

Teradata Administrator Demo Script

Teradata Administrator (WinDDI, Windows Data Dictionary Interface) is the system administration application that you use to perform database administration tasks on the associated Teradata Database server.

Run the Teradata Administrator Demo as follows:

Step 1: **Start the Teradata Database** via the Teradata Service Control program

- User must have Administrator privileges to start and stop the Teradata database.
- **Start>>Programs>>Teradata for Microsoft Windows Demo>>Teradata Service Control**
- In Teradata Service Control window click-on **"Start Teradata!"**
- Wait for "Teradata Running" message at bottom of Teradata Service Control window (This takes one to two minutes).
- End the Teradata Service Control program by selecting Exit from the File Menu.

Step 2: **Start Teradata Admininstrator & select database.**

- **Start>>Programs>>Teradata Administrator 6.0**
- Select **"DemoTDAT"** and click **OK** to connect to the Teradata Database
- Retail, Financial, Manufacturing, and Transportation are the included sample databases
- Highlight **"Retail"** by clicking on it
- Click **"ALL"** on the toolbar, a list of the tables, views, and macros appears. There are ten tables in the Retail database.

The screenshot shows the Teradata Administrator interface. On the left, a tree view displays the database structure, including 'DBC', 'console', 'Crashdumps', 'DBCManager', 'dbcmngr', 'dbqymgr', 'Default', 'financial', 'manufacturing', 'PUBLIC', 'qcd', 'retail', 'SysAdmin', 'SystemFe', 'Sys_Calendar', 'TDPUSER', 'tiwiz', 'tpch', 'transportation', 'tswiz', 'twbdemo', 'twm', 'twm_results', and 'twm_source'. The 'retail' database is selected, and a sub-tree shows '[Tables=10]'. The main pane displays a table with 10 rows, listing table names, types, fallbacks, versions, creator names, and comment strings.

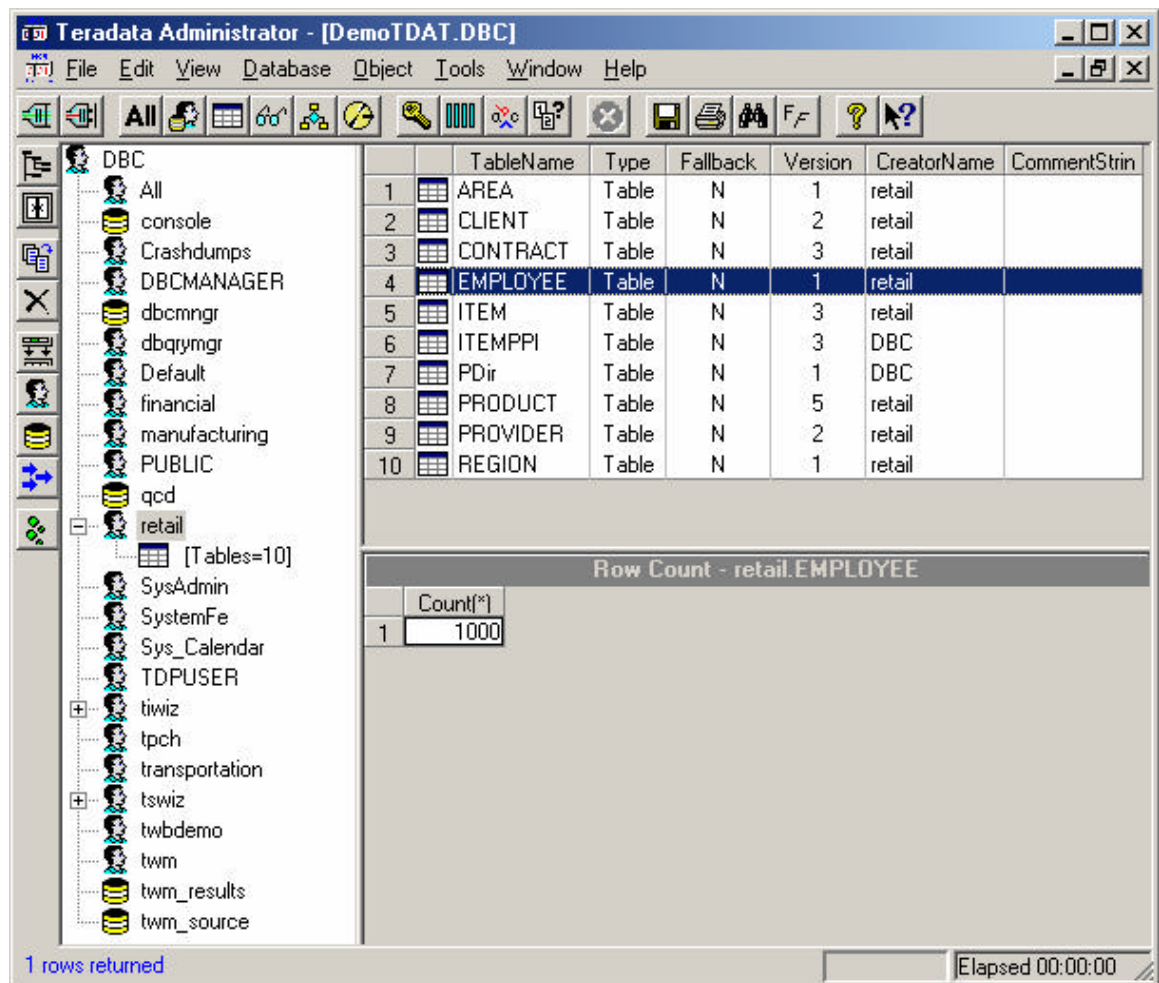
	TableName	Type	Fallback	Version	CreatorName	CommentStrin
1	AREA	Table	N	1	retail	
2	CLIENT	Table	N	2	retail	
3	CONTRACT	Table	N	3	retail	
4	EMPLOYEE	Table	N	1	retail	
5	ITEM	Table	N	3	retail	
6	ITEMPPI	Table	N	3	DBC	
7	PDlr	Table	N	1	DBC	
8	PRODUCT	Table	N	5	retail	
9	PROVIDER	Table	N	2	retail	
10	REGION	Table	N	1	retail	

