

Power Graph for Windows

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Overview

Power Graph is a Windows-based utility that utilizes the new Open DataBase Connectivity (ODBC) standard, which provides applications with a common interface for a variety of database packages. Power Graph is able to access data from any database with a "level 1" or higher ODBC driver.

In Power Graph, you must first issue a query on the database, selecting the table and columns to display and filtering or sorting the data if desired. Statistical queries, such as sum, maximum, minimum, or the average of a column, can also be generated. Once the query is issued, the resulting data set from the query will be displayed in a spreadsheet-like grid. However, viewing your data from within Windows is not all...

Once the query results are displayed, you can create a variety of full-color graphs and charts using your resulting data! All you select is the type of chart, which column serves as the chart legend, which columns serve as the data to display, and which rows should be displayed. Power Graph then creates your graph based on the choices you've applied to the resulting data set.

Once the graph is created, you can modify any of the graph titles, labels, and fonts, as well as any styles for that particular graph type. Once you have created the graph you desire, you can print the graph, copy it to the Windows Clipboard for insertion into another application, or save it to disk.

Graphing has finally come to your database and it couldn't be easier!

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Technical Support

Site licences and multi-user versions are available. Customization of this product is possible on a case-by-case basis. Contact the company below for more information.

Most PC and mainframe databases have high performance ODBC drivers available from a variety of sources. Contact the company below for a complete listing of sources for available ODBC drivers and for a listing of other available ODBC applications.

For any problems you encounter that are not covered in this help system, or for any suggestions with future releases of Power Graph, contact technical support at:

MOJAHMBEE LTD.

Software Development
1630 30th Street #474

Boulder CO 80301
USA

(303)440-4105
voice/fax

Internet E-mail:
eashjm@netcom.com

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dBASE and Paradox are registered trademarks of Borland, Intl.
Btrieve is a registered trademark of Novell.
All other databases are registered trademarks of their respective companies.

User Options

Several query and graph options are available to you by selecting *User Options* under the *File* menu. It is recommended you set all options before creating a query or graph, but any option can be modified at any time.

Number of Decimal Places

Within the query result grid, you can control the number of decimal places displayed with numerical data types. The default is 2. Modify this number to change the displayed decimal places. This is helpful if you are dealing with numeric data types with high scale (decimal) values.

If the grid has already been displayed, the query data will be reloaded for the change to take effect.

Date/Time Stamp

The graph created can be stamped with the current date and time in the lower left-hand corner. Select this box to include the date/time stamp on the graph. The font and size of the date/time stamp can be altered by selecting *Set Font* under the *Text Labels* menu.

If the graph has already been displayed, it will be recreated for the change to take effect.

Default ODBC Data Source

You can select the default ODBC Data Source that should be used for all new queries. If another Data Source is chosen during the query building process, the new Data Source will remain the default for the remainder of the Power Graph session.

Select *None* to not have a default Data Source. If you only have one database on your system, it is helpful to make that database selection the default.

Initial Directories

You can select the initial directories that Power Graph displays when connecting a database, loading/saving a query, and loading/saving a graph. Enter a new directory so that Power Graph initially displays that directory when prompting for a file name. If the directory is invalid, the Power Graph subdirectory is displayed.

Entering a new directory has no effect on moving around the various drives of the computer. A database, query or graph can be loaded or saved to any directory on any valid drive.

Power Graph Quick Start

This is a tutorial to get you familiar with using Power Graph. You will be using the sample dBASE III databases provided with Power Graph that are located in the Power Graph directory.

NOTE: If you do not have the dBASE or FoxPro ODBC driver installed, you cannot utilize the provided sample databases. Substitute your own database and ODBC driver if this is the case. A database table with a variety of numerical values should be used.

Building Your First Query

Once Power Graph is loaded, select Create New Query from the *File* menu. This command takes you through the query creation process, so that the desired database data can be selected.

First, Power Graph asks for the ODBC data source to use. Select a 'generic' dBASE III compatible data source, which is the database type of the sample databases. See ODBC for more information on setting up ODBC data sources. A 'generic' data source and dBASE or FoxPro ODBC driver are required to access the sample databases.

Since this is a 'generic' data source, you will then be prompted to select a database. Select the SAMPLE1.DBF database, located in the main Power Graph directory, by clicking on the database filename. Click *OK* to continue. With dBASE databases, the database you just selected informs Power Graph of the directory to use. See Connecting to a Database for more information.

With dBASE, all the database files in the directory you selected are actually tables. Select the table you wish to use. The database you just selected will be highlighted. Next, you must select the type of query you wish to build. Click the *Generate Query* button to continue with the query creation process. See Selecting a Table for more information.

A list of all the available columns will display. Click the *Select All Columns* button to include every column in the query. No filters or sorts will be added at this time. By following these steps, the entire contents of the table will be displayed. Click *Done* to issue the query. See Building a Query for more information.

A spreadsheet-like grid will be displayed, showing all the data contained in the SAMPLE1 database.

Building Your First Graph

Select the *Define Graph* button from the query result window to define the portions of your graph. This dialog box allows you to identify the desired chart type, columns to graph, and legend column.

The first combo box lets you select the chart type you wish to create. Select Bar Chart, the default chart type.

The second combo box lets you define the column to use for the chart legend. Select the STATE column.

Next, click the *Choose Graph Data* button to select the columns you wish to graph. A window will display all the columns that are numeric in nature and can be graphed. Click the *Select All Columns* button to highlight all of the graphable columns. This will give us 12 months of data to graph. Click *Done* to return to the Define Graph window, then click *Done* there to return to the query result window.

Selecting Rows to Graph

To include a row in the graph, click on the row number, which will highlight that particular row. You can select up to 12 total rows to graph.

Click *Create Graph* to create the graph with the selected attributes.

Manipulating Your Graph

Now that the graph is being displayed, you can modify the graph in any way.

To change the graph data that is displayed, select the *View Data* menu option to return to the query result window. From there, you can modify the rows and columns or the database query itself.

To modify the query, click the *Edit Query* button. To modify the graph attributes such as the graph legend, graph data columns or graph type, click the *Define Graph* button to return to the graph setup window. To modify the rows being displayed, simply select new rows or unselect currently highlighted rows by clicking on the row number. See *Changing Graph Data* for more information on modifying the query or the graph data displayed.

Clicking *Create Graph* will recreate the graph with the new data that you selected. Clicking *Cancel* will return to the previous graph.

Modifying Graph Text and Fonts

To modify the titles on the graph, select *Graph Titles* under the *Text Labels* menu. The main graph title, the X-axis and the Y-axis titles can be modified. After making your changes, click *Done* to redraw the graph.

