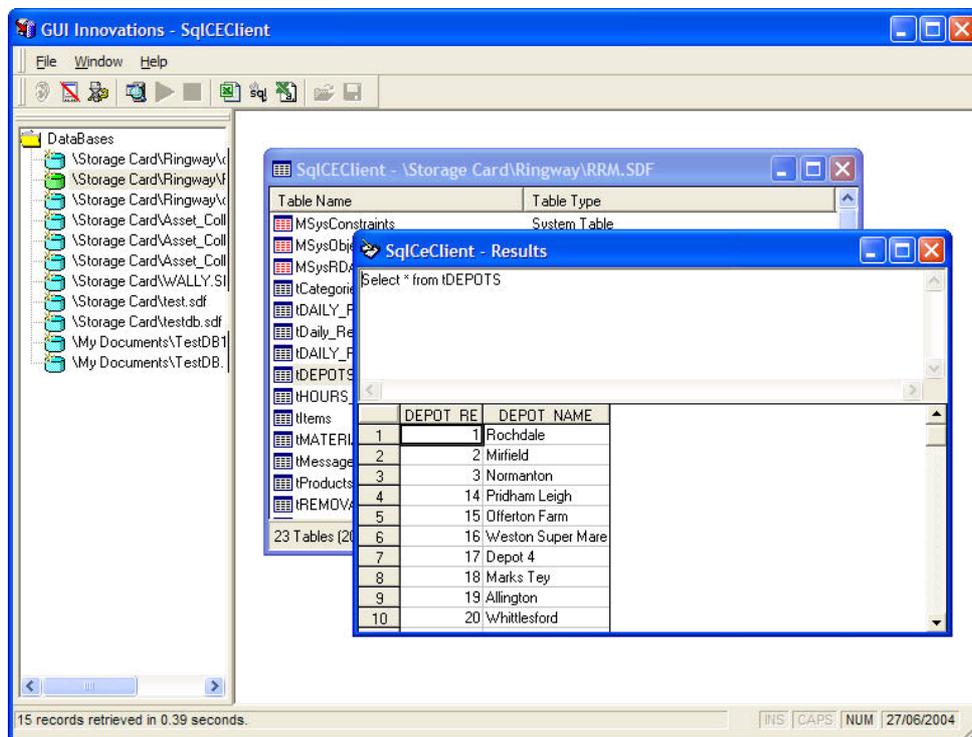


RemoteSQLCeMobile

Another innovative product from



© GUI Innovations Limited, 2006

RemoteSQLCeMobile and RemoteSQLCE.dll allow you to access SQLCe, SQL Mobile, and SQL Everywhere databases directly from your desktop.

Table of Contents

Contents	5
Introduction	5
Components	6
Connection Settings	7
A step by step guide to connecting	8
Porting a database step by step	9
Using on the emulator	12
PC Settings	13
Choosing your database version	14
PC Server	15
PC Client	16
Pocket PC Settings	17
Pocket PC Client	18
Pocket PC Server	19
Pocket PC Icon	20
Connecting	21
Databases	22
Working with SqlCEDesktop	23
Tables	25
Settings	26
Totaling	27
Table Layout	28
Creating a new column	29
Indexes	30
Queries	31
Working with query results	32
Creating a table	33
Creating an index	34
Database Information	35
Create a database	36
Execute SQL statements	37
Exporting data	38
Generate Database	39
Customising data base population	40
Rename Tables	41
Load from CSV file	42
DB Loader	43
Scripting the database	45
Script the schema	46
Script the data	47
Script schema and data	48
Using your own programs on the device	49
Using our DLL on the device	49
Programming the DLL	50
RemoteSQLCe.dll	51
RemoteSQLCe.dll	51
Properties	52
Connected	52
Database_Count	53
Database_Name	54

Databases	55
Database_Versions	56
Encrypt	57
EOF	58
Error_Message	59
Error_Number	60
Field_Count	61
Field_Len	62
Field_Name	63
Field_Type	64
Field_Value	65
Host_Name	66
Info_Message	67
Password	68
Port_Number	69
Records	70
Returned_Data	71
Separator	72
Sql	73
Table_Count	74
Tables	75
Table_Type	76
Timeout	77
User_Licence	78
User_Name	79
Version_Number	80
Methods	81
Close_Connection	81
CloseDown	82
Close_Database	83
Compress_Database	84
Connect_To_Server	85
Create_Database	86
Drop_Database	87
Execute	88
Initialise	89
List_Bases	90
List_Tables	91
Listen_For_Connection	92
Movenext	93
Open_Database	94
VB.Net Demo Program	95
VB.Net Code	95

Contents

Contents

RemoteSQLCeMobile allows you to manage SqlServerCE, SqlMobile and SQL 2005 Compact Edition databases on your Pocket PC from your desktop PC.

The program will act as a client or a server allowing you to use Activesync or a wired or wireless connection .

From your desktop you can

Create a database

Drop a database

Examine the database structure

Compact a database

Create a table

Drop a table

Add columns

Drop columns

Add an index

Drop an index

Run SQL queries

Execute batches of SQL statements

Load from a CSV file

Convert and/or populate from a desktop database to a SqlServerCE database

Script a database - take a SqlCE database it, and create a SQLServer database AND populate it

Export to Excel, CSV,XML and HTML

See Connection Setting for more details on setting up your communications or use the step by step guide.

In addition, we provide DB Loader, which allows you to execute multiple SQL statements on your Pocket PC.

RemoteSQLCeMobile now **automatically** starts and connects the PocketPC client if the PPC is in the cradle.

SQL 2005 Compact Edition can be downloaded here

SQL Mobile can be downloaded here

SqlServerCE can still be downloaded here

Components

There are now 4 components to the software.

The PC component is RemoteSQLCeMobile. There are 3 components for actually accessing the databases. On the device, there are RemoteSQLCeServer and RemoteSQLMobileServer, for the the 2 different database versions. On the PC there is SqlCEDesktopServer. Either component can act as a client or a server. After connection, operation of the software is identical.

SqlCEDesktop will only be enabled if it is detected on your system. The system looks for the file **sqlceme30.dll**, to be located in the C:\Program Files\Microsoft SQL Server Compact Edition\v3.1\ folder. This can be overridden in the settings screen.

This allows you to manage a SqlServerCE database from your PC using Activesync. See PC Settings and Pocket PC Settings and Connection Setting for more details on setting up your communications.

-0-

Connection Settings

RemoteSQLCeMobile can act as a server or a client, which can be confusing - this may help out, or try the step by step guide .

ActiveSync

Pocket PC - Set as a **Client**
Port No **9891**
HostName **ppp_peer**

PC - Set as **Act as a Server**
Port No **9891**
Time out **1 (Minute)**
Connect at Startup **Checked**

With this configuration, when you start the PC, it will immediately start to listen. Start the Pocket PC component, and click on Connect. The 2 devices will communicate over ActiveSync. Typical read speed is 100 records per second.

Ethernet

Pocket PC - Set as a **Server**
Port No **9891**

PC - Act as a **Client**
Port No **9891**
Server Name/IP **IP Address of Pocket PC**

Or

Pocket PC - Set as a **Client**
Port No **9891**
HostName **Name/IP Address of PC**

PC - Set as **Act as a Server**
Port No **9891**
Time out **1 (Minute)**
Connect at Startup **Checked**

-0-

A step by step guide to connecting

If you can't connect the 2 devices, you are not going to have much success, so we will try to explain how to connect your Pocket PC to the PC.

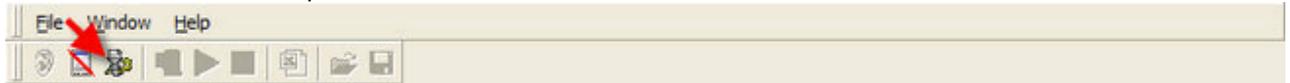
If your Pocket PC is in the cradle, then this is the section for you. If you want to use an ethernet or 802.11 connection, then try this .

-0-

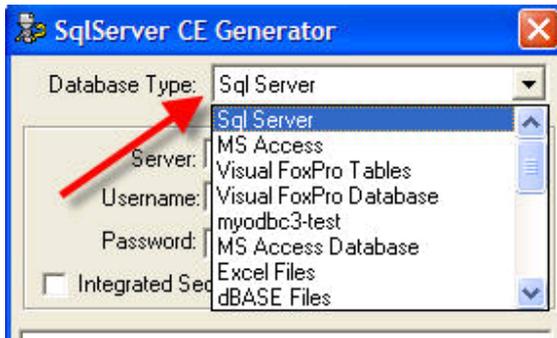
Porting a database step by step

Porting a database from the PC platform to the PPC is fairly straightforward. This is a step by step guide showing how to do it.

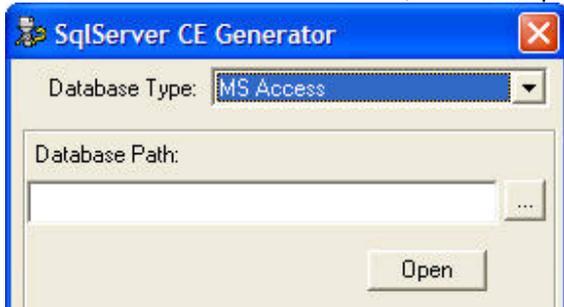
First of all, click on the 'SqlGenerate' icon



Next, select the TYPE of database you wish to convert from the drop down list.



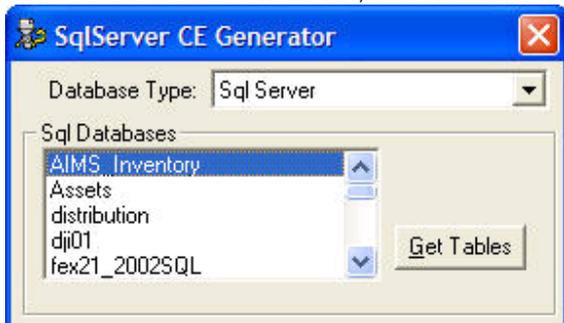
In we choose an Access database, we will be prompted to browse for it and open it.



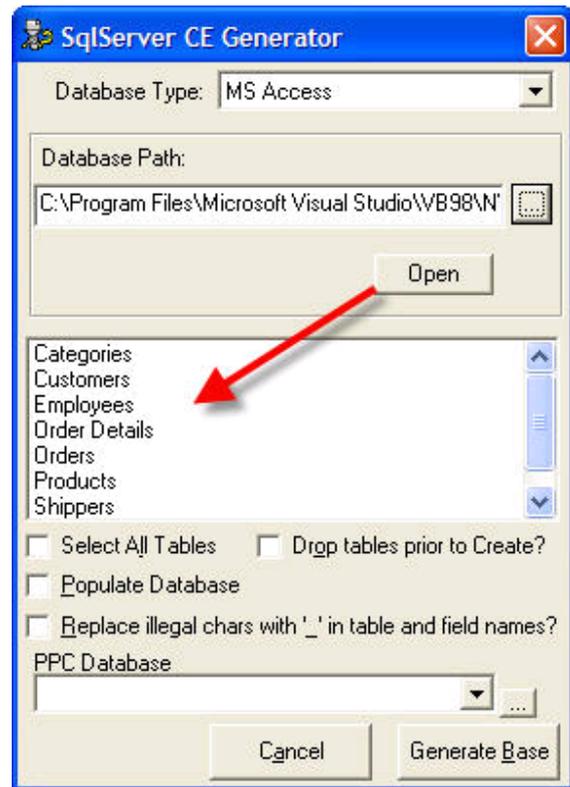
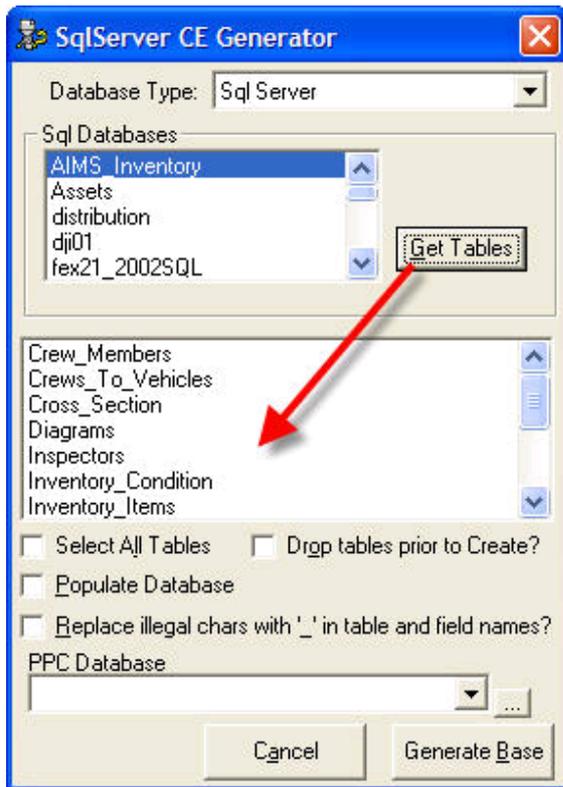
If we choose SqlServer, we click on 'OK' to get a list of SqlServer databases on our system...