10 rows returned

Elapsed 00:00:00

Step 3: View tables.

- Highlight a table by clicking on “**Employee**”,
- **Right mouse clicking** will bring up a menu of several commands which you can select
- For instance, highlighting and clicking on “**Row Count**” will display the row counts of the table.



- Next you can see how to create users and databases from this interface. Click on **create user faces icon** on the left. Click "close" since we are not making any users at this time.
- Move your mouse over the drop "X" icon on the left. You can drop tables and users very easily.
- Click-on the **Grant/revoke** permissions (little arrows) icon on the left. You can grant and revoke permissions to tables and columns in the database. Click "close".
- Click-on the **move space** icon. You can show how easy it is to move the logical space in the database. We also included a move space icon that reallocates the logical amount of space assigned to a user or database.
- **Exit** Teradata Administrator

Teradata SQL Assistant

Designed to provide a simple way to execute and manage your queries against a Teradata, or other ODBC compliant database, SQL Assistant stores your queries for easy re-use, and provides you with an audit trail that shows the steps that produced your current results.

In this demo, experience the simplicity and ease of use of this powerful query tool. This 20-minute hands-on demo will show you some of the ways in which you can use this tool in order to maximize your efficiency. Hands-on activities will include connecting to a Teradata database, executing a query, and manipulating the results.

In this short lesson we will:

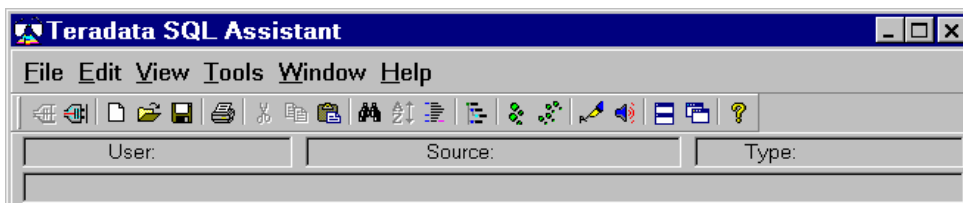
1. Start Teradata SQL Assistant
2. Connect to a Teradata system
3. Demonstrate SQL Assistant functions

Step 1: Start Teradata Database

- *Users must have Administrator privileges to start and stop the Teradata database.*
- **Start >> Programs >> Teradata for Microsoft Windows Demo >> Teradata Service Control**
- In Teradata Service Control window click-on **"Start Teradata!"**
Wait for "Teradata Running" message at bottom of Teradata Service Control window (This takes one to two minutes).

Step 2: Start SQL Assistant


- To start SQL Assistant click on the following menu from the Windows Start bar:
Start >> Programs >> Teradata SQL Assistant 6.1
You should now see an application that contains 2 windows – Query and History.
- If the History window is not visible click the **View >> Show History** menu.
The upper part of the application provides a Toolbar and some helpful information. It should look similar to this:



- If you do not see the User / Source information click the **View >> Information Bar** Menu.

Step 3: Connect to a Teradata Database

SQL Assistant uses the Microsoft ODBC standard to interact with the database. Before you can connect to a database you must first create an ODBC Data Source. This has already been done for you, but if you need to create a Data Source yourself you would use the Microsoft ODBC administrator application. This can be accessed either through the Windows Control Panel, or through the SQL Assistant **Tools** menu.