To modify the data (X-axis) column labels, select *Data Labels* under the *Text Labels* menu. You can modify any of the data column labels from here. You could change the abbreviated month names to the entire name. If you wish to change the legend texts, select *Legend* under the *Text Labels* menu. Change any legends you wish to, perhaps changing the full state names to an abbreviation. Clicking *Done* will redisplay the graph with the new data labels or legends.

See [Changing Graph Titles](#) for more information on changing any of the graph text.

To change the font of any text displayed on the graph, select *Set Font* under the *Text Labels* menu. Power Graph allows you to use any font that you have installed in Windows. See [Changing Graph Fonts](#) for more information on modifying text fonts.

To add a date/time stamp to the lower left-hand corner of the graph, select [User Options](#) under the File menu. Enable the date/time stamp and click *Done* to continue. The current date and time will now be displayed on the graph.

Changing Chart Styles

Each graph type has multiple styles that can be selected. To change the styles of the current graph type, select [Bar Chart](#) under the *Chart Options* menu. It will have a check mark next to it, as it is the chart type of the graph currently being displayed.

This displays a window of all different bar chart types and styles. Modify the chart any way you like, such as making it a 3D bar chart. Click *Done* to redisplay the graph with your new graph styles, or click *Cancel* to discard any changes.

To display the graph using other chart types, simply choose that type from the *Chart Options* menu.

Let's change our bar chart to an area chart by selecting [Area Chart](#) under the *Chart Options* menu. Select the area chart styles, such as making it a 3D area chart. Click *Done* to redisplay the graph in the new chart type.

Using Your Graph

Once you are satisfied with the entire graph (data, text, chart type, and style), there are 3 ways to utilize your graph: you can print the graph, save the graph to disk, or copy the graph to the Windows Clipboard.

If you wish to print the graph, select Print Graph... under the *File* menu. This will allow you to print your graph to any printer set up in Windows. You can also specify the number of copies to print, as well as portrait or landscape printing orientation.

If you wish to save the graph for future use or viewing, select Save Graph As... under the *File* menu. This will allow you to save the graph as a Windows bitmap file. The saved file can be directly imported into a Windows word processor or painting program.

If you wish to copy the graph to the Windows Clipboard, select Copy to Clipboard under the *File* menu. This will allow you to paste the graph into any other Windows application that supports graphics.

Your query can be saved by selecting Save Query As... under the *File* menu. This allows you to easily reissue the same query at a future time.

Building Statistics

Now that you are familiar with building queries and the subsequent creation of a graph from that data, we will cover the other type of query possible, statistics.

We will create a statistical query from the SAMPLE2 database, which looks like this:

<i>Column Name</i>	<i>Description</i>
BUSINESS	Area of business, broken down into several categories.
ACTIVITY	Activity of data, broken down into Sales, Marketing, and Profit.
MO_JAN,MO_FEB,MO_MAR,MO_APR,MO_MAY,MO_JUN,MO_JUL,MO_AUG,MO_SEP,MO_OCT,MO_NOV,MO_DEC,VOLMIL	Monthly data.

Select the *View Data* menu option to return to the query result grid for the previous query on SAMPLE1. Click the *New Table* button to generate a new query on a different table. Select the SAMPLE2 database and click *Generate Statistics* to build a new statistical query.

This brings up the Build Statistics window. We will generate the sum of all months grouped by their specific activity (Sales, Marketing or Profit).

Select *Sum Of Column* as the statistical operation. Next, click the column you wish to generate the statistic from. Click the MO_JAN column, since it is the first column of data. Then, since we wish to group the data according to activity, select the ACTIVITY column in the Group By column list. Click *Add Statistic* to add the statistic to the query.

Add the rest of the month columns by clicking the appropriate column (MO_FEB...MO_DEC) and clicking *Add Statistic* to add the statistic to the query. You do not have to click the Group By column again, as once a Group By is selected, it will affect all statistics generated in that query. Once all the statistics are entered, click *Done* to process the statistical query.

Since we grouped our statistics by the ACTIVITY column, our result data will consist of three rows, with each column of monthly data being summarized by Marketing, Profit, and Sales. A variety of other statistics can be generated, such as MAXIMUM, MINIMUM, AVERAGE, and COUNT. The result data can be graphed the same as we did in our first example.

This tutorial was intended to get you familiar with all the query and graphing aspects of Power Graph. Now try your own data!

Defining Your Graph

Once you have issued a query and the resulting data is displayed, you can determine what data to create a graph out of.

By selecting the *Define Graph* button from the query result window, you can set up how your data will be placed into the graph and what type of graph to use.

The Graph Setup window will display, having three options to select: the graph type, the legend column, and the data column(s).

First, select the type of graph you wish to create. There are a multitude of chart types and styles to choose from. See [Chart Types and Styles](#) to see which is best for you. The default graph created is Bar Chart.

Next, select your legend and data columns. See [Graph Legend](#) and [Graph Data](#) for more details as to the purpose of these choices.

Click *Done* to return to the query result window.

In the query result data grid, select the rows you wish to include in the graph, up to a maximum of 12, by clicking on the row number. Click the upper left-hand button of the grid to include all rows.

Click *Create Graph* to create the graph with the desired data and attributes. Select *View Data* from the menu to return back to the query result window.

Chart Types and Styles

There are a variety of chart types and styles available in Power Graph:

Bar Chart

Pie Chart

Area Chart

Line Chart

Tape Chart

Log Linear Chart

Polar Chart

High-Low-Close Chart

Bar Chart

Selecting this type creates a graph using color bars from the X-axis to the point of data on the Y-axis.

Select data by highlighting a legend column and up to 12 data columns. Up to 12 rows of data can be selected for graphing.

If you are including only one row of data in the graph, enable the *Do Not Draw Legend* style to remove the single legend that is displayed.

Removing any text from the graph screen results in a larger overall graph itself. The graph may be enlarged by enabling the *Do Not Draw Labels on Axes* or the *Do Not Draw Legend* styles, or by removing graph titles. See [Changing Graph Titles](#) for more information.

Dimensions

You must initially determine whether you would like a 2 or 3 dimensional bar chart.

Bar Chart Types

Clustered Bar Chart	Creates a bar chart where the legend data bars are clustered together by data column.
Stacked Bar Chart	Creates a bar chart where the legend data bars are stacked upon each other, giving a grand total by data column.
Clustered in Z Axis << 3D Bar Chart Only >>	Creates a bar chart where the legend data bars are clustered together depth-wise by data column. Sorting the query result data in descending order is recommended, otherwise data could be obscured.
Horizontal Bar Chart	Creates a Clustered Bar

Chart style graph that is along the Y-axis instead of the X-axis.