Select a database from the list, and click on Get Tables



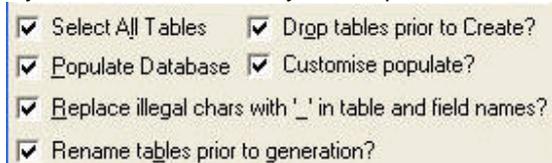
In all cases, we finish up with a list of tables.



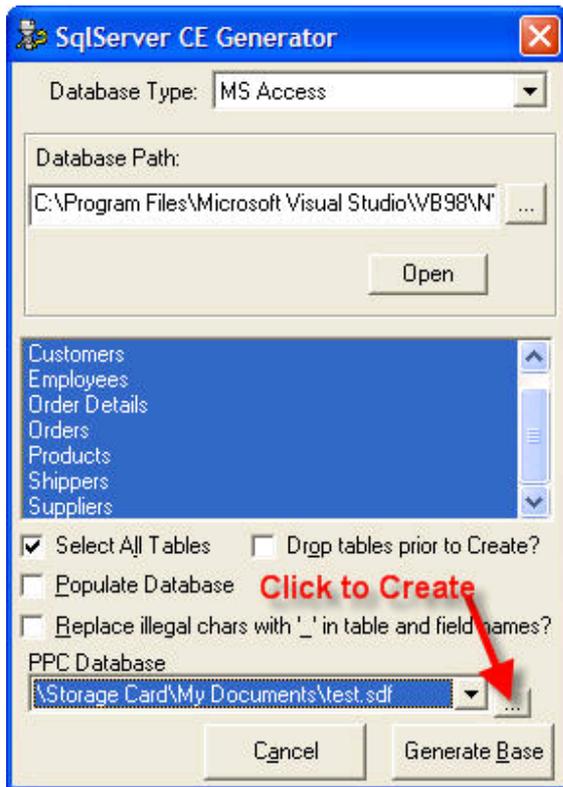
At this point, you can select one, many or all tables to generate.



- If you wish to 'drop' the table prior to creation, check the 'Drop tables' box.
- If you wish to populate your Pocket PC database, check the 'Populate' box.
- If you wish to override the 'Select * from ' then you may customise the sql, check the 'Customise populate' box.
- If you wish to replace illegal characters in any field or table names (SqlServerCE is stricter on names), check the 'Replace' box.
- If you wish to rename any tables prior to the load, check the 'Rename tables...' box.



At this point, you decide whether you want to use an existing database, or create a new base .



Finally, click on 'Generate Base'.

The software will now generate all the statements needed to generate and populate the database on the Pocket PC.

Before this is done, you get the option to save this script file.

Finally, you will be told how many records the generation will process, and asked if you wish to continue. At this point, the program will generate the database on your Pocket PC, and will open the database for you at the end of the creation.

Any errors are logged to a file, which you can view at the end.

-0-

Using on the emulator

Although not strictly designed to run on the emulator, RemoteSQLCeMobile will run on the emulator. The method of doing this is as follows:-

1. Copy the supplied file **RemoteSqlCeServer_PPC.X86.CAB** to a shared area on your PC
2. Using file explorer on the emulator, navigate to the folder in which you placed RemoteSqlCeServer_PPC.X86.CAB
3. Click and hold the left mouse button down, and select 'Copy'
4. Navigate to the My Documents folder (or any folder you like), and select Edit>Paste
5. Double-Click on the RemoteSqlCeServer_PPC.X86.CAB file, and it should install
6. An Icon will be created in the Programs folder (Not a pretty Icon, granted, but an Icon)
7. Double-Click to launch the program
8. Click on settings, and set the program to be a client, using Port 9891, and connecting to the IP address (or name) of the PC you are running on.
9. Click on OK
10. Set the SqlCEMobileClient on the PC to listen
11. Click on Connect on the emulator.
12. The 2 programs should start talking to eachother, and you should be able to create and manipulate SqlServerCE databases

Please remember - Operation on the Emulator is not fully supported, as the software is designed to run, and was tested on a Pocket PC Device.

-0-

PC Settings

The PC can act as a client or a server . To change these settings, click on File>Settings

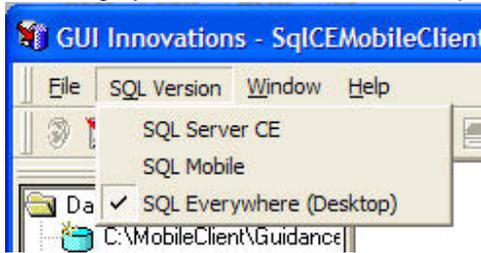
See Connection Setting for more details on setting up your communications and Settings for further options.

-0-

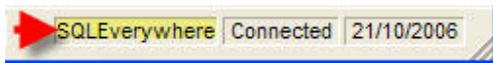
Choosing your database version

RemoteSQLCeMobile can access SqlServerCE, SqlMobile and SqlCEDesktop databases. It will always start up in the mode you last used.

To change your connection, click on SqlVersion on the menu.



The version you are currently using is shown by the check mark, and also in the status bar.



To change versions, simply click on your selected version.

The icons will tell you the version of the database.



The colour of the icons mean:-

Green - the database is open

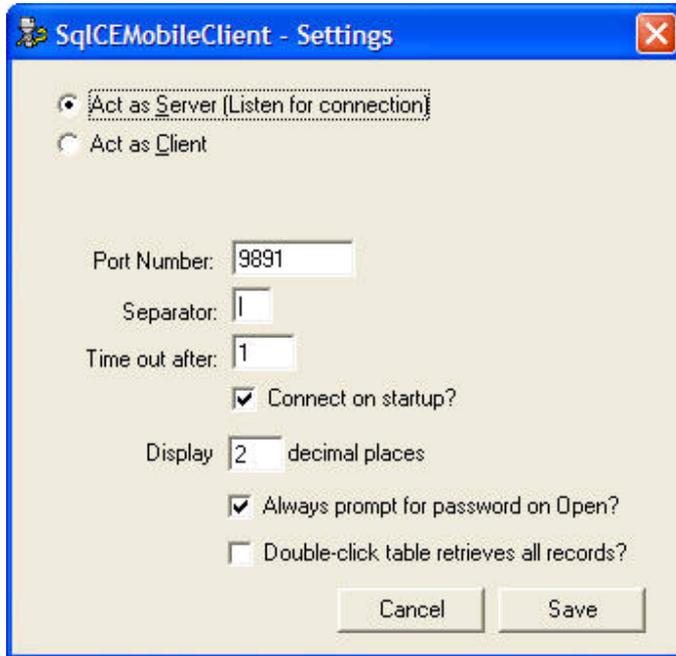
Cyan - the database is SqlServerCE or SqlCEDesktop

Magenta - the database is SqlMobile

No matter which version you use, the software will choose the correct connection for you. All databases from your mobile device are shown together, and SqlCEDesktopcg databases are show separately.

PC Server

This is the screen for using the PC as a Server

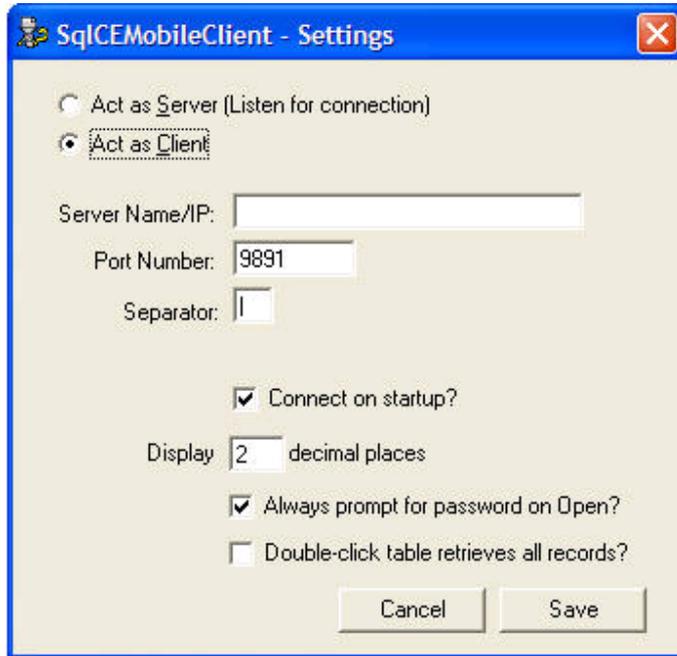


See Connection Setting for more details on setting up your communications.

-0-

PC Client

This is the screen for using the PC as a Server

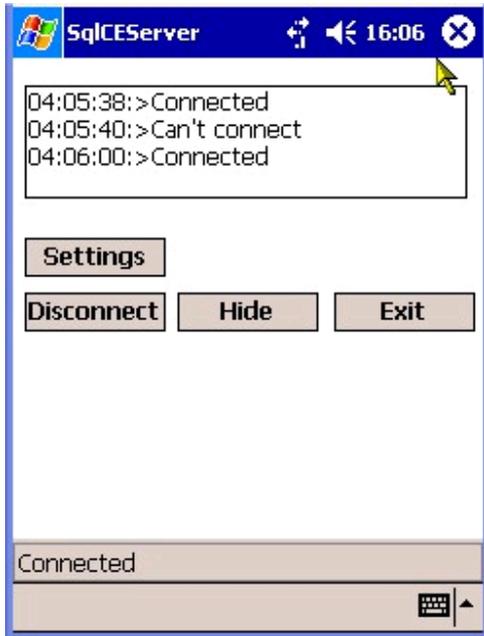


See Connection Setting for more details on setting up your communications.

-0-

Pocket PC Settings

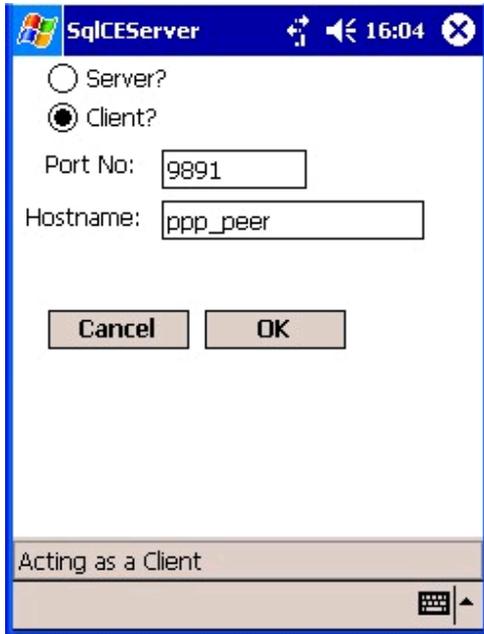
The main Pocket PC screen is show below. Click on a hot-spot for more details



-0-

Pocket PC Client

The settings for the Pocket PC acting as a client. Click on a 'hot-spot' for more details

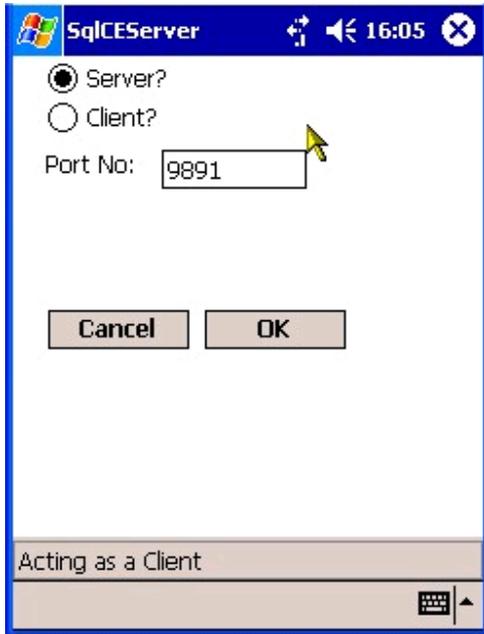


See Connection Setting for more details on setting up your communications.