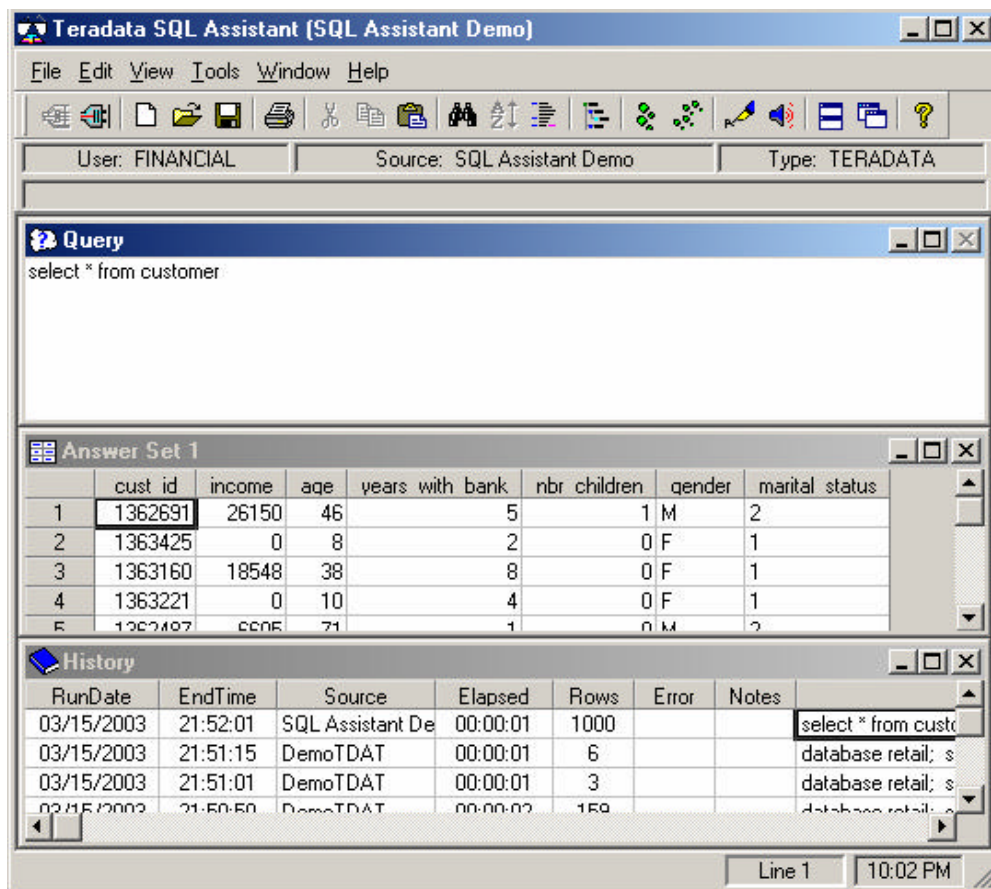
- To connect to a database simply click the left most tool on the Toolbar .

- This will display the Select a Data Source dialog.
- Click on the **Machine Data Source** tab
- Double-click on the data source called **SQL Assistant Demo**.
This will automatically connect you to your local test system.

Step 4: SQL Assistant overview

SQL Assistant consists of a main window and 3 types of child windows.


- A Query window where you enter the SQL queries you wish to execute.
- Any number of AnswerSet windows where your query results are displayed.
- A History window where statistics from previously executed queries are displayed.




Note that the History window contains information about those queries that have already been executed. This window can be displayed or removed using the **View>> Show History** menu.

Step 5: Enter and run a Query

Type in Query window "**select * from customer**" or Click on a Select statement, in the column containing the SQL, in the History window. That query will automatically be copied into the Query window ready for re-submission.

- Submit this query by clicking the **Execute** tool button , or press **F5**.

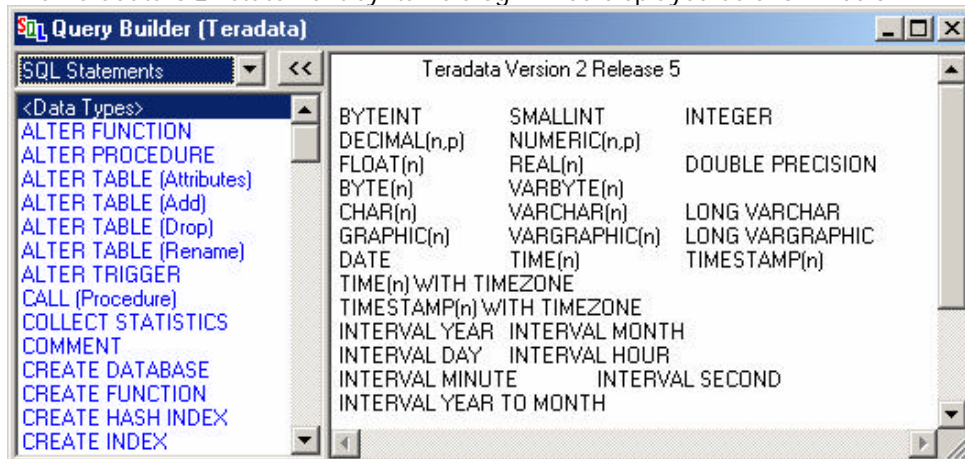
Note that if your query contains multiple statements, which you wish to execute in parallel, you should press the **Execute Parallel** button  instead. The results from your query will be displayed in a newly created Answer Set window.

