

10

Pivot Reports

Pivot reports provide a rapid way to summarize your data, enabling you to cut through the detail to reach a meaningful interpretation of your query results. Data summary is a simple drag-and-drop operation. And with the flexible pivoting feature you can easily reorient the summarized data to allow easy comparison of multiple dimensions of data. This chapter explains how to

- create Pivot reports
- pivot data in the report
- group items
- drill-down into the data
- manage data in the report
- perform calculations on your Pivot data

Analyzing Data with Pivot Reports

When you first look in the Results of your Query, the data is not yet in a usable form. The Pivot report is designed to extract meaningful information from the Results section.

Here is how Pivot works: By dragging data labels from the Request line into the Outliner, you select which dimensions to use in summarizing the underlying data in the Result section. In comparison with the Results section, a Pivot report almost always uses fewer dimensions to categorize the data. With fewer dimensions, BrioQuery can group and total the underlying values according to the selected dimensions. This process is a form of aggregation, which is described in more detail in Chapter 3: *Turning Data into Information*.

An Example of How Pivot Works

Suppose Paul Ryan, a senior vice president of Personal Computer Warehouse, designs a query to gather all the sales for a two year period, including information about the number of units, the amount of the sale, the store purchasing, the buyer involved and so forth. The data from this query initially would be quite unmanageable, returning more than nine-hundred rows of data from the database. But with the Pivot report, the data can be quickly sifted and interpreted.

Year Number	Quarter	Item Type	Amount	Total
1994	Q1	CD-ROM Drive	42,791.78	242,857.4
1994	Q1	Hard Drive	34,714.3	200,837.6
1994	Q1	Key Board	25,960.19	106,679.8
1994	Q1	Key Pad	1,888.51	12,275.
1994	Q1	Modem	36,056.02	187,121.1
1994	Q1	Mouse	15,879.18	72,225.
1994	Q1	Speakers	2,369.5	41,466.2
1994	Q1	Total	159,859.48	863,463.
1995	Q1	CD-ROM Drive	68,776.04	373,879.7
1995	Q1	Hard Drive	40,693.9	271,466.
1995	Q1	Key Board	29,380.08	135,026.79
1995	Q1	Key Pad	4,249.14	16,865.05
1995	Q1	Modem	46,551.03	203,056.02
1995	Q1	Mouse	15,078.31	80,837.07
1995	Q1	Speakers	14,217.01	90,633.44
1995	Q1	Total	218,956.41	1,173,785.78
Total			378,615.89	2,037,248.86

Figure 10-1 Pivot Reports summarize and consolidate data from the Results section.

Using the Pivot report, it is easy to compare the amount of sales by product type for each of the years 1994 and 1995.

Mr. Ryan drags the data labels “Year Number,” “Item Type,” and “Amount” to the Outliner panels (see Figure 10-1).

Automatically, BrioQuery displays the tallied sales amount for each Product Type by the year purchased.

When Mr. Ryan adds “Quarter” into the Outliner, Pivot automatically re-categorizes the data and provides new sums showing the sales in each year by Quarter.

Pivot Report Terminology

The Pivot report is composed of three different components: data labels, data values and data dimensions.

- Data values are the numeric values that are broken up in the body of the pivot report.

- Data labels are the column and row headings on the top and sides of the pivot report and define the categories by which the numeric values are organized.
- A Dimension is a full row or column of labels and corresponds to an item on the Request line. In Figure 10-2, for example, Year Number is a dimension of data that includes the labels, 1994 and 1995.

