 4 is
p2 ...
8  $x:=DBQuery('mydb','select * from tuser where fid>:p1',0);
9  (*
10    fid fuser fpwd fname
11    1 admin admin admin
12    2 test test test
13  *)
14  if $x.EMPTY then
15  begin
16    'No data available'
17  end else
18  begin
19    $x.first;
20    while not $x.eof do
21    begin
22      'row ' $x.row+1 ':'
23      for $i:=0 to $x.fieldcount-1 do
24      begin
25        $x($i);
26        if $i<$x.fieldcount-1 then ', ';
27      end;
28      '<br>'
29      $x.next;
30    end;
31  end;
32
33  '<br><font color="#FF0000">Query: Query and return data to json </font> DBQueryToJSON<br>'
34  UnicodeToAnsi(DBQueryToJSON('mydb','select * from tuser'));
35
36  '<br><br>'
37  '<font color="#FF0000"> Query: Query and return data, save as a file, and return to the download link
</font> DBQueryToExcel<br>'
38  DBQueryToExcel('mydb','select fid as fid,fuser as username,fpwd as password, fname as names,'
40  +'fage as age,fnote as note from tuser where fuser>:p1','hello');
41
42  '<br><br>'
43  '<font color="#FF0000">Query: Query and return data, save it as a file, and return to the download link </font>
DBQueryToTxt<br>'
44  DBQueryToTxt('mydb','select fid as fid,fuser as username,fpwd as password, fname as names,fage as age,'
46  +'fnote as note from tuser where fuser>:p1','hello');
47
48  //ExecSQL
49  '<br><br><font color="#FF0000">ExecSQL: Execute the SQL statement and return the processing result </font>
DBExec<br>'
50  '<font color="#FF00FF"> Pre-modification data </font><br>'
51  UnicodeToAnsi(DBQueryToJSON('mydb','select * from tuser'));
52  '<br>结果: 'DBExec('mydb','update tuser set fpwd=:p1,fage=:p3 where fuser=:p2','xxoo','test',88);
53  '<br><font color="#FF00FF"> Modified data </font><br>'
54  UnicodeToAnsi(DBQueryToJSON('mydb','select * from tuser'));
55  '<br>结果: 'DBExec('mydb','update tuser set fpwd=:p1,fage=:p3 where fuser=:p2','test','test',3);
56  '<br><font color="#FF00FF"> Post-restored data </font><br>'
57  UnicodeToAnsi(DBQueryToJSON('mydb','select * from tuser'));
58  ?>

```