Step 6: Build a query using the Query Builder

- Right click in the Query window, then select the **Query Builder** menu

Note that pressing **F2** will also display this window.

The Teradata SQL statement syntax dialog will be displayed as shown below:



- Select a statement in the list box at the left of this dialog
An example of that statement will be displayed to the right.
- Double click on a statement in the list.
The statement you clicked on will be inserted into the Query window at the current insertion point. If you wish to insert the statement at a different place you may drag the statement to the query window and drop it where you would like it to be inserted.
Note that if you wish to replace your existing query you may right click on a statement and then click the **Replace Query** menu.

Step 7: View Stored Procedures via Query Builder

- Drop down the combo box at the top left and select **Procedure Builder**.
A list of available Stored Procedure statements will appear. These can be inserted into your query in the same ways.
Note that the contents of this dialog can be changed by a customer to better reflect their own systems, or even to display a list of pre-defined (custom) queries that users simply select from. (Please refer to the Help file for further information on this topic. Press **F1** for help.)
- Close the Procedure Builder window by clicking on **X** in the upper right corner.

Step 8: Find command

- Right click in the Query window, then select the **Find** menu
The Find a String dialog will be displayed.
- Enter a string to search for and press **Find Next**.
The string you entered will be highlighted in the query. (Or a message on the bottom left of the Teradata SQL Assistant window will say 'Not Found'.)

Note that you can repeat this procedure to find additional occurrences, or close the Find dialog and then use the **Edit, Find Next** menu, or simply press **F3**.

Note that similar functionality is available to Replace one, or all, occurrences of a string within the query. This is often useful for changing a database or table name within a script or macro.


Step 9: Explore AnswerSet

- The AnswerSet window allows many formatting options
 - Columns can be hidden or resized.
 - A Totals line can be added to the bottom of the window.
 - The number of decimal places displayed in numeric columns can be changed.
 - Numeric values can optionally display thousand separators (commas)
 - Fonts and colors can be changed on a cell by cell basis.
 - Grid lines and Row Headers can be removed
- Click on one of the vertical bars between columns in the header line of the Answer Set window and drag it to the left or right. The column width will be adjusted to match.
- Right click in the Answer Set window, then select the **Edit>>Add Totals** menu
An additional line will be added to the bottom of the Answer Set window showing the total for each numeric column. (You may need to scroll down to see this.)
- Select a block of cells, then Right click and select the **Format Cells** menu
A Format Cells dialog will be displayed.
- Click the **Background** button, then select a color by clicking on it in the Color dialog. Click **OK** to close the Color dialog, then click **OK** again to close the Format dialog.
The resulting color change will be reflected in the highlighted cells.



Answer Set 1							
	cust id	income	age	years with bank	nbr children	gender	marital status
996	1362508	9802	66	6	0	F	3
997	1362895	26387	56	6	1	M	2
998	1362977	0	12	4	0	F	1
999	1363364	15100	37	7	0	F	2
1000	1362773	0	8	2	0	M	1
1001	Totals:						
1002	1362987891	16978026	33744	3446	534		


Alternatively, you could save the data to a file (using **File>>Save As**) and manipulate it using another application. The data can be saved as:

- A delimited Text file. No formatting is saved. (*.txt)
- A Microsoft Excel 97 file. Formatting is saved. (*.xls)
- An HTML table. Formatting is saved. (*.htm)
- An XML file. No formatting is saved. (*.xml)

Note that the results of a query can also be Exported directly to a file instead of returning the data to an Answer Set window. Use the **File>>Export Results** menu, or the  tool button to switch on this option for future queries.


Step 10: Add Notes

- Right click in the Query window, then select the **Prompt for Notes** menu, or click .
Then submit the query by pressing .