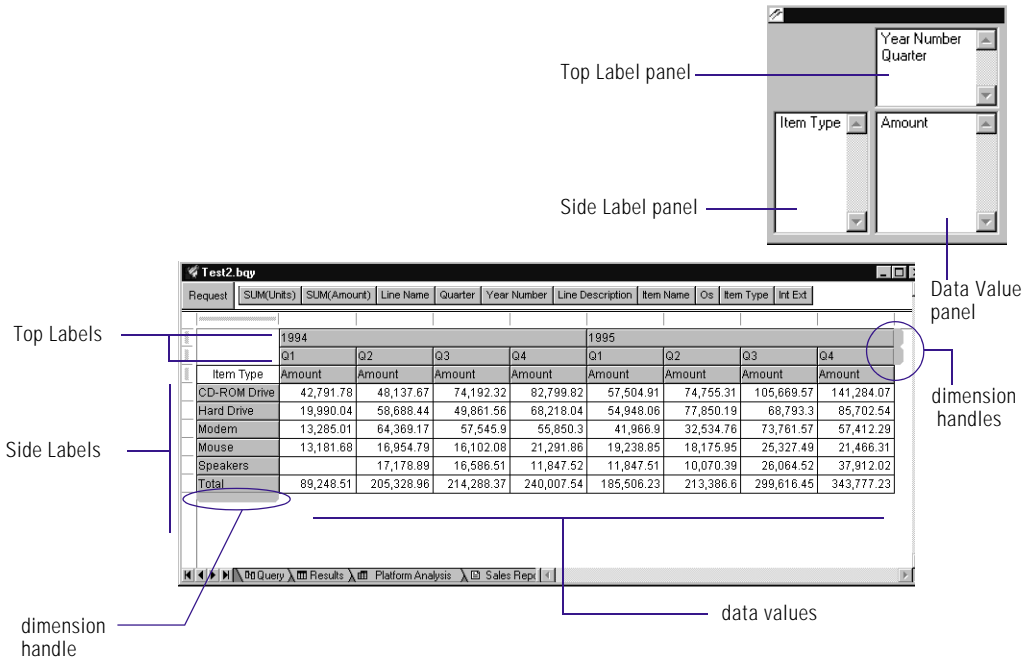


Figure 10-2 Pivot report and Outliner.

Creating a Pivot Report

In BrioQuery, you build a Pivot report by dragging one or more items from the Request line to various panels in the Outliner window. The top and side panels correspond to the top and side labels of the report. The bottom right panel holds the report values.

To build a Pivot report

- 1 Click the Pivot1 section tab or Choose *Insert > New Pivot* to create a new Pivot report section.
- 2 Click Outliner on the Standard toolbar if the Outliner is not already available.
- 3 First drag data values (such as units or amount) from the Request line to the bottom right panel of the Outliner.
- 4 Next, drag data labels into the other panels of the Outliner. (The maximum number of items you can use is 10 distributed between the top and side label panels).

Understanding Nested Labels

As your work with Pivot reports, you will quickly discover that labels from one dimension are frequently nested within labels from another dimension. Nesting means that one set of labels appears as a sub-division within each of the labels at a higher level of data.

Try placing more than one data label in an Outliner panel. The Pivot report will display the second set of labels inside *each* of the labels of the first data items. The second labels are nested within the first. This means they represent sub-divisions within another “higher level” category.

For example, Figure 10-2 shows Year and Quarter as data items in the top panel of the Outliner. The Quarter labels (Q1, Q2, Q3 and Q4) are nested within *each* year label (1994, 1995).

Techniques for Managing Your Data

Once you have the desired data in your Pivot report, a variety of techniques will enable you to more effectively analyze the data. These techniques change your perspective on the data without changing the actual data itself.

These techniques include

- pivoting the data
- changing the hierarchical level of the labels
- focusing on or hiding various parts of the data
- changing label names
- charting the pivot report

Using the Pivot Feature

You can reorient, or pivot, your reports on-the-fly by interchanging the top and side dimensions of the report. This Pivot feature is frequently helpful for juxtaposing data in one dimension with data from other dimensions. By pivoting the data from the top to the side, different relationships among the data become evident.

To pivot your report

- 1 On the report itself, drag the dimension handle to the new location, or
- 2 You can drag a data from one label panel of the Outliner to the other label panel.