Stacked Percentile Format

Creates a Stacked Bar Chart style graph that is based on percentage of each piece of legend data to the total of all legend data, by data column.

Styles

Reverse Bar Order

<<*Horizontal Bar Chart Style Only*>>

Reverse the order of the data columns along the Y-axis.

Draw X Grid

Draw grid lines along the X-axis.

Draw Y Grid

Draw grid lines along the Y-axis.

Do Not Draw Labels on Axes

Do not draw X-axis or Y-axis labels.

Do Not Draw Legend

Do not draw legend text.

Legend Text Same Color as Symbol

Make legend text the same color as the color it represents.

Pie Chart

Selecting this type creates a circular graph using color areas to represent "pieces" of data. All the data is represented by the entire "pie" and each "piece" is sized to how much of the total "pie" it represents.

Select data by highlighting multiple rows with one column of graph data, or one row with multiple columns of graph data. A legend column does not need to be defined as no legend will be displayed for a pie chart. Negative and zero values cannot be graphed with Pie Chart.

If too many "pieces" exist in the pie chart, data labels may overlap themselves. Removing any text from the graph screen results in a larger overall graph itself. The graph may be enlarged by enabling the *Do Not Draw Labels on Segments* style, or by removing graph titles. See [Changing Graph Titles](#) for more information. Enlarging the graph will usually alleviate any overlapping data labels.

Dimensions

You must initially determine whether you would like a 2 or 3 dimensional pie chart.

Styles

Do Not Draw Labels on Segments	Do not draw labels on data "pieces".
Omit Lines Between Labels and Segments.	Do not include lines between data labels and the data "piece" it represents.
Labels Same Color as Segments	Make label text the same color as the data "piece" it represents.
Labels as % of Total, Not Magnitude	Make data "pieces" represent the percentage of the total rather than the amount of the total. Data "pieces" will remain the same size. The data labels for the pie chart then become the legend.

Append % Symbol to Pie Labels
<<with Labels as % of Total enabled>>

Append % symbol to the data "pieces" percentage label text.

Pie Sides Same Color as Top
<<3D Pie Chart Only>>

Make the sides of a 3D Pie Chart the same color as the "piece" rather than a dark shade.

Area Chart

Selecting this type creates a graph using color to determine the area of data from the X-axis. Each set of legend data is stacked up to represent the entire amount of data.

Select data by highlighting a legend column and up to 12 data columns. Up to 12 rows of data can be selected for graphing. At least 2 data columns must be selected for an area chart. Negative values cannot be graphed with Area Chart.

If you are including only one row of data in the graph, enable the *Do Not Draw Legend* style to remove the single legend that is displayed.

Removing any text from the graph screen results in a larger overall graph itself. The graph may be enlarged by enabling the *Do Not Draw Labels on Axes* or the *Do Not Draw Legend* styles, or by removing graph titles. See [Changing Graph Titles](#) for more information.

Dimensions

You must initially determine whether you would like a 2 or 3 dimensional area chart.

Styles

Do Not Draw Labels on Axes

Do not draw X-axis or Y-axis labels.

Do Not Draw Legend

Do not draw legend text.

Legend Text Same Color as Symbol

Make legend text the same color as the color it represents.

Draw X Grid

Draw grid lines along the X-axis.

Draw Y Grid

Draw grid lines along the Y-axis.

Amplitude Data is Absolute

Represent each legend data individually, instead of stacking.

In 3D area charts, this will cluster the data depth-wise. In 2D, it will display the areas on top of each other. Sorting the query result data in descending order is recommended, otherwise data could be obscured.

Draw Percentile Area Graph

Display the area graph as a percentile of the whole, rather than by data amount.

Line Chart

Selecting this type creates a graph using color lines representing the data on the Y-axis.

Select data by highlighting a legend column and up to 12 data columns. Up to 12 rows of data can be selected for graphing. At least 2 data columns must be selected for a line chart.

If you are including only one row of data in the graph, enable the *Do Not Draw Legend* style to remove the single legend that is displayed.

Removing any text from the graph screen results in a larger overall graph itself. The graph may be enlarged by enabling the *Do Not Draw Labels on Axes* or the *Do Not Draw Legend* styles, or by removing graph titles. See [Changing Graph Titles](#) for more information.

Styles

Do Not Draw Labels on Axes	Do not draw X-axis or Y-axis labels.
Do Not Draw Legend	Do not draw legend text.
Legend Text Same Color as Symbol	Make legend text the same color as the color it represents.
Draw X Grid	Draw grid lines along the X-axis.
Draw Y Grid	Draw grid lines along the Y-axis.
Draw Symbol at Each Point	Draw a symbol at each point of data.
Join Points with Solid Lines <<with Draw Symbol at Each Point enabled>>	Join symbols with a solid color line.
Draw Vertical Sticks to Points <<with Draw Symbol at Each Point enabled>>	Draw a vertical line from the X-axis to the point of data.

Tape Chart

Selecting this type creates a graph using 3 dimensional color lines representing the data on the Y-axis. Legend data is clustered depth-wise (Z-axis).

Select data by highlighting a legend column and up to 12 data columns. Up to 12 rows of data can be selected for graphing. At least 2 data columns must be selected for a tape chart. Negative values cannot be graphed with Tape Chart.

Removing any text from the graph screen results in a larger overall graph itself. The graph may be enlarged by enabling the *Do Not Draw Labels on Axes* style, or by removing graph titles. See [Changing Graph Titles](#) for more information.

Styles

Do Not Draw Labels on Axes	Do not draw X-axis or Y-axis labels.
Legend Text Same Color as Symbol	Make legend text the same color as the color it represents.
Draw X Grid	Draw grid lines along the X-axis.
Draw Y Grid	Draw grid lines along the Y-axis.

Polar Chart

Selecting this type creates a graph using color lines representing the data on the radial Y-axis based on 360 degrees.

Select data by highlighting a legend column and up to 12 data columns. Up to 12 rows of data can be selected for graphing.

If only one or two data columns are selected for graphing, enable the *Draw Symbols at Points* style in order to view the data on the graph.

If you are including only one row of data in the graph, enable the *Do Not Draw Legend* style to remove the single legend that is displayed.

Removing any text from the graph screen results in a larger overall graph itself. The graph may be enlarged by enabling the *Do Not Draw Labels on*

Axes or the *Do Not Draw Legend* styles, or by removing graph titles. See [Changing Graph Titles](#) for more information.