- A Query Note dialog will be displayed.
- Enter some text into this window and click **OK**.
After the Answer Set has been returned note that your text note appears in the Notes column of the history window. This feature can be used to remind you of the purpose for that query.
- **Double click** the Notes cell in the History window.
The Query Note dialog will be displayed to allow you to change the note. (or add one)
- **Double click** a row in the History window. (Not in the Notes column)
An Edit History dialog will be opened. This dialog allows you to look at the detailed completion messages from a previous query. (Multi statement queries will display a completion message for each statement.)
This dialog also allows you to modify the Query, Notes, or Results Message fields. (In general you would probably only change the Notes field... which may be done more easily, as above.)
- IMPORTANT turn off the prompt for notes. Right click in the Query window, then select the **Prompt for Notes** menu, or click .

Step 11: Import function

A single statement can be executed many times, with different data each time, by using the Import function.

- Click the **File>>Import Data** menu, or the  tool button, to switch this option on / off.

In order to use Import mode the query must contain at least one **?** character indicating that data is to be inserted at that point in the query.

Although Import mode is most often used for Insert statements it can be used for any statement.

We will not attempt to use Import mode in this demo since it requires the creation of a matching data file.

When you submit a query in Import mode you will be asked for the name of a file to provide the input variables to the statement. Each line of the file must contain exactly the same number of data values as there are **?** symbols in the query.

The format of the Import file is determined by settings on the Options dialog. These same settings determine the format of data exported to a delimited text file.

For more information on the use of Import mode please refer to the help file. (Press **F1**)

Step 12: Explorer Tree


A database Explorer Tree can optionally be displayed when you are connected to a data source. Initially up to 3 databases will be loaded into the tree:

Your User Id

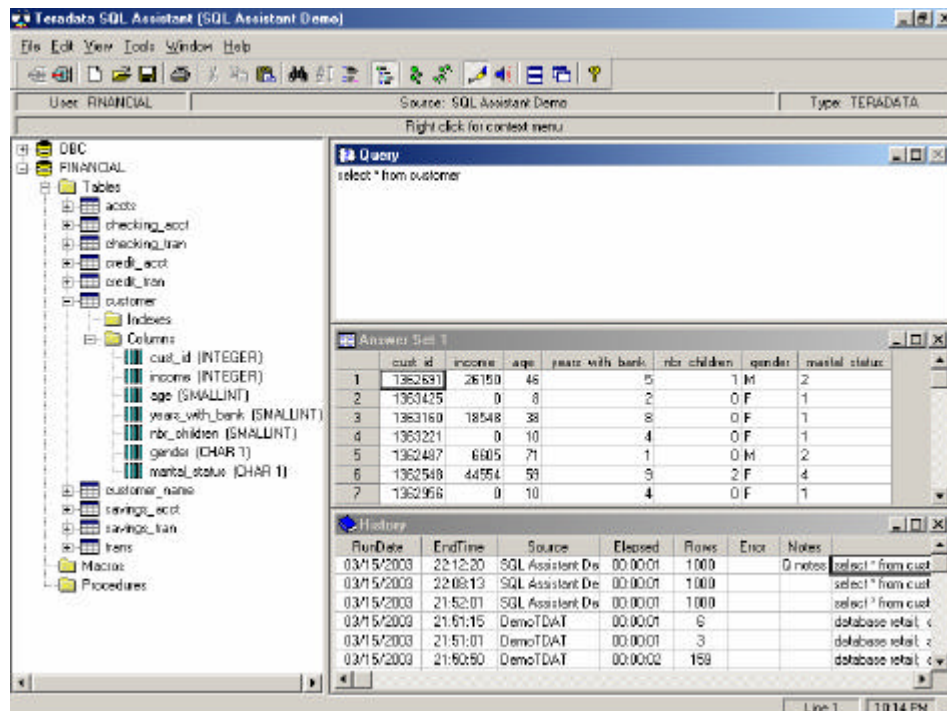
Your Default Database

The database "DBC"

You may optionally add additional databases that you are interested in.

- Click the **View>>Explorer Tree** menu, or the  tool button, to display or hide the Explorer.

The picture below shows how SQL Assistant might look after you have opened a few of the Tree nodes.



- To open a node you simply click on the + sign at the left, or double-click the node, or highlight it and then press **Enter**, or the **®** key. Click on + in front of FINANCIAL to expand.
- Double click on the **Table** folder to view the table names.
- You may drag names from the tree into your query in order to avoid typing, or spelling mistakes.
- If you hold down the **CTRL** key when you start the drag operation a comma will be inserted after the name.
- Right click on a table in the Explorer Tree, then click the **Show Definition** menu. The table definition will be displayed in the Query window.

Step 13: Query Formatting

Sometimes you are given a query that is very hard to read. To help in this situation we have added some Query Formatting functions to SQL Assistant.