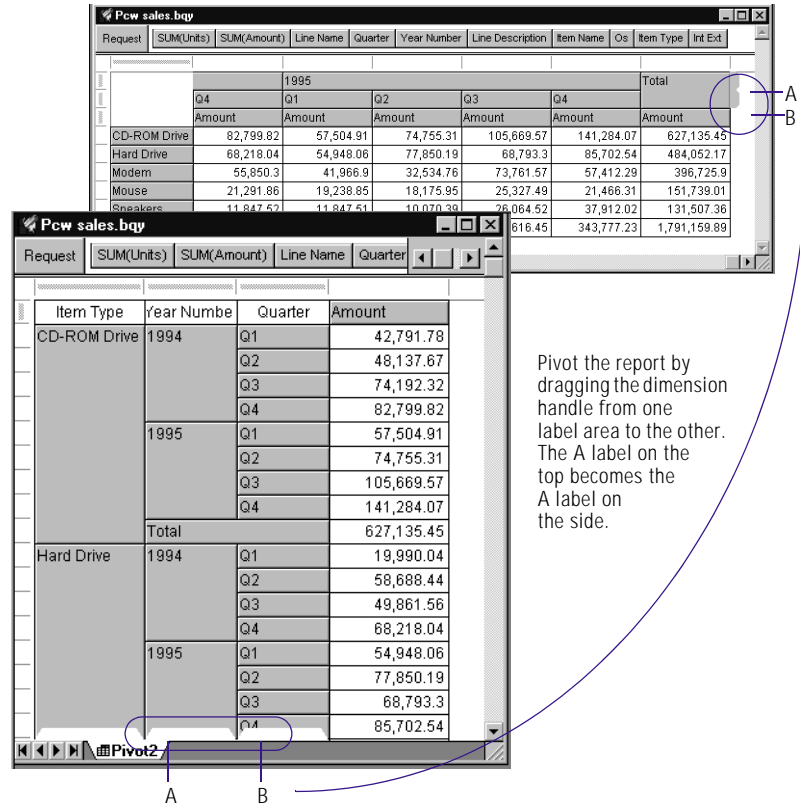


Figure 10-3 Re-orient your report by interchanging the top and side labels.

BrioQuery automatically re-organizes the data values and adjusts the labels.

Changing the Nesting of Labels

As previously discussed, labels have a nested relationship when more than one data item is placed in a single panel of the Outliner (“Understanding Nested Labels” on page 10-5).

But it is possible to reverse the nesting relationship. If labels for Quarter are nested within each labels for year, you can reverse the hierarchy. Each year (1994, 1995) can be displayed as a subset of each Quarter (Figure 10-4). In this case, Q1 values are broken down by the labels 1994 and 1995. The data stays the same, but the emphasis is different.

To change the nested level of labels

- 1 With more than one data item in an Outliner panel, click on a data item in the Outliner.
- 2 Drag that item to the other side of the second data item in the same panel of the Outliner.
- 3 The labels in those dimensions will switch positions.

	Q1		Q2		Q3		Q4	
	1994	1995	1994	1995	1994	1995	1994	1995
Item Type	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount
CD-ROM Dri	42,791.78	68,778.04	51,496.93	71,002.93	74,215.31	103,912.82	74,353.44	130,185.94
Hard Drive	34,714.3	40,692.8	44,454.55	80,159.44	50,053.31	77,268.93	71,615.67	73,347.53
Key Board	25,960.19	29,390.08	22,370.7	37,264.57	32,704.7	35,144.31	25,644.3	33,226.79
Key Pad	1,888.51	4,249.14	2,832.76	629.5	3,934.39	6,137.64	3,619.64	7,868.77
Modem	36,056.02	46,551.03	44,767.91	29,175.38	60,100.03	71,893.07	46,197.17	55,637.54
Mouse	15,879.18	15,078.31	15,430.54	19,761.95	18,185.33	24,318.81	24,730.15	21,678.2
Speakers	2,369.5	14,217.01	10,862.76	7,700.89	18,363.64	29,026.4	10,070.39	39,689.14

The positions of Year and Quarter have been changed in the top label area of the Outliner.

Figure 10-4 Changing the nested relationship of labels.

To change the order of labels within a dimension

- ▶ Click a label name and drag it to another position within the current dimension.

Selecting Pivot Elements and Using the Speed Menus

For a variety of tasks, such as hiding data or changing colors, you need to select Pivot rows, columns or dimensions.

To select a Pivot row or column



- ▶ Alt-click a label for Windows.



- ▶ Option-click a label for Macintosh.

UNIX

- ▶ Ctrl-alt-click a label for Motif.

Note Some PCX servers, such as Hummingbird, differentiate the right-alt and left-alt keys.

To select one or more contiguous items



- ▶ Shift-click for Windows, Motif, and Macintosh.

UNIX



To select non-contiguous items



UNIX

- ▶ Ctrl-click for Windows and Motif.



- ▶ Command-click for Macintosh

To use Speed Menus



UNIX

- ▶ Right-click for Windows and Motif.




- ▶ Ctrl-click for Macintosh.