Styles

Do Not Draw Labels on Axes	Do not draw X-axis or Y-axis labels.
Do Not Draw Legend	Do not draw legend text.
Legend Text Same Color as Symbol	Make legend text the same color as the color it represents.
Draw Angular Grid	Draw angle grid lines.
Draw Radial Grid	Draw radial (circular) grid lines from the center of the graph.
Draw Symbol at Points	Draw a symbol at each point of data.
Join Points with Solid Lines <<with <i>Draw Symbol at Points</i> enabled>>	Join symbols with a solid color line.
Draw Radial Sticks to Points <<with <i>Draw Symbol at Points</i> enabled>>	Draw a line from the center of the graph to the point of data.

High-Low-Close Chart

Selecting this type creates a graph using color lines to representing the high, low, and close data positions. This is useful for stock market evaluations.

Select data by highlighting a data column and 3 rows. The rows in the table must be the HIGH, LOW, and CLOSE data, in that order. Some restructuring of your database may be necessary to graph the high-low-close chart properly.

Removing any text from the graph screen results in a larger overall graph itself. The graph may be enlarged by enabling the *Do Not Draw Labels on Axes* style, or by removing graph titles. See [Changing Graph Titles](#) for more information.

Styles

Do Not Draw Labels on Axes	Do not draw X-axis or Y-axis labels.
Draw X Grid	Draw grid lines along the X-axis.
Draw Y Grid	Draw grid lines along the Y-axis.
Do Not Draw Close Bar	Do not graph the Close data bar.
Do Not Draw Any Bars	Do not graph any data bar, only vertical lines.
Use Thick Lines for HLC Symbol	Use thicker lines for the data bars and vertical lines.

Log Linear Chart

Selecting this type creates a graph using color lines representing the data on the log linear Y-axis.

Select data by highlighting a legend column and up to 12 data columns. Up to 12 rows of data can be selected for graphing. At least 2 data columns must be selected for a log linear chart. Negative and zero values cannot be graphed with Log Linear Chart.

If you are including only one row of data in the graph, enable the *Do Not Draw Legend* style to remove the single legend that is displayed.

Removing any text from the graph screen results in a larger overall graph itself. The graph may be enlarged by enabling the *Do Not Draw Labels on Axes* or the *Do Not Draw Legend* styles, or by removing graph titles. See [Changing Graph Titles](#) for more information.

Styles

Do Not Draw Labels on Axes	Do not draw X-axis or Y-axis labels.
Do Not Draw Legend	Do not draw legend text.
Legend Text Same Color as	Make legend text the same

Symbol	color as the color it represents.
Draw X Grid	Draw grid lines along the X-axis.
Draw Y Grid	Draw grid lines along the Y-axis.
Draw Symbol at Each Point	Draw a symbol at each point of data.
Join Points with Solid Lines <<with Draw Symbol at Each Point enabled>>	Join symbols with a solid color line.
Draw Vertical Sticks to Points <<with Draw Symbol at Each Point enabled>>	Draw a vertical line from the X-axis to the point of data.

Graph Legend

The graph legend is the column used to determine what is to be displayed in the color legend for each of the rows to be graphed. A column that will determine the uniqueness of a particular row (such as a unique ID number or name) is best. A graph legend is not required, but is recommended.

There are two ways to select the graph legend from the result data screen. Within *Define Graph*, select the legend column from the list of columns in the database. Or, from the query result window, click *Set Legend* and click on the column header for the appropriate column.

Selecting a column as a legend column will turn the column red. Selected rows will appear as cyan on gray.

The actual legend text displayed on the graph can be changed later (see [Changing Graph Titles](#) for more information), but the selected legend column values will be used as the default for each row every time the graph is created via the *Create Graph* button.

Graph Data

The columns selected for graph data are used to determine the data that is displayed in the graph. The column to be graphed must be a numerical data type, whether integer, double, real, decimal, or numeric.

There are two ways to select the graph data from the result data screen. Within *Define Graph*, click the *Choose Graph Data* button to bring up a list of all numerical columns. Highlight the columns desired, or click *Select All Columns* to highlight all of them. Or, from the query result window, click *Set Data* and click on the column header for each column to be included.

Selecting a column as a data column will turn the column cyan. Selected rows will appear as green on gray.

The X-axis data labels displayed on the graph can be changed later (see *Changing Graph Titles*), but the column names will be used as the default for each data column every time the graph is created via the *Create Graph* button.

Editing a Graph

Changing Graph Data

Changing Graph Type and Styles

Changing Graph Titles

Changing Graph Fonts

Changing Graph Data

To change the data content of your graph, select *View Data* from the menu. This will bring the query result window back on screen.

You can change the rows selected, the graph legend or data columns, or the graph type from the query result window.

To view the current query information, click the *View Query Status* button. To edit the query to add or remove a column or statistic, or to add or remove a filter or sort, click the *Edit Query* button. Editing the query will reset the selected graph legend and data columns, along with any legend or data titles that were modified.

Click *Create Graph* again to recreate the graph with the new data or attributes. Click *Cancel* to return to the current graph. Any modifications to the graph attributes or to the query itself will remain intact but the current graph being displayed will remain unaffected until *Create Graph* is selected.

See *Viewing Query Results* for more information on the query result window.

Changing Graph Type and Styles

Once a graph is displayed on the screen, you can change the type and styles of the chart by selecting one of the options from the *Chart Options* menu.

The chart type that is currently being used will have a check mark along side that menu option. Select that option to modify the styles of the current chart.

If a different chart type is desired, simply click on one of the other chart types. After selecting the styles for that particular type and clicking *Done*, the graph will then be displayed using the new chart type.

See [Chart Types and Styles](#) for more information on individual chart types and styles.

Changing Graph Titles

There are 3 separate areas of text on the graph display. Once a graph is displayed on the screen, select one of the options from the *Text Labels* menu to modify the graph text.

The graph titles, including the main graph title, the X-axis and the Y-axis title, can be changed by selecting *Graph Titles* from the *Text Labels* menu. The maximum length of a title is 40 characters.

The data labels, which are the X-axis data column descriptions, can be modified by selecting *Data Labels* from the *Text Labels* menu. The data labels text will be reset to the column names involved every time the graph is created. The maximum length of a data label is 20 characters.

The legends, which are the color label descriptions, can be modified by selecting *Legends* from the *Text Labels* menu. The legends text will be reset to the legend column values involved every time the graph is created. The maximum length of a legend is 25 characters.