- Enter a long query such as the following into the Query window (or just copy the SQL below here in the script into the query window).
**select first_name,last_name,Acct_Nbr, case acct_type /*Use readable Account Names*/
when 'CK' then 'Checking' when 'SV' then 'Savings' when 'CC' then 'Credit Card'
else acct_type
end (Title 'CustAcct Type') from accts left outer join customer_name on
accts.cust_id = customer_name.cust_id
order by 2**

```
Query
select first_name,last_name,Acct_Nbr, case acct_type /*Use readable Account Names*/
when 'CK' then 'Checking' when 'SV' then 'Savings' when 'CC' then 'Credit Card' else acct_type
end (Title 'CustAcct Type') from accts left outer join customer_name on accts.cust_id = customer_name.cust_id
order by 2
```

- Click the **Edit>>Format Query** menu to turn the above Query into:

```
Query
Select first_name,last_name,Acct_Nbr,
Case acct_type /*Use readable Account Names*/
When 'CK' Then 'Checking'
When 'SV' Then 'Savings'
When 'CC' Then 'Credit Card'
Else acct_type
End(Title 'CustAcct Type')
From accts Left Outer Join customer_name
On accts.cust_id = customer_name.cust_id
Order By 2
```

- Highlight the last line that is "Order By 2" and press the **TAB** key:
The "Order By" will be indented to align below the "On".
We have also implemented a more intelligent processing of the **Enter** key. Whenever you press **Enter** the new line will automatically be indented to the same level as the line above. You can of course remove this indentation, by pressing the **Backspace** key, if indentation is inappropriate.

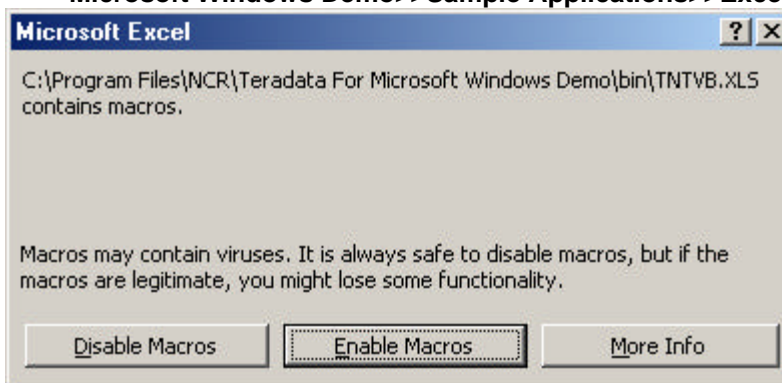
In conclusion, we hope that we have given you a brief insight into some of the capabilities of the SQL Assistant product.

Excel Query Demo Script

The Excel Sample Query Application shows a marketing query, for a fictitious company XYZ, that queries the Teradata Database from an Excel Spreadsheet using an RDO connection. Rows are retrieved from the **retail** database included with the demo. To perform this demo, you must have Microsoft Excel on your PC.

Step 1: Start Teradata and Excel Application

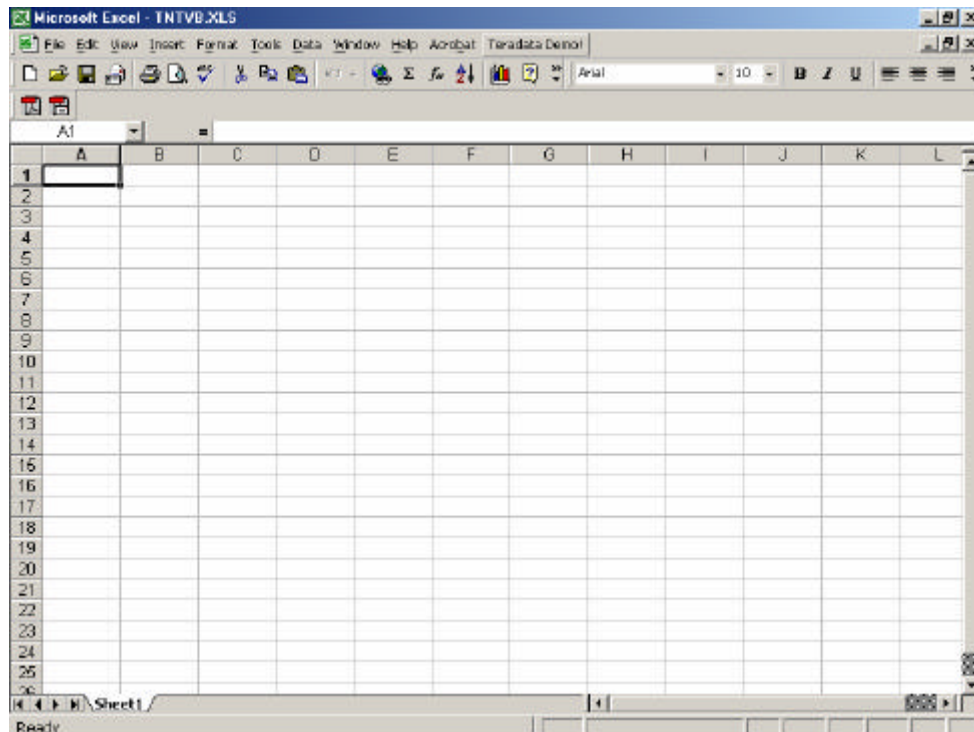
- *User must have Administrator privileges to start and stop the Teradata database.*
- **Start>>Programs>>Teradata for Microsoft Windows Demo>>Teradata Service Control**
- In Teradata Service Control window click-on **Start Teradata!**
- Wait for "Teradata Running" message at bottom of Teradata Service Control window (This takes one to two minutes).
- When you've completed the demo, end the Teradata session by selecting **Stop Teradata** in the Teradata Service Control program.
- Start the Excel Query Sample Application via **Start>>Programs>> Teradata For Microsoft Windows Demo>>Sample Applications>>Excel Sample Query**