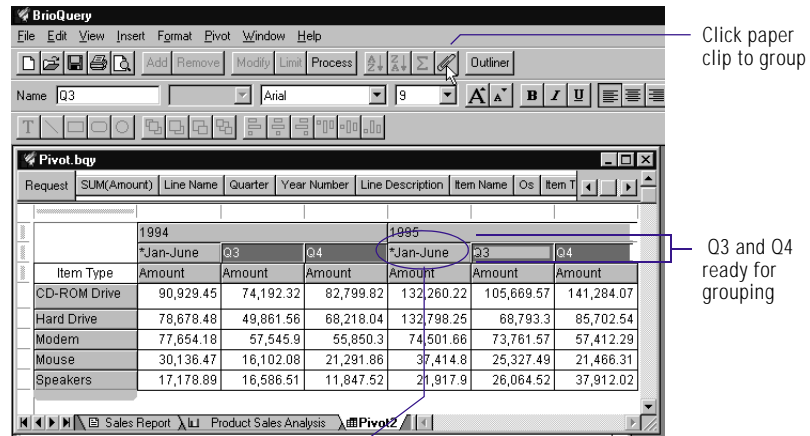
Grouping Labels Together

You can consolidate data from two or more rows or columns into a single item in the report with a single label. Grouping adds the data together, and replaces the original rows or columns with a single row or column displaying the consolidated figures.

For example, you can group Q1 and Q2 into a single column.

To group labels

- 1 Click the names of the labels you want to group.
- 2 Click the Paper Clip  button on the Standard toolbar.



Click paper clip to group

Q3 and Q4 ready for grouping

Q1 and Q2 grouped into single item.
Asterisk indicates a grouping

Request	SUM(Amount)	Line Name	Quarter	Year Number	Line Description	Item Name	Os	Item T
				1994				
		*Jan-June	Q3	Q4	1995	*Jan-June	Q3	Q4
Item Type	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount
CD-ROM Drive	90,929.45	74,192.32	82,799.82	132,260.22	105,669.57	141,284.07		
Hard Drive	78,678.48	49,861.56	68,218.04	132,798.25	68,793.3	95,702.54		
Modem	77,654.18	57,545.9	55,850.3	74,501.66	73,761.57	57,412.29		
Mouse	30,136.47	16,102.08	21,291.86	37,414.8	25,327.49	21,466.31		
Speakers	17,178.89	16,586.51	11,847.52	21,917.9	26,064.52	37,912.02		

Figure 10-5 Grouped labels in a Pivot report.

- 3 BrioQuery consolidates the values for selected rows or columns into a single row or column.

Note By default, the label of the new column will be the label of the first item selected, marked with an asterisk (*) to indicate that it is a group of more than one item. To rename this row or column, see “Renaming Labels” .

To ungroup labels

- ▶ Click on the grouped label, and click the Paper Clip button on the Standard toolbar.

BrioQuery restores the items to their original columns or rows.

Renaming Labels

For a variety of reasons, you might want to rename the labels. After grouping items, for example, you may want to use a more relevant label for the combined data.

To change the label of a group

- 1 Choose *View > Toolbars > Format*.
- 2 Click a label name. The label is highlighted and the current name appears in the Format toolbar.
- 3 Type a new name in the Name field on the Format toolbar and press the Return key on your keyboard.



Figure 10-6 Rename grouped items with a descriptive name.

You can also double-click the label name and rename it in the Set Label Item dialog box.

BrioQuery displays the new name for the group.

Adding Corner Labels

You can add corner labels to your Pivot report which mirror the names of the data labels in the Outliner. You can also select the position of value labels in your report.

Corner labels mark dimensions of data according to items in the Outliner.

Request	Buyer	Store Type	City	State	Item Name	Year Number	Int Ext	Item Type	Os	De
		Store Type	Computer	Discount	Electronics					
	Quarter	Item Type	Amount	Amount	Amount					
Q1		CD-ROM Dri	\$53,213.53	\$40,410.27	\$17,946.02					
		Hard Drive	\$35,412.41							
		Key Board	\$26,726.55							
		Key Pad	\$1,259.00							
		Modem	\$50,882.91							
		Mouse	\$11,888.03							
		Speakers	\$10,070.38							
Q2		CD-ROM Dri	\$56,787.43							
		Hard Drive	\$47,689.78							

Value labels can be placed on the top or side of the report

The screenshot shows a Pivot report with an Outliner. The report has columns for Store Type, Quarter, Item Type, and Amount. The Outliner shows a list of items with their respective amounts. Annotations indicate that corner labels mark dimensions of data and that value labels can be placed on the top or side of the report.

To add a corner label

- ▶ Choose *Format > Corner Labels* and select an option.