-0-

Pocket PC Server

The settings for the Pocket PC acting as a server. Click on a 'hot-spot' for more details

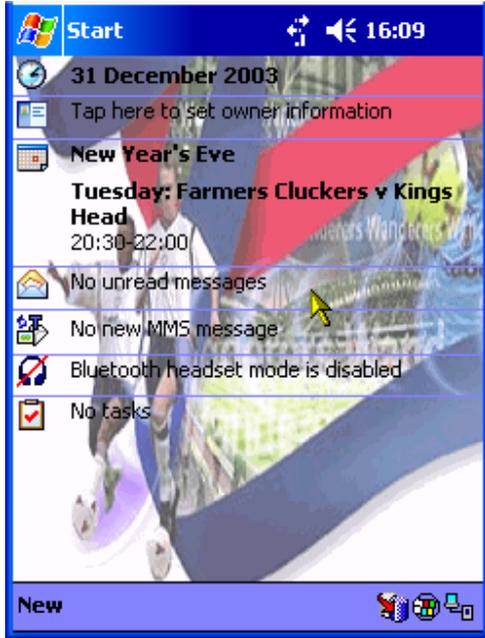


See Connection Setting for more details on setting up your communications.

-0-

Pocket PC Icon

The application hidden - Click on the SqlCEServer Icon  in the system tray to re-activate the application.



-0-

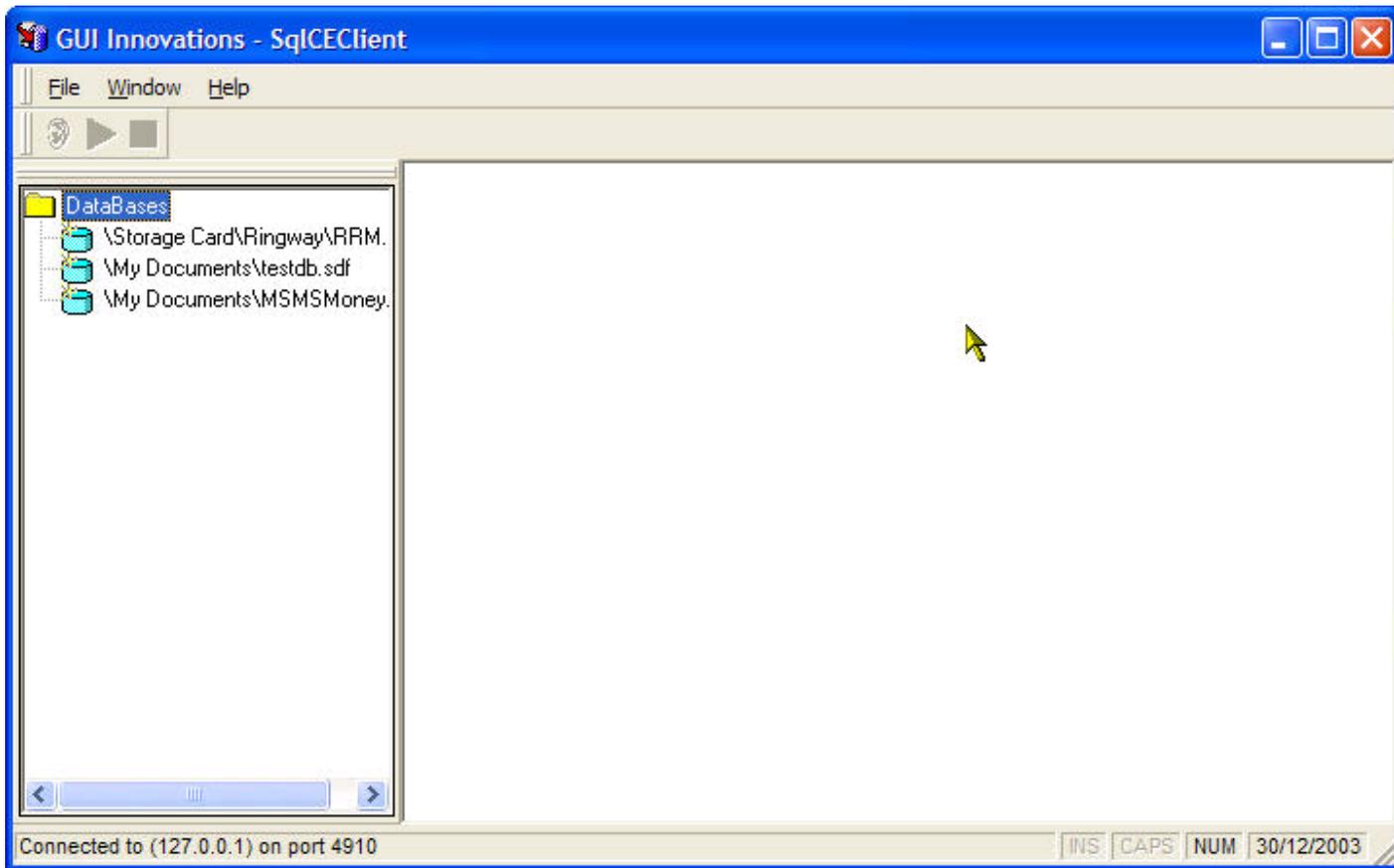
Connecting

If the PC is a client, click on File>Listen, or click on the icon 

If the PC is a server, click on File>Connect, or click on the icon 

In either case, when a connection is made, a list of databases will appear.

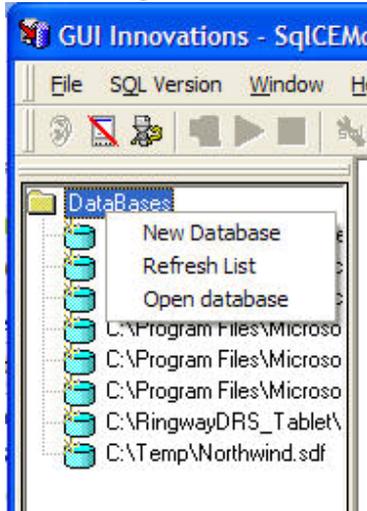
Double-click on a database to open it, or right-click to see options.



-0-

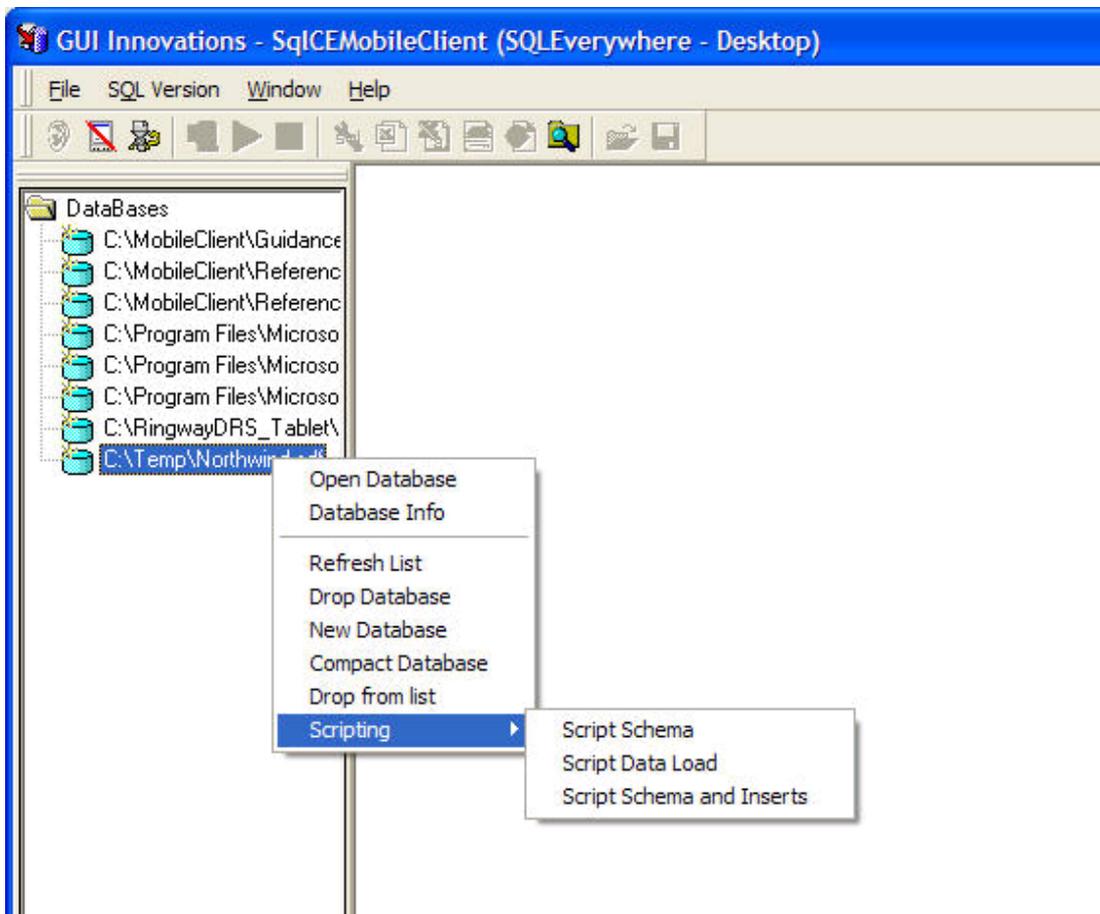
Working with SqlCEDesktop

There are 2 ways of adding databases to your treeview of SqlCEDesktop databases. You can right-click on 'DataBases', and choose open.



This will allow you to browse for and open a database. Alternately, you can click on the search icon , which will search the folder you specify for any SqlCEDesktop databases. You can search the whole hard drive to populate the list, but this may take some time.

Accessing SQLCEDesktop databases is then the same as SqlServerCE or SqlMobile databases. The same client-server architecture is used, so we can take advantage of having a common client for all our databases.