The size of the graph is affected by surrounding text. If you remove the main graph title, the X-axis title and/or the Y-axis title, the graph itself will become larger in order to fill the screen. To remove any of the titles, hit the delete key while the entire title is highlighted in the Graph Titles window, or backspace over all the text.

Hit *Done* at any of the Text windows to redisplay the graph with the new text. Hit *Cancel* to discard any changes.

Changing Graph Fonts

Once a graph is displayed on the screen, select *Set Fonts* from the *Text Labels* menu to change the fonts for any of the displayed text on the graph.

The previously selected font (or default font of Times Roman) is shown for each category of text. Select *Font...* to change the font type, style, and size for that particular text. Select *Reset Font* to reset to the default.

The date/time stamp (see *User Options*) font can also be modified.

Loading a Graph

To view a previously saved graph, select *Load Graph* from the *File* menu. This allows you to view graphs only, as you cannot modify the graph in any way and this does not load the associated query or result data.

Click on a displayed bitmap file to load that file, or type in the file name and full path in the File Name Box. You can change the current drive by clicking on the new drive in the Drive Box. You can change the current directory by clicking on the new directory in the Directory Box.

The initial directory displayed in the Load Graph window can be changed by selecting *User Options* under the File menu.

Saving a Graph

Once a graph is displayed on the screen, select *Save Graph* from the *File* menu to save the graph to a Windows bitmap (.BMP) file.

Click on a displayed bitmap file, or type in a new file name in the File Name Box. You can change the current drive by clicking on the new drive in the Drive Box. You can change the current directory by clicking on the new directory in the Directory Box.

This file can then be loaded or imported into any program that supports bitmap graphics files, including most Windows-based word processors and graphics programs.

The initial directory displayed in the Save Graph window can be changed by selecting *User Options* under the File menu.

Printing a Graph

Once a graph is displayed on the screen, select *Print Graph* from the *File* menu to print the graph. A Setup window will appear for your selected printer. Modify your printer settings and click *Done* to print the graph. You can also select the number of copies to print as well as portrait or landscape orientation.

A high quality laser printer is recommended for printing graphics output.

Copying a Graph to Clipboard

Once a graph is displayed on the screen, select *Copy to Clipboard* from the *File* menu to copy the graph to the Windows Clipboard.

Once the graph is copied to the Clipboard, it can be pasted into any other Windows application that supports the Windows bitmap graphics format. This is useful to create a graph and then paste it into a document created with a word processor.

Choosing a Font

You can select the font, the font style and font size for any text on your graph. Select *Font...* for the text whose font you wish to change. The Font window will appear with the currently selected font choices highlighted.

Select the font you wish to use. You can select any font installed within Windows. A sample of the currently selected font is displayed in the lower right-hand corner of the window.

Next, select the font style, whether regular, italics, bold, or bold italics. Select the size for the font as well, although it is recommended you keep the fonts of titles and labels close to the default size. Larger font sizes will result in a smaller graph.

Click *OK* to continue or *Cancel* to discard any changes.

Creating a New Query

To create a new query, select *Create New Query* from the *File* menu. A series of windows will be displayed to determine the exact data you would like to view.

First you must select the ODBC data source and database to use. See [ODBC](#) for more information on understanding ODBC and setting up your data sources and databases properly. See [Selecting a Data Source](#) for more information on selecting the data source.

Once you selected a database, you must select the table to use. Highlight the appropriate table to use in the query. Then determine what type of query to issue on the database. From the Tables window, select the [Generate Query](#) button to continue with the database query. Select [Generate Statistics](#) to create a statistical query.

Clicking *Done* from the Build Query or Statistics windows will process the query. The resulting data from the query is displayed in a spreadsheet-like grid. See [Viewing Query Results](#) for selections that can be applied to the resulting data.

Editing a Query

From the query results window, click *Edit Query* to return to the Build Query or Statistics selection windows (depending on which type of query was specified at the Tables window). You can modify the query in any way: by modifying the included columns or statistics, or by modifying filters or sorts.

Clicking *Done* from the Build Query or Statistics windows will re-process the query. The resulting data from the query is displayed in a spreadsheet-like grid. See [Viewing Query Results](#) for selections that can be applied to the resulting data.

Any graph legend or data columns will be reset, along with any selected rows. Any legend and data titles that were modified must be redone, as they will be reset to the new graph legend and data columns selected when the graph is created.

Loading a Query

You can load a previously saved query file (with a .QRY file extension) by selecting *Load Query* under the *File* menu.

Click on a displayed query file to load that query, or type in the file name and full path in the File Name Box. You can change the current drive by clicking on the new drive in the Drive Box. You can change the current directory by clicking on the new directory in the Directory Box.

This loads all query information (database, table and columns/statistics to use, as well as any filters and sorts applied to the data) and basic graph information (graph type and styles used). All user options are also loaded.

The resulting data from the loaded query is displayed in a spreadsheet-like grid. See *Viewing Query Results* for selections that can be applied to the resulting data. If the loaded query does not produce the desired data, select *Edit Query* to modify the query.

See *Saving a Query* for more information on saving a query.

The initial directory displayed in the Load Query window can be changed by selecting *User Options* under the File menu.

Saving a Query

Once the resulting data set is displayed in the grid, you can save your query for future use, whether to view the data or to create the same graph at a later time.

Select *Save Query* under the *File* menu to save the current query to disk as a query file (with a .QRY file extension).

Click on a displayed file (which will prompt you to overwrite that query file) or type in a new file name in the File Name Box. You can change the current drive by clicking on the new drive in the Drive Box. You can change the current directory by clicking on the new directory in the Directory Box.

All query information (database, table and columns/statistics to use, as well as any filters and sorts applied to the data) is saved, along with basic graph information (graph type and styles used). All user options are also saved.

See *Loading a Query* for more information on loading a saved query.

The initial directory displayed in the Save Query window can be changed by selecting *User Options* under the File menu.

Generate Query

Clicking the *Generate Query* button will bring up a list of all the columns in the selected database.

Highlight every column you wish to be included in the query, or click *Select All Columns* to highlight every column in the database. Up to 40 columns can be included in the query.

If you wish to filter (limit) the result data, select *Filters...*, otherwise every row of the selected table will be included in the result.

If you wish to sort the result data, select *Sort By...*, otherwise the resulting data will be in natural order.

Columns with binary data types (such as a photo, sound, or other object) cannot be queried.

Click *Done* when you are finished defining the query. The resulting data from the query is displayed in a spreadsheet-like grid. See *Viewing Query Results* for selections that can be applied to the resulting data.