To change the position of Value labels

- ▶ Choose *Format > Data Labels* and select an option.

Hiding or Focusing on Data

You can selectively restrict the data displayed in Pivot reports and Charts using the Focus and Hide features. Hidden data items are removed from the report but not the outliner. You can restore the hidden labels at any time.

Focus and Hide are useful when you are most interested in a sub-set of the data and want to eliminate distracting detail.

To focus on (or hide) report data

- 1 Select one or more label.
- 2 Choose *Pivot > Hide Item* (or *Focus on Item*).

BrioQuery updates the workspace to hide or focus the data. A drillbit appears in the Outliner next to the item in which data has been hidden.

The top screenshot shows a Pivot report with the following data:

Item Type	1994				1995			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
CD-ROM Drive	42,791.78	48,137.87	74,192.32	82,799.82	57,504.91	74,755.31	105,669.57	141,284.07
Hard Drive	19,990.04	58,688.44	88,861.56	68,218.04	54,948.06	77,850.19	68,793.3	85,702.54
Modem	13,285.01	64,369.17	57,545.9	55,850.3	41,966.9	32,534.76	73,761.57	57,412.29
Mouse	13,181.68	16,984.79	16,102.08	21,291.86	19,238.85	18,175.95	25,327.49	21,466.31
Speakers		17,178.89	16,586.51	11,847.52	11,847.51	10,070.39	26,064.52	37,912.02

The bottom screenshot shows the report after the Focus command is used, displaying only the 1995 data:

Item Type	1995			
	Q1	Q2	Q3	Q4
CD-ROM Drive	57,504.91	74,755.31	105,669.57	141,284.07
Hard Drive	54,948.06	77,850.19	68,793.3	85,702.54
Modem	41,966.9	32,534.76	73,761.57	57,412.29
Mouse	19,238.85	18,175.95	25,327.49	21,466.31
Speakers	11,847.51	10,070.39	26,064.52	37,912.02

Use the Focus command to display only specific label items in your Pivot reports. In this example, the Pivot report focuses on 1995.

Figure 10-7 Using the Focus command in a Pivot report

- 3 To restore the data, choose *Pivot > Show Hidden Items* (or *Show All Items*). For more information, see “To show hidden data” on page 10-16.

Performing Drill-Down Analysis

Drill-down is a powerful feature that instantly provides detailed analysis for selected data items. When you spot a specific item that interests you, such as a top-selling product, you can drill-down into that item to find out more about it. If you want highly detailed information, you can progressively drill-down into your report to reveal the granular data.

For example, you can determine if sales are higher in different geographic areas, and drill-down further to discover whether a particular store, or even an individual representative, makes significant contributions to total sales.

Since the drill-down feature retrieves data from the Results section, you can dig into your data as deeply as your original query permits.

To drill down into a Pivot report

- 1 Select one or more labels for analysis.
- 2 Choose *Pivot > Drilldown Into* and select a dimension of data to view, or
- 3 Display the speed menu.

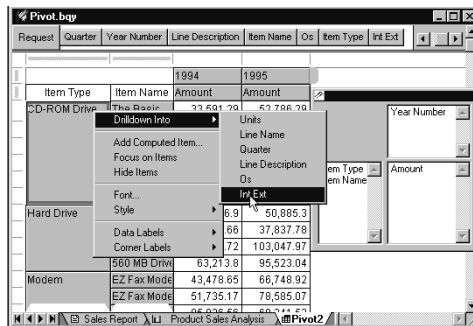


Figure 10-8 A speed menu displaying the Drilldown submenu.

The Drilldown submenu displays all the Request line items that are not yet in the Outliner.

- 4 Choose a drill-down item to break down the items you selected in Step 1.

BrioQuery re-displays the report, breaking out additional data according to the item selected for drill-down. In the Outliner, an item selected for drill-down is identified with a drillbit icon.

Note If no options are available in the Drilldown submenu, all Request line items are already displayed in your Pivot report.

To show hidden data

- 1 Choose *Pivot > Show All Items* to restore all data hidden in the report as a whole, or
- 2 Select a dimension for which you want to restore the full set of labels.
- 3 Choose *Pivot > Show Hidden Items* to restore all hidden data in that dimension.

Sorting in Pivot

Frequently, you may need to sort the values in given dimensions of your report. Sorting is discussed in greater detail in Chapter 9: *Sorting*.