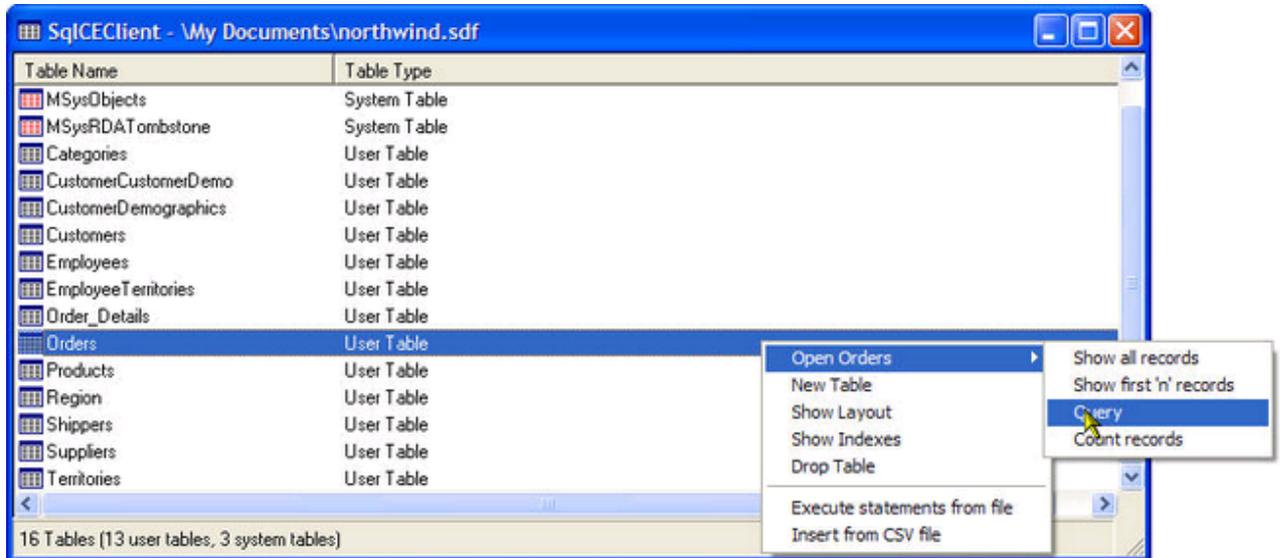


-0-

Tables

This screen shows all the tables in the database, including system tables. Right-click on a table to show your options.

Click on the Excel icon to export to Microsoft Excel.



Show all records will simply do a 'Select *' from your highlighted table.

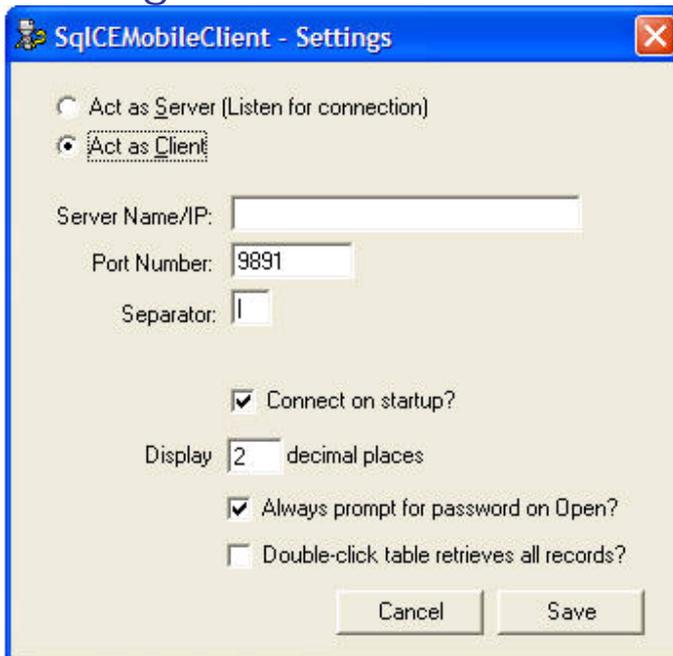
Show first 'n' records will prompt for how many records to retrieve, and retrieve that many

Query will simply open the query window

Count records will do 'Select count(*)' from your highlighted table.

-o-

Settings



RemoteSQLCe by default uses the pipe (|) character to separate data. You can change this here.

When listening for a connection, you can get RemoteSQLCe to time out after n minutes.

Check the box to get RemoteSQLCe to listen/connect as soon as you start the program

You can choose how many decimal places to display in float fields.

Finally, you can choose not to be prompted for passwords.

-o-

Totaling

When looking at your results, you can click on a numeric cell, hold the left mouse button down, and drag the mouse. The results will automatically be totaled, as illustrated here.

The screenshot shows a window titled "SqlCeClient - Results" with a query "Select * from Orders". Below the query is a table with 10 rows of order data. The columns are OrderID, CustomerID, EmployeeID, OrderDate, RequiredDate, ShippedDate, ShipVia, Freight, and Shi. The Freight column contains values: £13.99, £93.63, £34.86, £47.42, £126.38, £5.45, £122.46, £126.56, £30.34, and £184.41. At the bottom of the window, a summary row is displayed with the text "Sum: 570.750" followed by "INS", "CAPS", "NUM", and "18/03/2005". A red arrow points to the "Sum: 570.750" cell.

	OrderID	CustomerID	EmployeeID	OrderDate	RequiredDate	ShippedDate	ShipVia	Freight	Shi
1	139	FAMIA	9	18/12/1996 00:00:00	01/01/1997 00:00:00	25/12/1996 00:00:00	3	£13.99	Familia Arquibak
2	140	SANTG	1	18/12/1996 00:00:00	15/01/1997 00:00:00	20/12/1996 00:00:00	2	£93.63	Santé Gourmet
3	141	SEVES	2	19/12/1996 00:00:00	16/01/1997 00:00:00	20/12/1996 00:00:00	1	£34.86	Seven Seas Imp
4	142	BOTTM	4	20/12/1996 00:00:00	17/01/1997 00:00:00	24/12/1996 00:00:00	2	£47.42	Bottom-Dollar Mi
5	143	ERNSH	6	23/12/1996 00:00:00	20/01/1997 00:00:00	26/12/1996 00:00:00	1	£126.38	Ernst Handel
6	144	DRACD	3	23/12/1996 00:00:00	20/01/1997 00:00:00	31/12/1996 00:00:00	3	£5.45	Drachenblut Del
7	145	PICCO	2	24/12/1996 00:00:00	21/01/1997 00:00:00	01/01/1997 00:00:00	3	£122.46	Piccolo und meh
8	146	SAVEA	1	25/12/1996 00:00:00	22/01/1997 00:00:00	03/01/1997 00:00:00	3	£126.56	Save-a-lot Mark
9	147	HUNGC	1	25/12/1996 00:00:00	22/01/1997 00:00:00	03/01/1997 00:00:00	3	£30.34	Hungry Coyote I
10	148	HILAA	6	26/12/1996 00:00:00	23/01/1997 00:00:00	03/01/1997 00:00:00	1	£184.41	HILARION-Abas
								Sum: 570.750	INS CAPS NUM 18/03/2005

-0-

Table Layout

This shows you all the columns in the table, and their properties. Right-click to add a new column , drop a column add a new index or Script the table create
Click on the Excel icon to export to Microsoft Excel.

	Column Name	Data Type	Length	Allow Nulls	Key Field?	Primary Key
1	Vehicle_Ref	int		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Mileage	int		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	InspectDate	datetime		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	InspectTime	datetime		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	Plant_No	nvarchar	50	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	NoDefect	bit		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Cab	bit		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Wheels	bit		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Exhaust	bit		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Check_WheelNuts	bit		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Check_Tyres	bit		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Check_Body	bit		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Check_OilWater	bit		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Check_DonkeyOil	bit		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	Brakes_Grabbing	bit		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	Brakes_Squeal	bit		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	Brakes_Insufficient	bit		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	Brakes_DoesNotRe	bit		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	Brakes Pedal	bit		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

-0-

Creating a new column

This screen is used for adding 1 or more columns to a table. Click on a hot-spot for more details.

	Column Name	Data Type	Length	Allow Nulls
1	ANewColumn	bigint	8	<input checked="" type="checkbox"/>
2	anothernewcolumn			<input type="checkbox"/>
3		bigint		<input type="checkbox"/>
4		binary		<input type="checkbox"/>
5		bit		<input type="checkbox"/>
6		datetime		<input type="checkbox"/>
7		float		<input type="checkbox"/>
		image		<input type="checkbox"/>

Columns

Default Value:

Precision:

Scale:

Identity:

Identity Seed:

Identity Increment:

Is Row Guid:

Indexed Field:

Unique:

Table Name:

Cancel Add Columns

-0-

Indexes

This screen shows all the indexes for the chosen table. Right-click to get options. Click on a 'hot-spot' for more details. Click on the Excel icon to export to Microsoft Excel.



-0-

Queries

The software contains a 'query' window allowing you to do 'ad-hoc' queries. The full range of SQL queries is supported. 'Select' queries return their results in a 'grid'. Click on a heading to sort the grid - click again to reverse the sort order. For more details see here.

- Click on the Excel icon to export to Microsoft Excel.
- Click on the CSV icon to export to CSV Files
- Click on the XML icon to export to XML files
- Click on the HTML icon to export to HTML Files
- Click on the SQL icon to generate insert statements (More Details)

Dragging the mouse across numeric columns will automatically add them up, and put the results in the main status bar **Sum: 165.000**

The query window works in a similar way to SqlQuery. You can have many lines of commands, but if you highlight a command, only that command will be carried out, e.g.

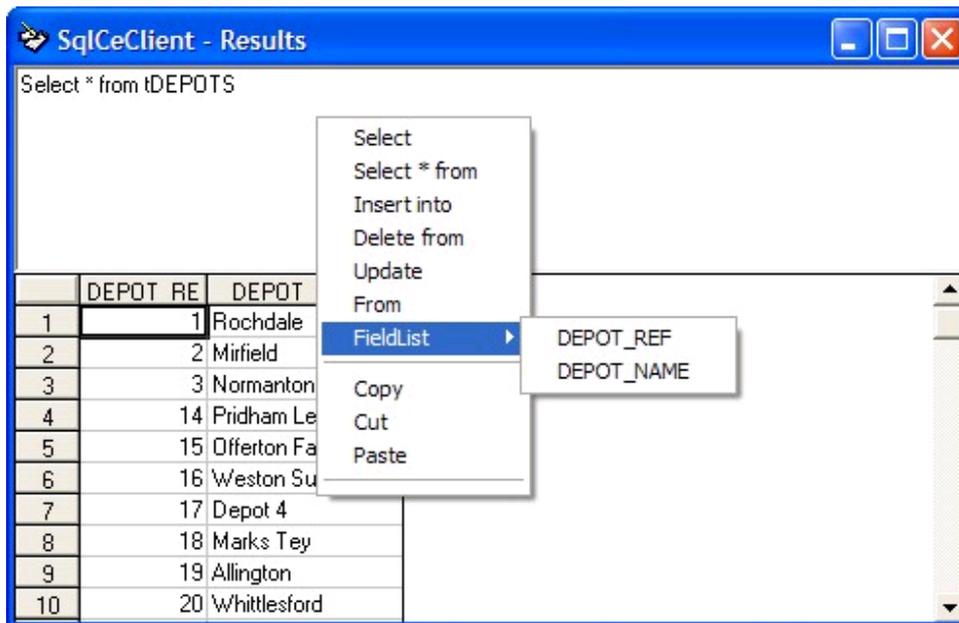
Select * from tDepots

Delete from tDepots where Depot_ref = 1

Update tDepots set depot_name = 'Wincanton' where depot_ref = 3

Highlighting the line 'Delete from' etc, and clicking on the 'Go' button will just do the 'Delete'

Right-click to bring up a context menu to help build queries



-0-

Working with query results

SqlCEMobileClient - Results

Select * from Suppliers

Click here to select the whole grid

Click on any column heading to sort the results. Click again to reverse the sort.