Generate Statistics

Clicking the *Generate Statistics* button will bring up a window to select the statistics you wish to query of the selected database.

SUM will compute the sum of the selected column by adding all column values. Only numeric and time data types can be summed.

AVERAGE will compute the average value of the column by taking the sum of the column and then will divide that total by the number of column values. Only numeric and time data types can be summed.

MINIMUM and MAXIMUM will compute the minimum or maximum value of the column. Any column can compute the minimum or maximum.

COUNT will compute the total count of column values found. Selecting a COUNT statistic will automatically add a GROUP BY of the selected column.

To generate a statistic, first select the statistical operation you wish to do. Then, select the column you wish to query the statistic upon.

If you wish to group your data by a particular column, select that column in the GROUP BY list. Grouping by a column will join together any generated statistics for all unique values within the selected grouping column. A grouping column will affect all statistics generated in the query. See the Examples section below for more information on grouping by a column.

Click *Add Statistic* to include the statistic in the query. This will place the new statistic in the Current Statistics box.

Hit *Reset All* to reset all current statistics, or, click on an individual statistic or grouping and select *Delete Statistic* to delete it.

Up to 40 statistics and up to 5 GROUP BY columns can be included in the query.

If you wish to filter (limit) the result data, select *Filters...*, otherwise every row of the selected table will be included in the result.

Click *Done* when you are finished defining the statistical query. The resulting data from the query is displayed in a spreadsheet-like grid. See *Viewing Query Results* for selections that can be applied to the resulting data.

In order to speed up statistical queries, it is quite helpful to have any GROUP

BY columns be indexed. See [Utilizing an Index in ODBC](#) for more information.

If you are calculating multiple statistics on a single column or row, Pie Chart is a recommended graph type.

Example 1:

To generate the sum of sales for all months, add the following statistics:

```
SUM( JAN_SALES )
SUM( FEB_SALES )
SUM( MAR_SALES )
...
SUM( DEC_SALES )
```

Example 2

To generate maximum, minimum and average of January sales, add the following statistics:

```
MAX( JAN_SALES )
MIN( JAN_SALES )
AVG( JAN_SALES )
```

Example 3

To generate the number of January sales and the total of those sales, both to be broken down by [grouped by] individual salesperson, add the following statistics:

```
COUNT( JAN_SALES ) GROUP BY SALES_PERSON
SUM( JAN_SALES )
```

The SUM statistic does not need to be specified with a GROUP BY column, as the GROUP BY in the initial statistic will affect any other statistics generated. In the above example, you could add any number of additional statistics (such as MAXIMUM, MINIMUM, or AVERAGE) and those statistics would also be grouped by the originally specified GROUP BY column.

Filtering the Query

After selecting the *Filters...* button, the Filter window will appear. Use this to shrink your entire result data set by applying a filter to the data.

First, select the column you wish to apply the filter to. Once a column is selected, that column's data type will appear in blue.

Then select the operation of the filter. Every row that passes the comparison will be accepted in the query. You can select:

Operator:	Description:
Equals	Column value is equal to comparison value. <i>If selected column is a text data type, Equals becomes the LIKE operation.</i>
Not Equals	Column value is not equal to comparison value. <i>If selected column is a text data type, Not Equals becomes the NOT LIKE operation.</i>
Greater Than	Column value is greater than comparison value.
Greater Than or Equal To	Column value is greater than or equal to comparison value.
Less Than	Column value is less than comparison value.
Less Than or Equal To	Column value is less than or equal to comparison value.
Is Between	Column value is in between or equal to two comparison values. <i>The two comparison values must be separated with the</i>

AND keyword, such as "value1 AND value2".

Is In

Column value is equal to one of the comparison values.

The comparison values must be separated by a comma, such as "value1, value2, value3".

Is Not Null (Exists)

Column value is not equal to null value.

No comparison value is required.

Is Null (Fails)

Column value is equal to null value.

No comparison value is required.

See the examples below for usage on particular operations.

Then enter the comparison value to apply towards the column data. You can also enter another column name within the same database to compare the originally selected column to. If the filter operation is *Is Not Null (Exists)* or *Is Null (Fails)*, no filter comparison value is needed. If the filter operation is *Is Between* or *Is In*, the comparison values must be separated with AND or a comma respectively. All comparison values must match the data type of the specified column, otherwise an error will occur once the *Done* button is clicked.

Date and **Time** comparisons must be offset by single quotes.

Text (text or memo fields) comparisons must also be offset by single quotes. You can also use the wildcard characters of '%' (any characters of any number) or '_' (any character in one space) in comparisons towards text columns. Certain databases have problems in searching text values with the Equal (LIKE) operator. If an error occurs stating that no rows exist with the filter, try appending the '%' wildcard character to the end of the comparison string.

Select *Browse Data* to query the database for up to 50 sample values of the specified column. Click on a value in the list of browsed data to select that

value for the filter operation.

Click *Add Filter* to implement the selected filter. This will add it to the Current Filters box.

In adding more than one filter, you must select how to connect the new filter with the previous filter. Select AND to apply both filters (so that a row must pass both filters to be displayed), or select OR to apply either filter (so that a row that fails one filter but passes another will be displayed). Use AND NOT or OR NOT to use the new filter in a negative manner.

Select *Reset All Filters* to clear the Current Filters box, or select an individual filter in the Current Filters box and select *Delete Selected Filter* to remove it.

Select *Done* when finished to return to the Build Query or Statistic window. Click *Cancel* to discard any changes.

The data, when displayed, will be only the rows which pass through all the filters selected, or will be all rows in the table if no filters exist. Any number of filters can be applied to the query.

In order to speed up filtered queries, it is quite helpful to have any columns that are specified to be indexed. See [Utilizing an Index in ODBC](#) for more information.

Example 1:

A filter on an address database, in order to get all rows of people in some of the western states, could be the following:

```
STATE = 'CA'  
OR STATE = 'WA'  
OR STATE = 'OR'
```

or possibly,

```
STATE IN 'CA', 'WA', 'OR'
```

Example 2:

To retrieve all clients with overdue accounts:

```
OVERDUE_BAL IS NOT NULL  
(if those without overdue accounts have a null character)
```

or possibly,

```
CURR_BAL > 0.00
```

Example 3:

To retrieve all transactions within a certain range of ID numbers that were debits:

```
TRANS_ID BETWEEN 1000 AND 4000  
AND SUB_TOTAL < 0.00
```

Example 4:

To retrieve all clients with a last name starting with M, of any text length:

```
LASTNAME = 'M%'
```

Sorting the Query

After selecting *Sort...*, the Sort window will appear. Use this to sort the resulting data from the query in a particular way.