To sort in Pivot reports

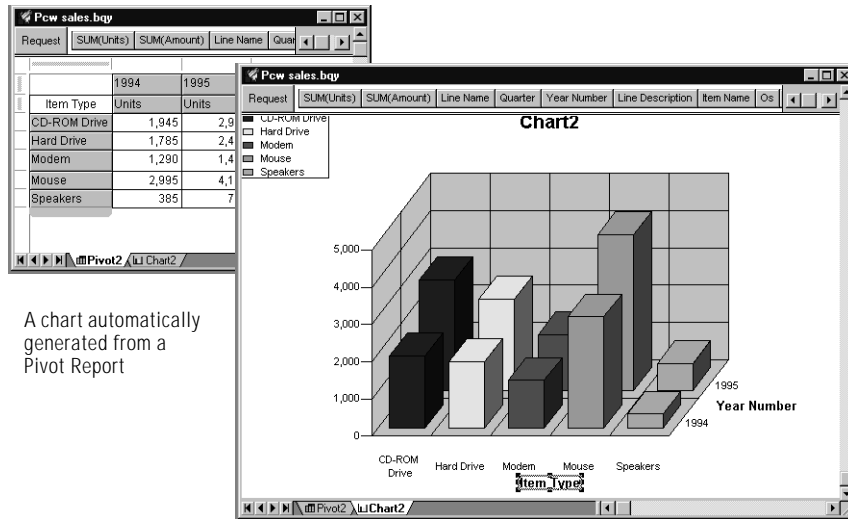
- 1 Choose *View > Sort Line*.
- 2 Use the Sort line to select a dimension to sort and the criteria by which to sort.

Chart This Pivot

Once you have a final version of your Pivot report, try BrioQuery's automatic chart generating feature. BrioQuery automatically creates a chart following the layout of the Pivot report.

To automatically chart your Pivot report

- 1 Choose *Insert > Chart This Pivot*.
BrioQuery creates a new bar chart using the data from the Pivot report.
- 2 You are automatically moved to the chart section displaying the generated chart.



A chart automatically generated from a Pivot Report

Figure 10-10 Chart This Pivot illustrated.

Data Calculations

The Pivot section provides a number of ways to perform data calculations to assist you in analyzing business trends. These calculations range from simple totals and subtotals that are useful in most reports to more complex data functions which are of use in more specialized contexts.

This section explains how to

- add totals and subtotals to a pivot report
- use Data Functions to recalculate the values in a pivot report
- use Total Functions to change the values in totaled columns or rows
- distinguish surface and underlying calculations
- determine increase and percent increases
- use weighted averages


Adding Totals and Subtotals

You can quickly add grand totals and subtotals to your Pivot report data. The totals and subtotals are created as additional rows or columns in your report.

To add totals or subtotals to reports

- 1 Click a Top or Side Label handle to select it.

Selecting the outermost label creates a total; selecting an inner label creates a subtotal.

- 2 Choose *Pivot > Add Totals* or click the Summation button  on the Standard toolbar.

BrioQuery totals the data and displays the result as the last item of that dimension or category.