Supplier ID	Company Name	Contact Name	Contact Title	Address
1	1 Eucalia Liquids	Charlotte Cooper	Purchasing Manager	49 Gilbert St.
2	2 n Delights	Shelley Burke	Order Administrator	P.O. Box 78934
3	3 omestead	Regina Murphy	Sales Representative	707 Oxford Rd.
4	4	Yoshi Nagase	Marketing Manager	9-8 SekimaiMusashino-shi
5	5 quesos 'Las Cabras'	Antonio del Valle Saavedra	Export Administrator	Calle del Rosal 4
6	6	Mayumi Ohno	Marketing Representative	92 SetsukoChuo-ku
7	7	Ian Devling	Marketing Manager	74 Rose St.Moonie Ponds
8	8 Specialty Biscuits, Ltd.	Peter Wilson	Sales Representative	29 King's Way
9	9 PB Knäckebröd AB	Lars Peterson	Sales Agent	Kalodagatan 13
10	10 Refrescos Americanas LTDA	Carlos Diaz	Marketing Manager	Av. das Americanas 12.890
11	11 Heli Süßwaren GmbH & Co. KG	Petra Winkler	Sales Manager	Tiergartenstraße 5
12	12 Pluspar Lebensmittelgroßmärkte AG	Martin Bein	International Marketing Mgr.	Bogenallee 51
13	13 Nord-Ost-Fisch Handelsgesellschaft mbH	Sven Petersen	Coordinator Foreign Markets	Frahmredder 112a
14	14 Formaggi Fortini s.r.l.	Elio Rossi	Sales Representative	Viale Dante, 75
15	15 Norske Meierier	Beate Vileid	Marketing Manager	Hatlevegen 5
16	16 Bigfoot Breweries	Cheryl Saylor	Regional Account Rep.	3400 - 8th AvenueSuite 210
17	17 Svensk Sjöföda AB	Michael Björn	Sales Representative	Brovallavägen 231
18	18 Aux joyeux ecclésiastiques	Guyllène Nodier	Sales Manager	203, Rue des Francs-Bourgeois
19	19 New England Seafood Cannery	Bob Merchant	Wholesale Account Agent	Order Processing Dept 2100 Paul

Creating a table

Enter your column names and properties, and click on 'add table' when you are done. Click on a 'hot-spot' for more details.

	Column Name	Data Type	Length	Allow Nulls
1	Customer_ID	int	4	<input type="checkbox"/>
2	Customer_Name	nvarchar	50	<input checked="" type="checkbox"/>
3		int		<input type="checkbox"/>
4		money		<input type="checkbox"/>
5		nchar		<input type="checkbox"/>
6		ntext		<input type="checkbox"/>
7		numeric		<input type="checkbox"/>
		nvarchar		<input type="checkbox"/>

Columns

Default Value:

Precision:

Scale:

Identity:

Identity Seed:

Identity Increment:

Is Row Guid:

Indexed Field:

Unique:

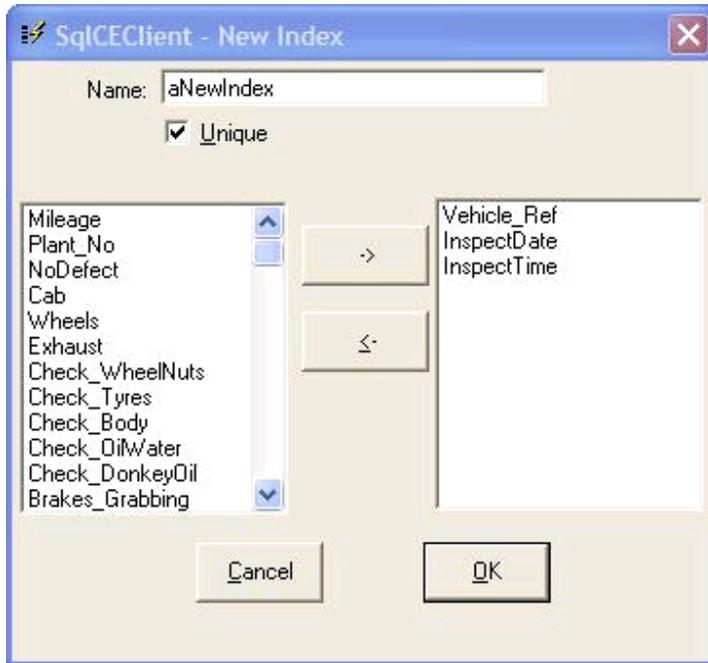
Table Name:

Cancel Create Table

-0-

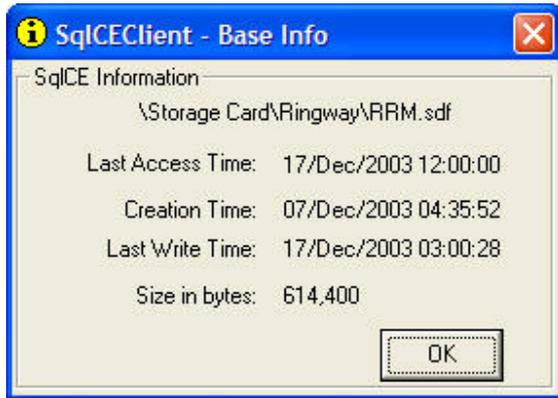
Creating an index

Use this screen to create indexes on your selected table. Click on a 'hot-spot' for more details.



-0-

Database Information

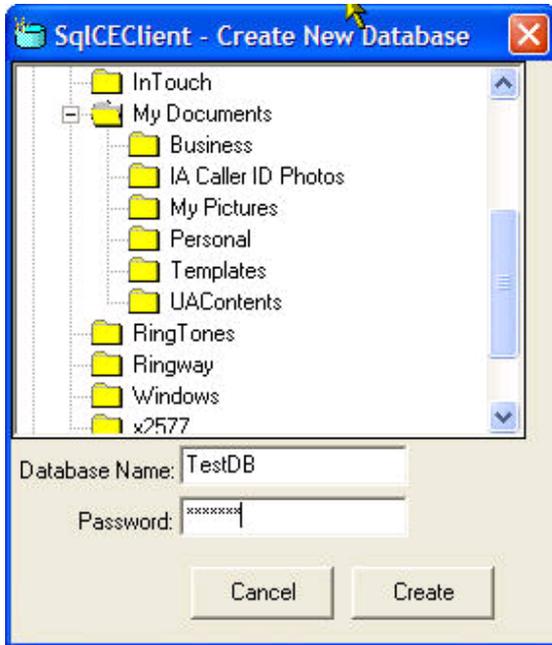


The database version is supplied in the title of the frame

-o-

Create a database

This screen allows you to create a new database. You can browse your Pocket PC file structure (including storage cards) and choose a folder. Select a name for your database, and optionally enter a password. Then click on 'Create' to create the database. The list of databases is automatically refreshed. To create a new folder, right click on the folder you wish to create it in.



-0-

Execute SQL statements

You have the ability to execute statements from a file. The file should contain 1 statement per line, as...

```
insert into t1 values (1,2)
insert into t1 values (2,3)
.....
```

The program will run to end of file executing all statements. At the end of the file, it will show you any statements that had errors, and what the errors were.

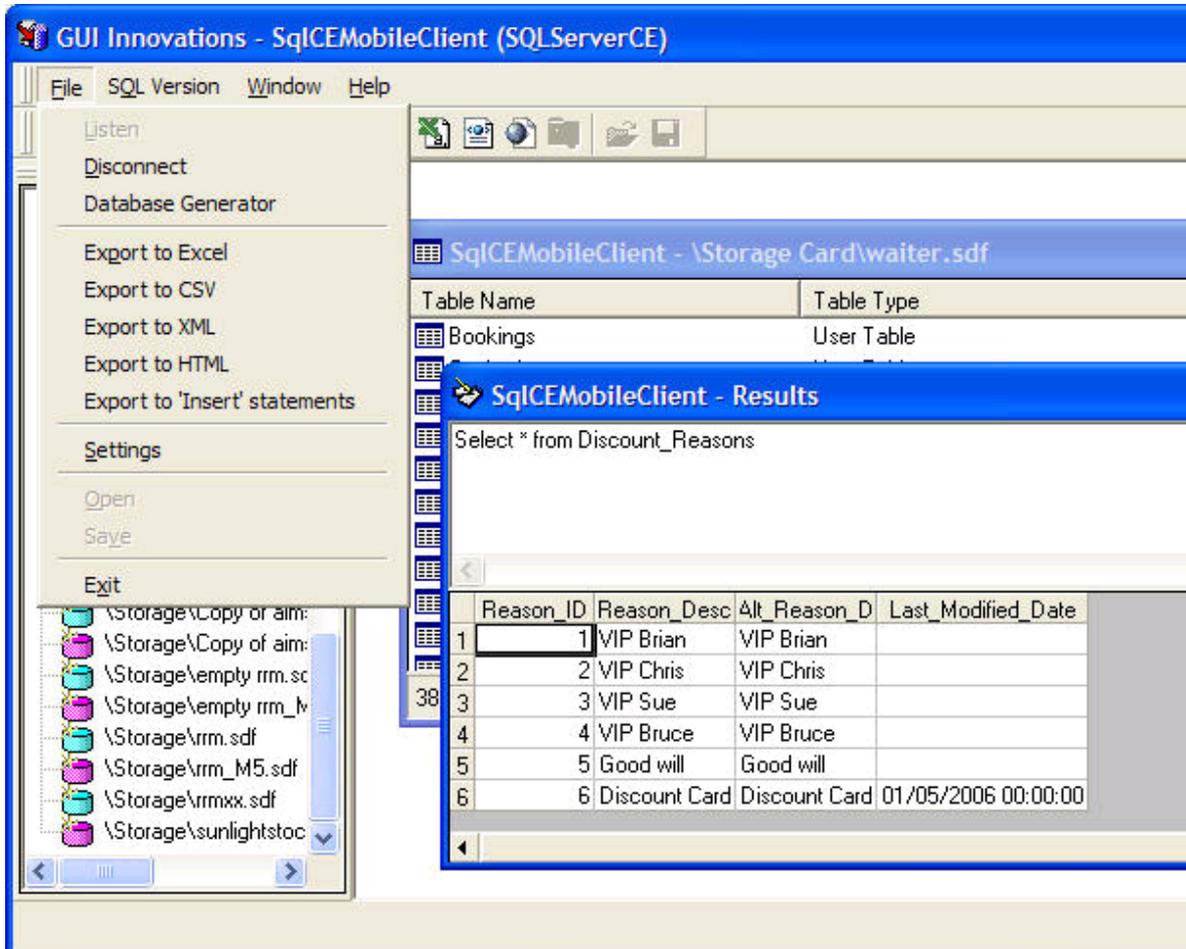
To stop the execution, click on the red 'Stop' button on the toolbar. You may have to do this several times to get the server to listen, as it locks the screen during operations.

-0-

Exporting data

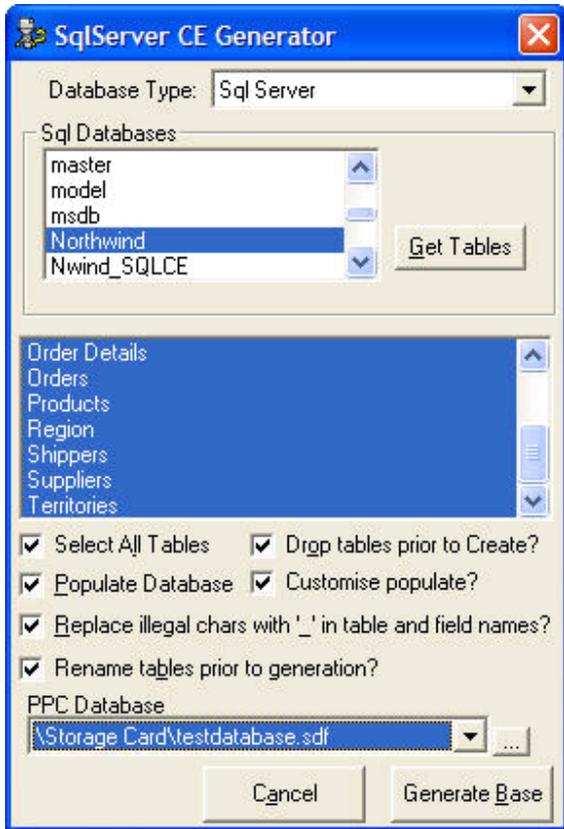
When you have retrieved from the database, you have a choice of how to export results. Highlight your results, and click on file.

You can export to Excel, CSV, XML, HTML or you can export the retrieved data as insert statements, to populate a new database.