- Answer **Enable macros** so that the sample code runs. This message may differ based on the versions of Microsoft Windows and Microsoft Office installed.

Step 2: Start Demo by connecting to the Teradata database.

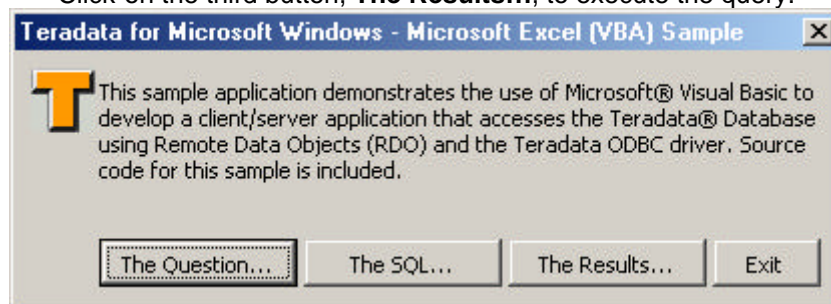
- Click-on the **Teradata Demo!** button on the menu bar (far right).



- Click-on the two left buttons in the application to see the business question and the SQL.

Step 3: View results:

- Click-on the third button, **The Results...**, to execute the query.



Microsoft Excel - TNTVB.XLS

File Edit View Insert Format Tools Data Window Help Acrobat Teradata Demo!

A1 = C_NAME

	A	B	C	D	E	F
1	C_NAME	C_ADDRESS	C_PHONE	N_NAME	C_MKTSEGMENT	
2	Jennifer Patt	632 Florence Dr.	31-869-580-1707	VIETNAM	FURNITURE	
3	Joseph Airdo	231 Sheriden Rd.	31-542-178-2520	VIETNAM	BUILDING	
4	Joseph Airdo	1660 Park Ave.	31-704-669-5769	VIETNAM	BUILDING	
5	Maxwell Schwartz	3181 Barkwood Ct.	31-373-307-4091	VIETNAM	HOUSEHOLD	
6	Olvera Toch	1450 Harding Ave.	31-787-534-8723	VIETNAM	AUTOMOBILE	
7	Patrick O'Brill	1550 Ridge Rd.	31-367-294-4048	VIETNAM	AUTOMOBILE	
8	Paul Prost	1235 Easton Rd.	31-952-552-9584	VIETNAM	AUTOMOBILE	
9	Peter McVee	3385 University Ave.	31-231-377-9535	VIETNAM	FURNITURE	
10	Peter McVee	1550 Ridge Rd.	31-149-119-1456	VIETNAM	FURNITURE	
11	Quincy Jones	1860 Parkside Ln.	31-562-675-6475	VIETNAM	AUTOMOBILE	
12	Sandra Glassco	2024 St.Johns Ave.	31-157-561-4106	VIETNAM	HOUSEHOLD	
13	Sheri Gordon	1882 St. Johns	31-659-617-1632	VIETNAM	FURNITURE	
14	Shui Tom	1658 Second St.	31-155-275-3981	VIETNAM	FURNITURE	
15	Stephanie Ulpright	1777 balsamic Ave.	31-247-536-6143	VIETNAM	MACHINERY	
16	Suzanne McNair	844 Spruce St.	31-296-111-5448	VIETNAM	FURNITURE	
17	Thomas Seio	3181 Barkwood Ct.	31-835-306-1650	VIETNAM	AUTOMOBILE	
18	William Brown	3100 Trailer Way	31-389-883-3371	VIETNAM	BUILDING	
19	Barbara Fisher	430 Oakland Drive	34-768-700-9764	UNITED STATES	HOUSEHOLD	
20	Dario Medina	115 Judson Rd.	34-941-824-8063	UNITED STATES	FURNITURE	
21	Dario Medina	224 Highwood Ave.	34-861-760-4796	UNITED STATES	AUTOMOBILE	
22	Dave Hallsten	425 Lake Ave.	34-457-910-7430	UNITED STATES	BUILDING	
23	David Wiener	22 Clay rd.	34-956-232-6103	UNITED STATES	HOUSEHOLD	
24	Deanra Eno	38976 Forest View Rd.	34-718-798-7751	UNITED STATES	MACHINERY	
25	Grace Kelly	1701 W. Mellody Rd.	34-992-529-2023	UNITED STATES	HOUSEHOLD	
26	Jason Grace	12 Skokie Valley Rd.	34-328-123-7678	UNITED STATES	BUILDING	