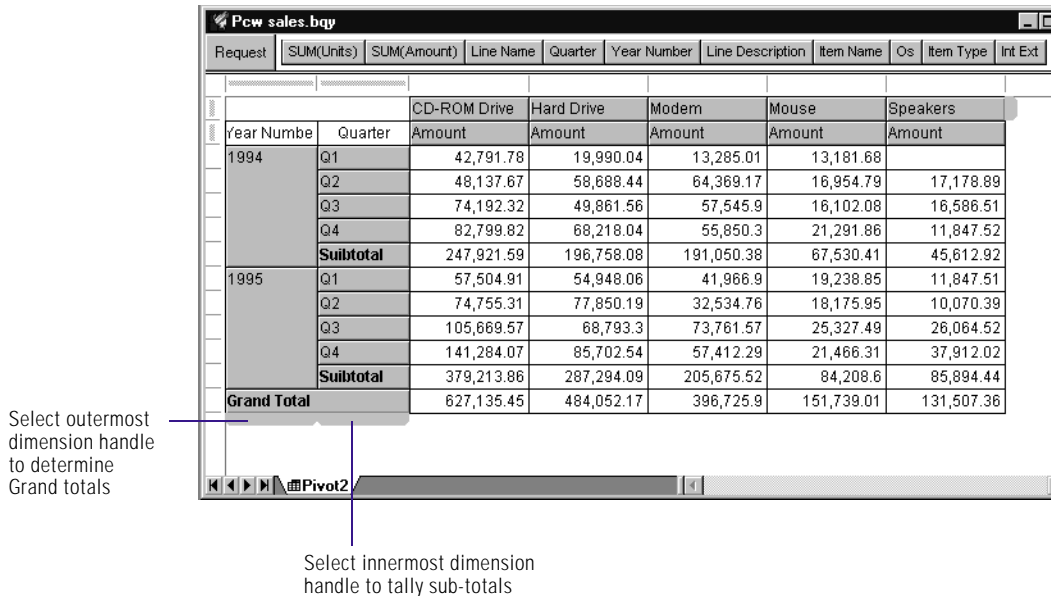


Figure 10-11 Pivot reports displaying grand totals and subtotals.

Data Functions

Data Functions enable you to change the nature of the values displayed in a Pivot report. Recall that when you create a Pivot report these values are automatically calculated. They represent *sums* of underlying values in the Results section (“Analyzing Data with Pivot Reports” on page 10-2).

Frequently you may not want the values in your Pivot report to be *sums* of the original values. You may prefer to see averages or to determine the maximum or minimum values from the original data. Data values enable you to decide on the kind of value represented in the Pivot report.

To apply a data function to a Pivot row or column

- 1 Select a row or column of data to which you want to apply a data function.
- 2 Choose *Pivot > Data Function* and select a function.

Each column or row cell value is recalculated according to the data function applied to the underlying data values. For a description of each type of data function, see Table B-3 on page B-6.

Putting Data Functions to valuable use

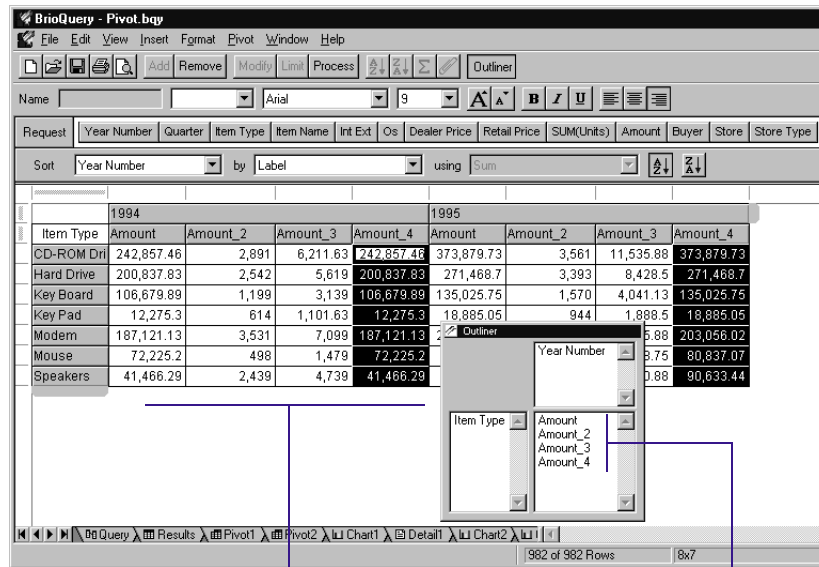
Data functions are particularly useful if you want your Pivot report to display different types of values side by side. For example, you can show the *total* sale, *average* sale, and *maximum* sale of each product by Quarter. Each of these dimensions is based on the same underlying values. They differ only in the data function that is applied.

By dragging the same numeric data item (such as “Amount”) from the Request line to the Outliner value panel several times, you can apply a different data function to the very same dimension. Each dimension refers to the same basic underlying values. But the calculation differs for each.

To display summary values of different types

- 1 Drag a numeric data item from the Request line to the value area of the Outliner.
- 2 Drag data labels into the Outliner panels.

- Again drag the same numeric data item from the Request line to the value area of the Outliner. You may repeat this procedure several times.



The same underlying data is interpreted with different data functions.

Amount_2 represents Averages,
 Amount_3 represents Maximum values.
 Amount_4 is selected so that a data function can be

The same numeric data item has been repeatedly dragged to the value area of the Outliner

Figure 10-12 Different data functions applied to the same underlying values.

- When you drag the same numeric data item to the value panel, the name changes to indicate how many times that item is in the Outliner (Amount_2, Amount_3)
- Select a row or column of data values (such as Amount_2).
- Choose *Pivot > Data Function* and select a function such as Average.
- The data values are recalculated and averages populate the row or column of the Pivot report.