Generate Database

RemoteSQLCe also allows you to create a SQLServerCe database from an existing database. SqlServer, Access and ODBC connected databases are supported. Click on a 'hot-spot' below more details

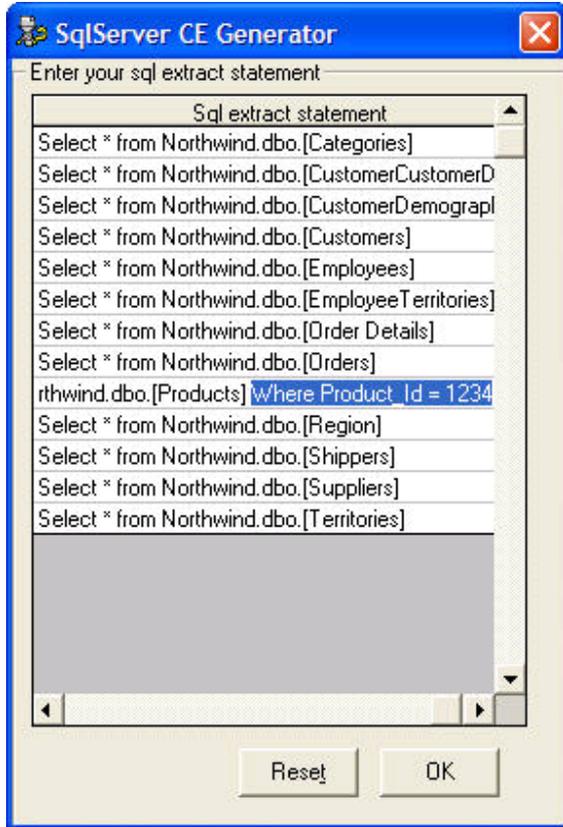


-0-

Customising data base population

This screen allows you to customise your database population.

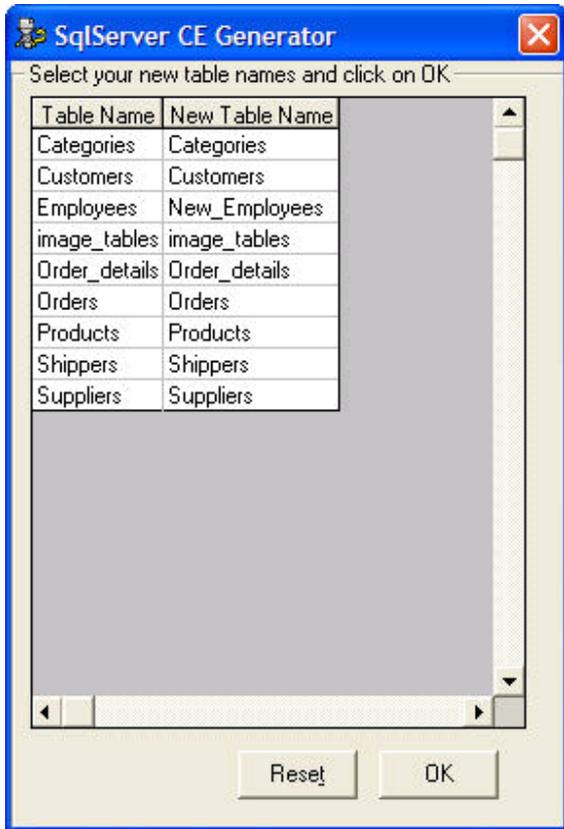
The "Select * from " statement is generated, and will select all records. You can change this to only select the records you want. RemoteSQLCe does no syntax checking, it just submits the string to the database.



-0-

Rename Tables

If you want different names for your CE tables, check this box. Prior to generation, you are presented with the screen below, which will allow you to have a different name for your PPC tables.



-0-

Load from CSV file

Allows you to load from a CSV file. Statements are generated in the format:-

Insert into *tablename* (*column names*) values (*values*)

RemoteSQLCeMobile takes into account Identity columns, so, if your table is structured

Record_Key	Int	Identity
Customer_Name	nvarchar(50)	
Customer_Inits	nvarchar(4)	

RemoteSQLCe would expect the CSV table to be in the format

```
"Vickers","PAV"  
"Allardyce","S"  
"Djorkaeff","Y"
```

The insert statement would be generated as:-

```
Insert into customers (Customer_Name, Customer_Inits) Values ('Vickers','PAV')
```

etc.

The identity column can be anywhere on the record, not just the first column.

The records MUST be separated by commas.

-o-

DB Loader

DB Loader allows you to execute many SQL statements on your PC. For example, you could generate your database from a SQL Server, and when asked, save the script file, and do not execute the statements.

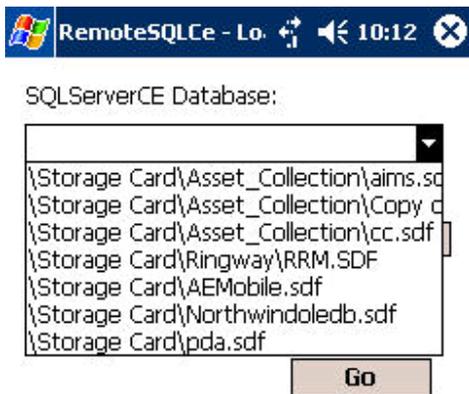
You can then copy the resulting file to your PPC and use DB Loader.

A sample script file would be...

```
Drop Table Categories
Create Table Categories (CategoryID int NOT NULL Identity , CategoryName nvarchar(15) NOT NULL , Description nvarchar(255) NOT NULL , Picture nvarchar(255) NOT NULL)
Insert into Categories (CategoryName,Description,Picture) values ('Beverages','Soft drinks, coffees, teas, juices, and other beverages.',NULL)
Insert into Categories (CategoryName,Description,Picture) values ('Condiments','Sweet and savory sauces, relishes, dressings, and other condiments.',NULL)
Insert into Categories (CategoryName,Description,Picture) values ('Confections','Desserts, candies, and sweet breads.',NULL)
Insert into Categories (CategoryName,Description,Picture) values ('Dairy Products','Cheeses, curds, and other milk-based products.',NULL)
Insert into Categories (CategoryName,Description,Picture) values ('Grains/Cereals','Breads, crackers, pasta, and other grain products.',NULL)
Create Unique Index PK_Categories On Categories (CategoryID)
```

This could come in useful if you have 1000's of records to load, and do not wish to tie up your PC. Simply copy the script file to a memory card, and use DB Loader to execute it.

DB Loader automatically lists all the databases on your device, so just choose a database.

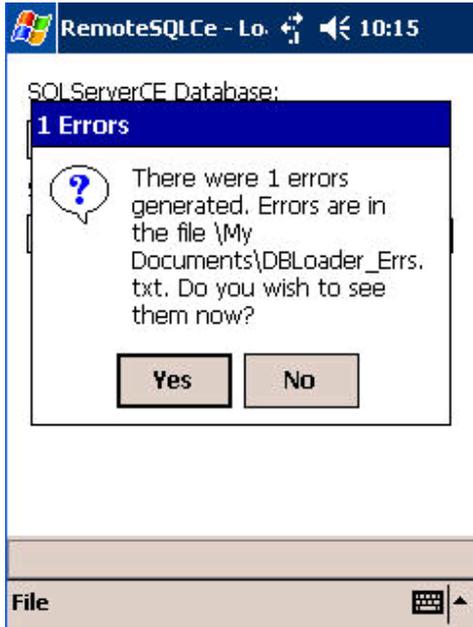


Then click on the browse button  or enter your file name and click on 'Go'

The system will start executing the statements and will display its progress every 100 records...



Any errors are saved to a file, and at the end, you get the chance to examine this file..



-0-

Scripting the database

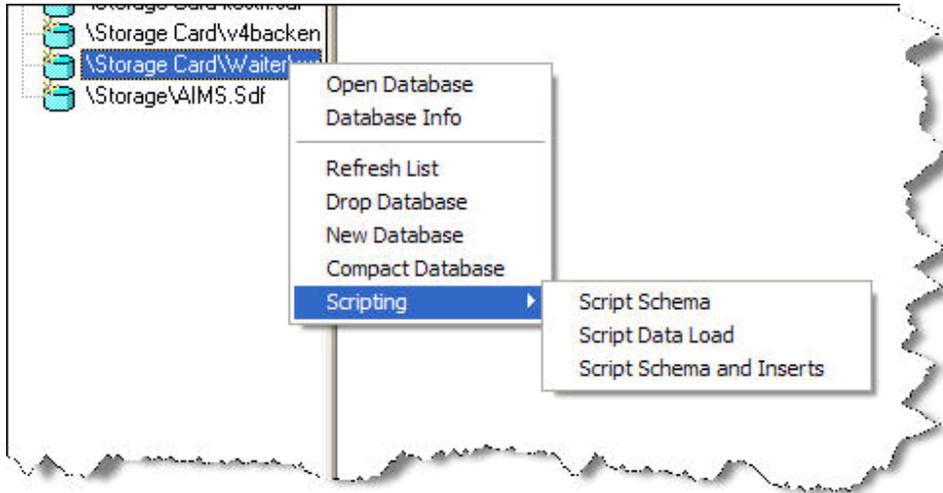
RemoteSQLCeMobile gives you 3 options to script your database

Script the Schema

Script the data

Script Both

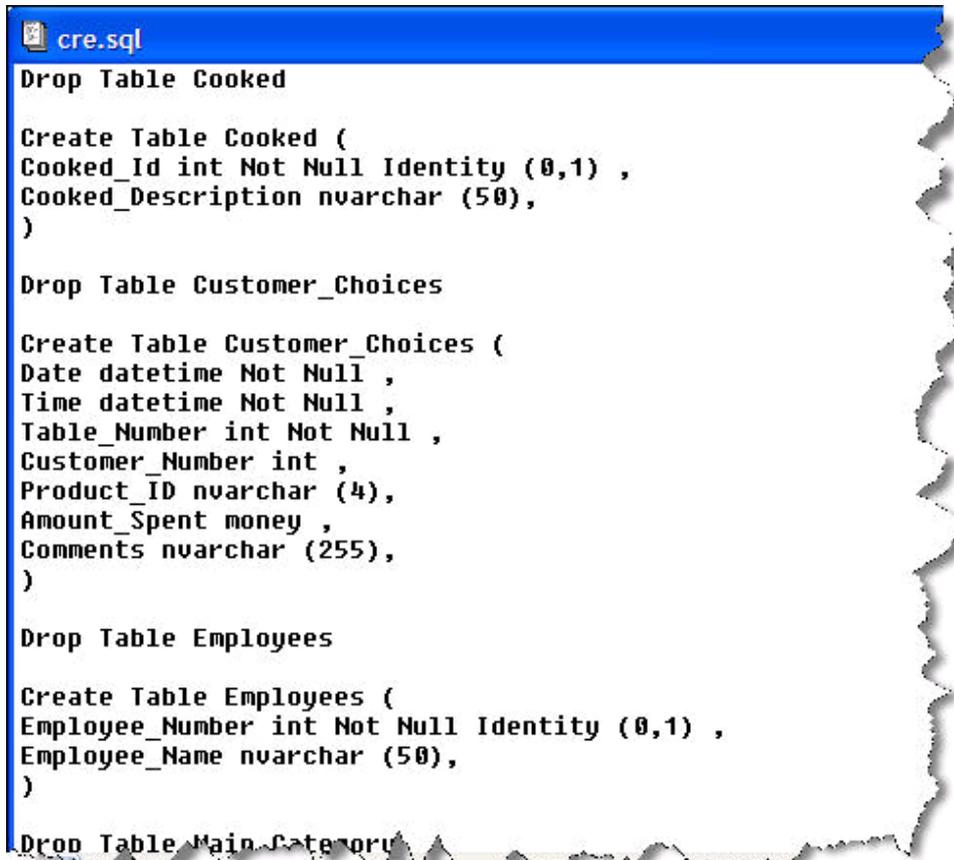
Simply right click on a database choose your option