Select a column from the list and select an *Ascending* (in "normal" order) or *Descending* (in "reverse" order) sort. Select *Add Sort* to add the sort to the query. It will then be displayed in the Current Sorts box.

Select *Reset All* to clear the Current Sorts box, or select an individual sort in the Current Sorts box and select *Delete* to remove it.

Click *Done* when finished to return to the Build Query or Statistics window. Click *Cancel* to discard any changes.

The data, when displayed, will be sorted according to the columns selected, or will be in natural order if no sorts exist. Any number of sorts can be applied to the query.

The first sort listed will be the first sort used on the data. For any values that are equal, the second sort will be used on those particular rows. For any values that are equal on the second sort, the third sort will be used on those particular rows, etc...

In order to speed up sorted queries, it is quite helpful to have any columns that are specified to be indexed. See [Utilizing an Index in ODBC](#) for more information.

Example 1:

To sort an address list by state, you could enter the following sorts:

STATE
CITY
ZIPCODE

The data would be initially sorted on the STATE column values. For any rows with equal STATE column values, the CITY column values would then be used to sort. For any rows with equal STATE and CITY column values, the ZIPCODE column values would be used to further sort the data.

Example 2:

To sort an address list by person:

LASTNAME
FIRSTNAME

This would sort the data into a telephone directory type listing, sorted completely by name. Rows with equal LASTNAME column values would then be sorted by the FIRSTNAME column values.

Viewing Query Results

Once you have selected the columns or statistics for your query and have added any filters or sorts, clicking *Done* will process the query and display the resulting data in a spreadsheet-like grid.

Click the horizontal scrollbar to view other columns. Click the vertical scrollbar to view other rows. You can increase or decrease the width of a grid column by adjusting the width of the column heading.

Once you view the query results, you can further manipulate the query to focus on certain portions of the data, copy portions of the resulting data into the clipboard, continue on with the graph creation process, or cancel the query operation.

To view the current query information, click the *View Query Status* button. To edit the query to add or remove a column or statistic, or to add or remove a filter or sort, click the *Edit Query* button.

To do a new query on the same database, click the *New Table* button. To do a new query on an entirely new database or new ODBC Data Source, you must select *Create New Query* from the File menu.

To save the query for future use (along with any selected graph types and styles, as well as all user options), select *Save Query* from the File menu.

To copy all or selected rows of the result data to the clipboard for use in another Windows application, click the *Copy to Clipboard* button.

To continue on with the graph creation process, you must define the graph data. Click *Define Graph* to define the different areas of the graph. Or, use the *Select Legend* and *Select Data* buttons to quickly select the columns to be shown in the graph. Then select the rows to be graphed by clicking on the row number. Click *Create Graph* to create the graph from the specified data. See *Graphs* for more information on creating and manipulating graphs from the query result data.

Click *Cancel* to cancel the query result window. Select the *View Data* menu option to redisplay the query result window.

The number of decimal places in numerical data shown in the grid can be controlled in the *User Options* section. The default is 2 decimal places.

Copying Query Result Data to Clipboard

Click the *Copy to Clipboard* button on the query result window to copy all or selected rows of the result data to the Windows Clipboard.

Choose the character used to separate the column data, whether comma or tab. Also select whether the column names should be included in the clipboard as the first row.

Click the *Copy All Rows* or the *Copy Selected Rows* button to copy all rows in the grid or just highlighted (selected) rows.

This allows you to be able to paste the selected data into other Windows applications such as word-processors or spreadsheets.

Selecting a Table

A window will appear prompting you for the table to use in your query. Highlight the table you wish to use.

For flat-file databases, all table files in the selected directory will be listed. If no tables appear, no table files exist in the specified directory. See *Database Types* for more information on ODBC database types.

Click the *Generate Query* button to view the actual data contained in the database. Click the *Generate Statistics* button to generate statistics on the data, such as the sum, average, maximum or minimum value for a particular column.

Click *Cancel* to cancel the query creation process and to return to the previous query, if any.

ODBC

ODBC Installation and Setup

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ODBC Overview

Understanding the Open DataBase Connectivity (ODBC) standard is essential in allowing Power Graph to connect to and query your database.

ODBC allows Windows applications to connect to, query or modify any database that has ODBC drivers. The Windows application can treat and query all databases in the same way, and the ODBC driver for the database translates all incoming and outgoing messages to a set standard, rather than the application having to account for all the different database types. In essence, ODBC provides a standard "buffer" between the application and the databases, allowing the application to "speak" to any database using a set language.

This allows Power Graph to connect to any database which has a "level 1" or higher ODBC driver ("level 1" being a level of ODBC conformity for the driver).

A **driver** is the base level in ODBC. It provides the actual translation between application and database.

The **data source** provides the redirection from the driver to the actual database files on your hard drive.

See [Setting Up Data Sources](#) for information on setting up new data sources.

Setting Up Data Sources

In order to modify any aspect of ODBC in Windows, enter the *Control Panel* from the *Main* window of the Program Manager. Click on the *ODBC* icon to enter the ODBC Administrator program.

In order to add a new database **driver**, click the *Drivers...* button from the ODBC Administrator window, then the *Add...* button. You will be prompted to insert the installation disk with the ODBC driver. If you have installed the ODBC base package, you were prompted to install the available drivers during ODBC installation. If you are installing an ODBC driver for a mainframe/server databases, you must follow the instructions given with the ODBC driver in order to access your data properly. A gateway might be necessary to link to your database. See the specific instructions provided for more information.

Most PC and mainframe databases have high-performance ODBC drivers available from a variety of sources. Call technical support for a complete listing of sources for available ODBC drivers and a listing of other available ODBC applications.

To create a new **data source**, click *Add...* from the ODBC Administrator window. You will be prompted to select the driver you wish to use. Select the one appropriate for your database type and click *OK*. The driver then takes over and prompts you for more information that is applicable to your database.

To create a 'generic' data source, click the *Use Current Directory* button, if available. If not, the data source must point at a specific database file or directory.

To modify a data source, select the appropriate data source and click the *Setup...* button. Change any information, such as the database file or directory to point at or index files to use, and click the *OK* button to save any changes.

See [Database Types](#) for examples of existing database types and specific information on how to set up a data source for that database. If your database is not covered, please refer to the documentation given with your ODBC driver.

Each time you start a new query in Power Graph, you will be prompted for the data source (hence the database) to use in the query. See [Selecting a Data Source](#) for more information.

Database Types

If you are accessing a mainframe/server database, see the instructions provided with the ODBC driver on setting up data sources.