Ready

- To exit Excel click-on the **X** in the upper-right corner.
- When asked to save changes select **No**.

This concludes the Excel Query Demo.

Sample Fastload Script

Filename: employee.fld

Invoke (from the cmd-window): fastload < employee.fld

```
logon demotdat/dbc,password ;
```

```
database TUWIEN;
```

```
drop table EMPLOYEE_stage ;
```

```
drop table EMPLOYEE_ERR1 ;
```

```
drop table EMPLOYEE_ERR2 ;
```

```
CREATE SET TABLE EMPLOYEE_stage ,NO FALLBACK ,
      NO BEFORE JOURNAL,
      NO AFTER JOURNAL
      (
        EmpNo    VARCHAR(15) CHARACTER SET LATIN NOT CASESPECIFIC NOT NULL
      ,Name      VARCHAR(18) CHARACTER SET LATIN NOT CASESPECIFIC NOT NULL
      ,Address   VARCHAR(40) CHARACTER SET LATIN NOT CASESPECIFIC NOT NULL
      ,Phone     VARCHAR(35) CHARACTER SET LATIN NOT CASESPECIFIC NOT NULL
      ,DeptNo    VARCHAR(10)
      ,Salary    VARCHAR(15)
      ,YrsExp    VARCHAR(15)
      ,DOB       VARCHAR(10) /*DATE FORMAT 'YYYY-MM-DD'*/
      ,MedStat   VARCHAR(10) CHARACTER SET LATIN NOT CASESPECIFIC
      ,EdLev     VARCHAR(10)
      ,Note      VARCHAR(79) CHARACTER SET LATIN NOT CASESPECIFIC NOT NULL
      )
```

```
UNIQUE PRIMARY INDEX ( EmpNo ) ;
```

```
SET RECORD      VARTEXT ";"
      DISPLAY_ERRORS ;
```

```
DEFINE FILE =C:\TU_Wien\employee.txt ;
```

```
RECORD 2 ;
```

```
BEGIN LOADING EMPLOYEE_stage
      ERRORFILES EMPLOYEE_ERR1, EMPLOYEE_ERR2 ;
```

```
INSERT EMPLOYEE_stage.* ;
```

```
END LOADING ;
```

```
QUIT ;
```


Sample Bteq Script

Filename: employee.bteq

Invoke (from the cmd-window): bteq < employee.bteq

```
logon demotdat/dbc,password ;

sel date, time ;

database TUWIEN;

help database TUWIEN;

show table employee_stage ;

drop table TUWIEN.EMPLOYEE;

CREATE SET TABLE TUWIEN.EMPLOYEE ,NO FALLBACK ,
          NO BEFORE JOURNAL,
          NO AFTER JOURNAL
        (
          EmpNo    VARCHAR(15) CHARACTER SET LATIN NOT CASESPECIFIC NOT NULL
        ,Name      VARCHAR(18) CHARACTER SET LATIN NOT CASESPECIFIC NOT NULL
        ,Address   VARCHAR(40) CHARACTER SET LATIN NOT CASESPECIFIC NOT NULL
        ,Phone     CHAR(15)    CHARACTER SET LATIN NOT CASESPECIFIC NOT NULL
        ,DeptNo    SMALLINT
        ,Salary    DECIMAL(16,2)
        ,YrsExp    BYTEINT
        ,DOB       DATE FORMAT 'YYYY-MM-DD'
        ,MedStat   CHAR(1) CHARACTER SET LATIN NOT CASESPECIFIC
        ,EdLev     BYTEINT
        ,Note      VARCHAR(79) CHARACTER SET LATIN NOT CASESPECIFIC NOT NULL
        )
UNIQUE PRIMARY INDEX ( EmpNo );

insert into employee
sel * from employee_stage ;

collect statistics on EMPLOYEE index ( EmpNo ) ;

.quit
```