-0-

Script the schema

You will be prompted for your Database password. The program will then script each table in the database, including indexes



```
cre.sql
Drop Table Cooked

Create Table Cooked (
Cooked_Id int Not Null Identity (0,1) ,
Cooked_Description nvarchar (50),
)

Drop Table Customer_Choices

Create Table Customer_Choices (
Date datetime Not Null ,
Time datetime Not Null ,
Table_Number int Not Null ,
Customer_Number int ,
Product_ID nvarchar (4),
Amount_Spent money ,
Comments nvarchar (255),
)

Drop Table Employees

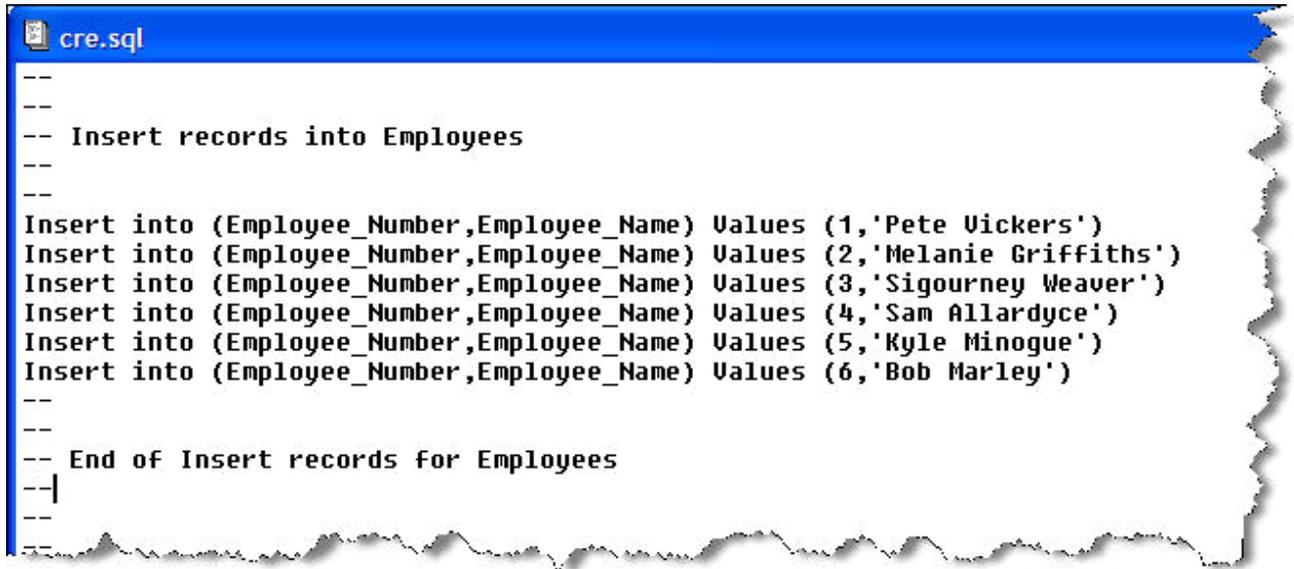
Create Table Employees (
Employee_Number int Not Null Identity (0,1) ,
Employee_Name nvarchar (50),
)

Drop Table Main_Categories
```

-0-

Script the data

This will create insert statements for all tables in your database.

A screenshot of a text editor window titled 'cre.sql'. The window contains a SQL script with the following content:

```
--  
--  
-- Insert records into Employees  
--  
--  
Insert into (Employee_Number,Employee_Name) Values (1,'Pete Vickers')  
Insert into (Employee_Number,Employee_Name) Values (2,'Melanie Griffiths')  
Insert into (Employee_Number,Employee_Name) Values (3,'Sigourney Weaver')  
Insert into (Employee_Number,Employee_Name) Values (4,'Sam Allardyce')  
Insert into (Employee_Number,Employee_Name) Values (5,'Kyle Minogue')  
Insert into (Employee_Number,Employee_Name) Values (6,'Bob Marley')  
--  
--  
-- End of Insert records for Employees  
--|  
--  
--
```

-0-

Script schema and data

This option will script the database schema, and will the script the inserts for each table.

-o-

Using your own programs on the device

Using our DLL on the device

Rather than use our interface on the Pocket PC, you may wish to use your own program, or hide from the user that RemoteSQLCeMobile is running.

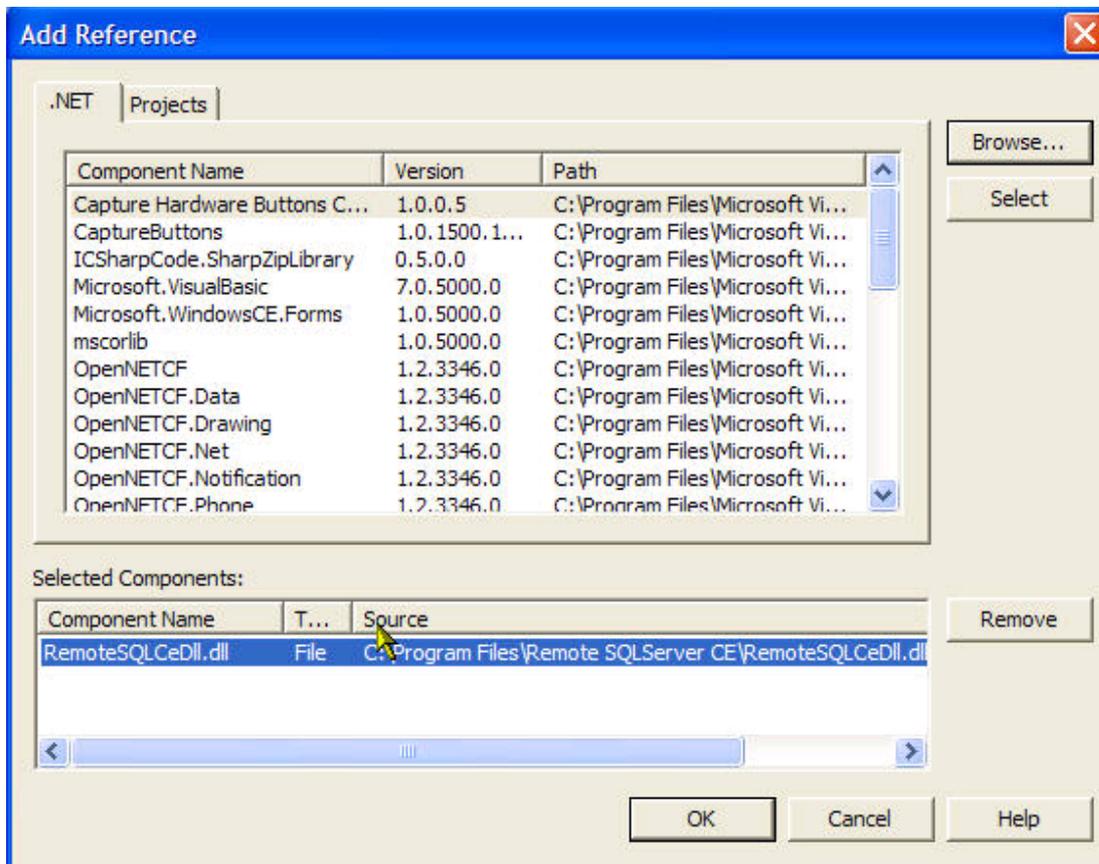
To allow you to do this, at the request of one of our users, we also provide the PPC component as a dll.

This will support all operations from RemoteSQLCe and RemoteSQLCE.dll

In your compact framework application, add a reference to our dll - installed in the C:\Program Files\Remote SQLServer CE folder

Click on Project>Add Reference

Click on Browse and add a reference to RemoteSQLCeDll.dll for SqlServerCE databases, or RemoteSQLMobileDll.Dll for SqlMobile devices.



You may get a warning about platform, click on OK to ignore this warning.

Programming the DLL

-o-

Programming the DLL

First of all import the reference, e.g.

```
Imports RemoteSQLCeDll  
or  
Imports RemoteSQLMobileDll
```

and then declare an instance of it as

```
Private rSql As GUI_RemoteSQLCeDll
```

There are very few properties to set, and these are equivalent to the PPC Settings, catering for both client and server.

The properties are...

```
Act_As_A_Server (Boolean)  
Act_As_A_Client (Boolean)  
Remote_Port (Integer)  
Host (String)
```

The methods are...

```
Init_To_Last_Values - Sets Remote_Port, Act_As_A_xxx and Host to their values from the  
previous run.  
Connect_To_Server  
Listen_For_Connection
```

In all cases, these methods return integers. A non-zero return code is an error, and sets the Error_Message property.

Sample code to call this is...

```
Set rSql = New GUI_RemoteSQLCeDll  
rSql.Act_As_Client = True  
rSql.Host = "ppp_peer"  
rSql.Remote_Port = 9891  
  
If rSql.Connect_To_Server() <> 0 Then  
    MsgBox(rSql.Error_Message)  
End If
```

This will connect to the PC listening on the default port, via activesync.

If the dll connects successfully, control is NOT returned to your program, so you may wish to do this in a thread.

-0-

RemoteSQLCe.dll

RemoteSQLCe.dll

RemoteSQLCe.dll is a com object that allows you to harness the power of RemoteSQLCe in your own programs. Virtually everything you can do with RemoteSQLCe, you can do with RemoteSQLCe.dll.

This allows you to synchronise any database with a PPC if you wish, using your own programs.

For more details, see Methods and Properties

The software is provided with 2 sample programs, 1 written in VB6, and 1 written in VB.Net just to get you started. These programs demonstrate a lot of the functionality use in RemoteSQLCe.dll

To use the dll in VB.Net, click on Project>Add Reference
Click on the COM tab, and then click on the Browse button. Browse to RemoteSQLCe.dll (usually found in the C:\Program Files\Remote SQLServer CE folder), and click on Open. Finally, click on OK and the reference will be added.

To use it in your VB.Net code, at the start of the Form or Module, add at the top of the code, Imports RemoteSQLCe

Declare an instance similar to...

```
Private rs as RemoteSQLCe
```

```
and finally, in your program, do  
rs = New RemoteSQLCe  
rs.User_Name = "Evaluation"  
rs.User_Licence = 12345678  
If rs.Initialise <> 0 Then ...
```

To use in VB6, click on Project>References

Click on the Browse button. Browse to RemoteSQLCe.dll (usually found in the C:\Program Files\C:\Program Files\Remote SQLServer CEMobile\PC Dll\ folder), and click on Open. Finally, click on OK and the reference will be added.

In your code, declare it as...

```
Private rs As RemoteSQLCe
```

And then when you want to use it do

```
Set rs = New RemoteSQLCe  
rs.User_Name = "Evaluation"  
rs.User_Licence = 12345678  
If rs.Initialise <> 0 Then ...
```

Properties

Connected

Data Type: Boolean

Returns a value to say whether the PC is connected to the Pocket PC.

Syntax: *remotesql*.Connected

See also: Listen_For_Connection, Connect_To_Server

-o-

Database_Count

Data Type: Integer

Returns a value to say how many databases were found on the Pocket PC

Syntax: *remotesql*.Database_Count

See also: List_Bases

-0-

Database_Name

Data Type: String

Returns/Sets the database name of the SQLCe database. This must include the full path.

Syntax: *remotesql*/Database_Name = "\\My Documents\Test.sdf"

See also: Password, Encrypt

-0-

Databases

Data Type: Array

Returns a value to show the names of all databases found on the Pocket PC. Number of databases are show in Database_Count

Syntax: *remotesql*.Databases(0)

See also: List_Bases

-0-

Database_Versions

Data Type: Array

Returns a value to show the versions of all databases found on the Pocket PC. Number of databases are show in Database_Count

Syntax: *remotesql*.Database_Versions(0)

See also: List_Bases

A value of 2 indicates SqlServerCE, and a value of 3 indicates SqlMobile

-0-

Encrypt

Data Type: Boolean

Returns/Sets a value to say whether the SDF file is encrypted on the PPC

Syntax: *remotesql*/Encrypt = True

See also: Open_Database

-0-

EOF

Data Type: Boolean

Returns a value to say whether end of file has been reached following a select statement.

Syntax: *remotesql*.EOF

See also: Sql, Execute

-0-

Error_Message

Data Type: String

Returns a value showing any error message returned from an operation.

Syntax: *remotesql*.Error_Message

See also

-0-

Error_Number

Data Type: Integer

Returns a value to say whether an error was encountered during the last operation. Non-zero is an error condition.