Two types of PC databases exist:

SQL Databases

SQL Databases are databases that are self-contained within a file or set of files. These databases contain all tables, structure information, indexes, and data within these files. An example of this is the Microsoft Access database.

In setting up a data source for a SQL database, you specify the exact database file to use.

If the driver allows you to *Select a Database* (with a button), use that to select the database to use, including full path and filename. The Data Source Name should be any text that accurately describes the data source and database, such as "Accounting" or "Inventory".

If the driver doesn't allow database specification, the Data Source Name must contain the full path and filename of the database to use.

The Data Source Name will be the data source text you can select in Power Graph each time you wish to query or graph this specific database.

Fill out any other driver options and click *OK* to save. Entering a Description is optional and never used by Power Graph or ODBC.

If the data source does not point at a specific database file, Power Graph will prompt you to select a database file to connect to. See [Connecting to a Database via ODBC](#) for more information.

With SQL databases, all indexes are internal, within the database file itself. All indexes must be set beforehand by using the database application. The ODBC driver will automatically use any indexes that exist on specified columns. See [Utilizing an Index in ODBC](#) for more information on indexes within SQL databases.

Flat-File Databases

Flat-File Databases are databases that are not self-contained within a single database file, but are rather a set or series of individual table files in a specific directory. Every table and index is a separate file, and the entire

'database' consists of several of these files in an application's directory. Examples include dBASE, FoxPro, Paradox, and Btrieve databases. Btrieve database files go a step further by not including structure information, so separate FILE.DDF and FIELD.DDF files must be maintained in order to give ODBC the necessary information.

In setting up a data source for a flat-file database, you specify the directory to use for all database access. Every separate table file in the directory will be brought up in the Tables window, where you can then select the exact file to use. When setting up a data source, you can specify to *Use Current Directory* or to *Select Directory*.

If *Use Current Directory* is selected, the data source becomes a 'generic' data source, one that does not point to any specific database application directory. If a 'generic' data source is used, or any data source which does not point at a specific database directory, Power Graph will prompt you to select a table file from within that directory. All table files in that directory will then be available for selection in the Table window. See [Connecting to a Database via ODBC](#) for more information.

If you deselect *Use Current Directory*, the driver allows you to select the *Select Directory* button. Use this to select the exact database directory to use. Power Graph will no longer prompt you to select a database file, but rather will pull all the table files in the specified directory into the Table window for selection.

The Data Source Name should be any text that accurately describes the data source and database application, such as "Accounting" or "Inventory". The Data Source Name will be the data source text you select in Power Graph each time you wish to query or graph this specific database application.

Many drivers will have you select the version of the database you are using. Fill out any other driver options and click *OK* to save. Entering a Description is optional and never used by Power Graph or ODBC.

With many flat-file databases, all indexes are external files that must be specified beforehand to the ODBC driver. If the data source window contains a *Select Index...* button, you need to select all indexes related to each individual table file. This can be a lengthy process, but must only be done once, unless the index filenames change in the future. If the data source window does not contain any way to specify index files, the driver most likely can recognize the index files due to a set format, such as the Paradox driver. See [Utilizing an Index in ODBC](#) for more information on specifying indexes for flat-file databases.

Utilizing an Index in ODBC

For queries that utilize filters, sorts, or statistics on a specified column, an index should be used on the column to considerably speed up the query. An index should always be created in the original database application. Refer to your database's documentation for information on indexing columns.

For SQL databases, all index information is contained in the core database files. The ODBC driver will use any existing indexes automatically for all queries to the indexed columns.

For flat-file databases, all index information is contained in external files that need to be specified, so the ODBC driver knows which files to utilize. When setting up the data source for the database, select the *Select Indexes...* button after specifying the database application directory.

The driver will display a screen of all table files in the specified data source directory, and a list of all valid index files in the same directory. Highlight a specific table file, then highlight all associated index files for that table file. Select another table file or click *Done* to save the selections.

With many flat-file databases, the driver will create an external file in the directory called **<TABLENAME>.INF**, which allows the driver to instantly see all the index associations for the table if a query includes any filters or sorts on the indexed columns.

dBASE III .INF files look like:

```
[dBase]
NDX1=INDEXNAME.EXT
NDX2=INDEXNAME.EXT
etc...
```

dBASE IV and FoxPro .INF files look like:

```
[dBase]
MDX1=INDEXNAME.EXT
MDX2=INDEXNAME.EXT
etc...
```

Certain flat-file databases can recognize index files automatically, such as Paradox. These drivers do not allow index selection from the data source screen.

See [Database Types](#) for more information on the two different types of ODBC databases.

Connecting to a Database via ODBC

When a data source is selected that does not specify a specific database file or directory to use, Power Graph will prompt you to select a database file. See [Selecting a Data Source](#) for more information.

Click the database file to select that database. You can change the current drive by clicking on the new drive in the Drive Box. You can change the current directory by clicking on the new directory in the Directory Box. You can also type in the file name and full path of the database file in the File Name box. All databases in the current working drive and directory are automatically displayed. To change the type of database format displayed in the file window, select your database type from the List Files... combo box. A database file type of "*Unknown Database*" will bring up all files in the directory (*.*).

If the database type is a SQL database, the file selected is the actual database and is directly connected to. You will then continue in the query building process.

If the database type is a flat-file database, the database file selected is actually a table, and Power Graph uses the selected directory for all database activities. All table files are then available for selection in the Table window, with the table file that was selected as the current highlighted choice. Select the table you wish to use (or keep the current selection) and continue in the query building process.

With Btrieve databases, you must select a database directory that contains the FILE.DDF information file.

See [Database Types](#) for more information on the two different types of ODBC databases.

If an error occurs stating that the database could not be connected, it could be due to the database not being truly compatible with the data source or driver. Check the database type and data source settings before trying again. This could occur when trying to connect to FoxPro .DBF files with a dBASE data source, or vice versa.

The initial directory displayed in the Select Database window can be changed by selecting [User Options](#) under the File menu.

Selecting a Data Source

When you start a new query by selecting the *Create New Query* menu option, you are initially prompted to select the ODBC data source you wish to use. Select the data source of the database you wish to use in the query.

If the data source points to the exact database file or directory to use, the database is connected to, and you will continue along the query creation process.

If the selected data source is a 'generic' data source, meaning it does not point to any specific database file or directory, Power Graph will prompt you to select the appropriate database file from the hard drive. See [Connecting to a Database via ODBC](#) for more information.

See [Setting Up Data Sources](#) for more information on setting up data sources in ODBC.