Syntax: *remotesql*.Error_Number

See also Error_Message

-0-

Field_Count

Data Type: Integer

Returns a value to say how many fields were retrieved by a Select statement.

Syntax: *remotesql*.Field_Count

See also: Sql, Execute

```
Dim ict as integer
for ict = 0 to rs.Field_Count - 1
    list1.additem rs.Field_Name(ict), rs.Field_Value(ict),rs.Field_Len(ict), rs.Field_Type(ict)
Next
```

-o-

Field_Len

Data Type: Integer Array

Returns a value showing the length of each field returned.

Syntax: *remotesql*.Field_Len(0)

See also: Field_Count

-0-

Field_Name

Data Type: String Array

Returns a value showing the name of each field returned.

Syntax: *remotesql*.Field_Name(0)

See also: Field_Count

-0-

Field_Type

Data Type: Integer Array

Returns a value showing the type of each field returned.

Syntax: *remotesql*.Field_Type(0)

Values are the same as ADO constants,

ADOX	SQL Server CE data types
adSmallInt	smallint
adInteger	integer
adSingle	real
adDouble	float
adCurrency	money
adBoolean	bit
adUnsignedTinyInt	tinyint
adBigInt	bigint
adGUID	uniqueidentifier
adVarBinary	varbinary
adBinary	binary
adVarWChar	nvarchar
adWChar	nchar
adNumeric	numeric
adDBTimeStamp	datetime
adLongVarBinary	image
adLongVarWChar	ntext

See also: Field_Count

-0-

Field_Value

Data Type: Array

Returns a value showing the value of each field returned.

Syntax: *remotesql*.Field_Value(0)

See also: Field_Count

-0-

Host_Name

Data Type: String

Returns/Sets a value showing the name or ip address of the host.

Syntax: *remotesql*/Host_Name

See also: Connect_To_Server

-0-

Info_Message

Data Type: String

Returns a value showing an informatry message after operations like creating or compressing a database.

Syntax: *remotesql*.Info_Message

See also: Create_Database, Compress_Database

-0-

Password

Data Type: String

Returns/Sets a value for the password when opening/creating a database.

Syntax: *remotesql*/Password

See also: Open_Database, Create_Database

-0-

Port_Number

Data Type: Long

Returns/Sets a value for the port number to connect to the PPC on. Default port is 9891

Syntax: *remotesql*/Port_Number

See also: Listen_For_Connection, Connect_To_Server

-0-

Records

Data Type: Long

Returns a value showing the number of records affected by the last operation.

Syntax: *remotesql*.Records

See also: Sql, Execute

-0-

Returned_Data

Data Type: String

Returns a value of all the fields returned separated by the pipe (|) character. This can be used as an alternative to using Field_Value

Syntax: *remotesql*/Returned_Data

See also Field_Value

-0-

Separator

Data Type: String

Returns/Sets a value of the separator RemoteSQLCe uses. The default is the pipe | character

Syntax: *remotesql*/separator = "^"

This must be set prior to any retrievals. Suggestion is to set it as soon as you initialise, and BEFORE you connect

-0-

Sql

Data Type: String

Returns/Sets a value of the sql string you wish to excute.

Syntax: *remotesql*.Sql = "Select * from tDepots"

See also: Execute

-0-

Table_Count

Data Type: Long

Returns a value showing how many tables are in the data base. This includes system tables.

Syntax: *remotesql*.Table_Count

See also: List_Tables

-0-

Tables

Data Type: String Array

Returns a value showing the names of all tables in the database.

Syntax: *remotesql*.Tables(0)

See also: List_Tables

-0-

Table_Type

Data Type: String Array

Returns a value showing the type of each table returned. Values are "TABLE" or "SYSTEM TABLE"

Syntax: *remotesql*.Table_Type(0)

See also: List_Tables

-0-

Timeout

Data Type: Long

Returns/Sets a value in milliseconds telling the program to time out on listening after *Timeout* milliseconds. A value of 0 means do not time out

Syntax: *remotesql*.Timeout

See also: Listen_For_Connection

-0-

User_Licence

Data Type: Double

Returns/Sets a value for the user licence. This is sent to you when you purchase the DLL. It is NOT the same as your licence number for RemoteSQLCe for Pocket PC. Must be used to initialise the DLL.

Syntax: *remotesql*/User_Licence

See also: Initialise, User_Name

-0-

User_Name

Data Type: String

Returns/Sets a value showing the user name. This is used in conjunction with User_Licence for initialising the dll.

Syntax: *remotesql*/User_Name

See also: Initialise, User_Licence

-0-

Version_Number

Data Type: String

Returns a value showing the version number of the DLL. You may be asked for this if you have a problem.

Syntax: *remotesql*/Version_Number

See also

-0-

Methods

Close_Connection

Closes the connection to the Pocket PC and also closes the database.

Syntax: *remotesql*.Close_Connection

See also: Listen_For_Connection, Connect_To_Server

-o-

CloseDown

Closes the dll for anymore access - should be called when the calling program is terminating.

Syntax: *remotesql*.CloseDown

-0-

Close_Database

Closes the the database on the Pocket PC without closing the connection

Syntax: *remotesql*.Close_Database

See also: Open_Database

-0-

Compress_Database

Compresses the current open database. Returns and Info_Message telling you how many bytes were saved.

Syntax: *remotesql*.Compress_Database

See also

-0-

Connect_To_Server

Connect to the Pocket PC when the Pocket PC is functioning as a server. Needs the Host_Name of the Pocket PC and the Port_Number

Please see A step by step guide to connecting for more details

Syntax: *remotesql*/Connect_To_Server

See also:

-0-

Create_Database

Creates a new database on the Pocket PC. Requires Database_Name, Password and Encrypt to be set

Syntax: *remotesql*.Close_Connection

See also Database_Name, Password and Encrypt

-0-

Drop_Database

Drops a database on the Pocket PC. Requires Database_Name to be set

Syntax: *remotesql*.Drop_Database

See also Database_Name

-0-

Execute

Execute a SQL string. This can be a 'Select' statement or a statement that does not return a record, such as 'Insert'. Records shows how many records have been affected by the command.

Syntax: *remotesql*.Execute

To read records, you can do similar to...

```
rs.Sql = "Select * from tdepots"  
rs.Execute  
While Not rs.EOF  
    lstRecords.AddItem rs.Returned_Data  
    rs.MoveNext  
Wend
```

See also: [Sql](#), [Field_Count](#)

-o-

Initialise

Initialises the DLL prior to use. Requires User_Name and User_Licence setting. For demonstration, use 'Evaluation' and 12345678 for these values. If the dll has not been initialised, then nothing will function.

When running as an evaluation version, message boxes appear after opening, reading etc.

Syntax: *remotesql*.Initialise

-0-

List_Bases

Lists all the databases found on the Pocket PC. Values affected are Database_Count and Databases

Syntax: *remotesql*/List_Bases

See also: Databases, Database_Count

-0-

List_Tables

Lists all the tables on the currently opened database. Values affected are Table_Count, Table_Type and Tables

Syntax: *remotesql*.List_Tables

See also: Table_Count, Table_Type and Tables

-0-

Listen_For_Connection

Puts the PC into 'Listen' mode, to listen for a connection from the Pocket PC. Needs the the Port_Number

Please see A step by step guide to connecting for more details

Syntax: *remotesql*/Listen_For_Connection

See also: Port_Number, Timeout

-0-

Movenext

Moves to the next record in the recordset.

Syntax: *remotesql*.Movenext

See also: Execute, Sql

-0-

Open_Database

Opens the the database on the Pocket PC. Needs a full path to the database (e.g. \My Documents\Mydb.sdf) in Database_Name and optionally a Password and Encrypt

Syntax: *remotesql*.Open_Database

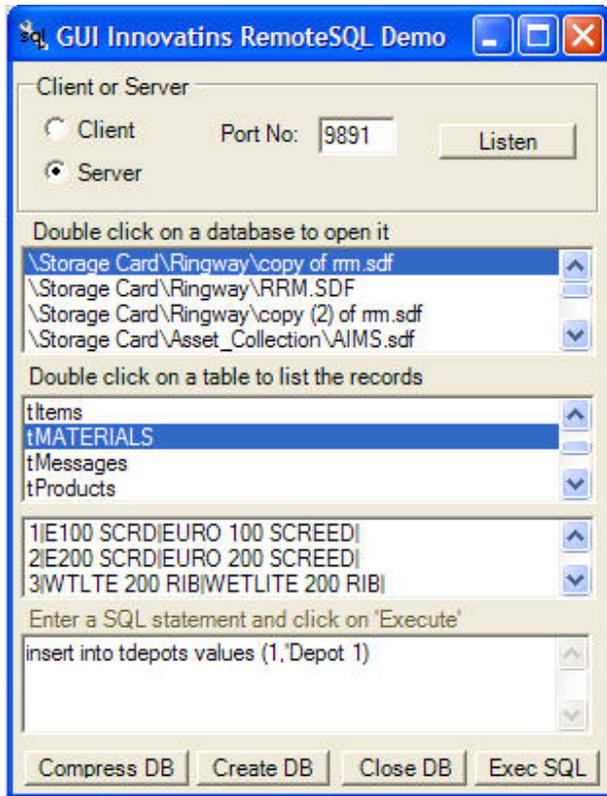
See also: Close_Database, Close_Connection

-0-

VB.Net Demo Program

VB.Net Code

Click on a hot spot to see the code behind the program, and see how simple it is to program...



-0-

Index

- A -

A step by step guide to connecting
Add Columns

- C -

Choosing your database version 14
CloseDown 82
Close_Connection 81
Close_Database 83
Column Length
Column Name
Components
Compress_Database 84
Connect Disconnect
Connected 52
Connecting
Connecting using a Network Card
Connecting using ActiveSync
Connection Settings 7
Connect_To_Server 85
Create a database
Create a table
Create Table
Create_Database 86
Creating a new column
Creating a table
Creating an index
Customising data base population 40

- D -

Data Type
Database Information
Databases , 55
Database_Count 53
Database_Name 54
Database_Versions 56
DB Loader 43
Drop Database
Drop Tables
Drop_Database 87

- E -

Encrypt 57
EOF 58
Error_Message 59
Error_Number 60
Execute 88

Execute SQL statements 37
Exit
Exporting data 38

- F -

Field_Count 61
Field_Len 62
Field_Name 63
Field_Type 64
Field_Value 65

- G -

Generate Database 39
Get Tables

- H -

Hide
Host_Name 66

- I -

Identity Columns
Identity Columns defined
Index List
Index Name
Indexed Field
Indexes 30
Info_Message 67
Initialise 89
Insert
Introduction

- L -

List Of Databases
Listen_For_Connection 92
List_Bases 90
List_Tables 91
Load from CSV file 42

- M -

Movenext 93

- O -

Open_Database 94

- P -

Password 68
PC Client
PC Server 15
PC Settings
Pocket PC Client
Pocket PC Icon
Pocket PC Server 19
Pocket PC Settings
Populate Database
Porting a database step by step 9
Port_Number 69
Programming the DLL 50

- Q -

Queries

- R -

Records 70
Refresh List
RemoteSQLCe.dll 51
Remove Column
Rename Tables 41
Restructuring a table
Returned_Data 71
Run a query

- S -

Script schema and data 48
Script the data 47
Script the schema 46
Script the Table Create
Scripting the database 45
Select
Select Tables
Separator 72
Server Name
Settings , 26
Show all records
Show Indexes
Sql 73
Status Window

- T -

Table Layout 28
Tables 25, 75
Table_Count 74
Table_Type 76
Time Out
Timeout 77
Totalling 27

- U -

Unique Index
User_Licence 78
User_Name 79
Using on the emulator 12
Using our DLL on the device 49

- V -

VB.Net Code 95
Version_Number 80

- W -

Working with query results 32
Working with SqlCEDesktop 23

© GUI Innovations Limited, 2006
www.gui-innovations.com