If desired, change the label of the new column or row (see "Renaming Labels" on page 10-11).

Total Functions

Total Functions are identical to Data Functions with one major difference. Data Functions can be applied *only* to the underlying values. Total Functions can be applied to either:

- the underlying values from the original results section or
- the “surface” values displayed in the Pivot report

With most Total functions, the two approaches yield different results, and produce values that may appear incongruous with the values in the report.

Understanding Surface and Underlying Values

To understand this difference between “underlying” and “surface” values, consider a simple Pivot report with two values of 20 and 30. Each of these is already a total of underlying values ($20 = 8 + 12$ and $30 = 10 + 20$). An average of the underlying value yields the result of $12.5 = (8 + 12 + 10 + 20) / 4$. An average of the surface values yields the result $25 = ((20 + 30) / 2)$.

To provide the flexibility of computing totals in either manner, BrioQuery enables you to apply total functions to either underlying or surface values.

For a list of surface functions available see Table B-3 on page B-6.

Total Functions are Applied to Totalled Rows or Columns

Total functions are useful for changing the nature of values displayed in summary rows or columns. For example, imagine you first totalled the amount of sales for each product in 1994 and 1995. The values in the totalled rows could be changed from a sum of the total underlying data to an average of the total underlying values.

Total Functions, then, are data functions applied to rows or columns which were created by previously totalling dimensions of data (“Adding Totals and Subtotals” on page 10-18).


To apply a Total Function

- 1 Create totals or subtotals in your Pivot report.
- 2 Select a row or column representing totalled values.
- 3 Choose *Pivot > Total Function* and select a function.

Putting Total Functions to Valuable Use

Total Functions are particularly useful when you add more than one total row or column to your report for the same dimensions. For example, you can total Yearly amounts 3-4 times and then apply different data functions to each of the Totals. In this way, your Pivot report contrasts the sums with other kinds of values such as averages, max values, % of row.

To display multiple kinds of totals

- 1 Select the dimension handle for a particular dimension of data.
- 2 Click on the Summation icon  to produce totals.
- 3 Repeat steps 1-2 to produce an identical row or column of totalled data.
- 4 Select one of the rows or columns of totalled data.
- 5 Choose *Pivot > Total Function* and select a function.
- 6 Repeat steps 4-5 with another row or column of totalled data.

Now the two rows or columns of totalled data show contrasting values. One displays a total of the sums. The other displays totals of the averages.

To show unit or percent increase

- 1 Select a dimension handle and click Summation to calculate a total or subtotal for a dimension of data.
- 2 Alt-click (Windows and Motif) or Option-click (Macintosh) on the label for the totalled data.
- 3 Choose *Total Function > Increase* (or %Increase).

BrioQuery recalculates the total to display the unit (or percent) increase between the last two data columns.

		1994	1995	Increase
Item Type	Int Ext	Units	Units	Units
CD-ROM Drive	External	385	360	-25
	Internal	1,560	2,595	1,035
Hard Drive	Internal	1,785	2,445	660
Modern	External	355	545	190
	Internal	935	940	5
Mouse	External	2,995	4,170	1,175
Speakers	Internal	385	725	340

Figure 10-14 Pivot report displaying %Increase.

Some Tips about Increase Calculations

If you want to display increases for the values represented in your Pivot report, apply the increase function to the innermost dimension of data.

Increase functions compare the last two values *in the dimension of data nested immediately below the level at which the calculation occurs*. For example, imagine data is organized in three tiers (Year, Quarter, Operating System). If you calculate a total for Years and perform an increase function on that total, BrioQuery calculates the increase between the last two Quarters (Q3, Q4), even if you have not created a sub-total for the Quarter dimension. This is the next dimension of data immediately below Year in your Pivot Report.

Weighted Functions

Weighted averages can be very useful for a variety of purposes such as survey research or any time you want to include demographic information in your reports. For example, suppose you took a survey of 100 people, 75 male and 25 female. But according to census data in that geographic region you should have surveyed 50 males and 50 females. The data you have is skewed toward males.

To correct for this, you assign a weight or "weighting factor" to correct for the sampling error in your survey. To calculate a weight you take the expected amount divided by the actual amount.

In the example, the men would have a weighting factor of .6666 (50/75) and the women would have a weight of 2 (50/25). Any calculation would calculate each man as .6666 and each woman as 2.

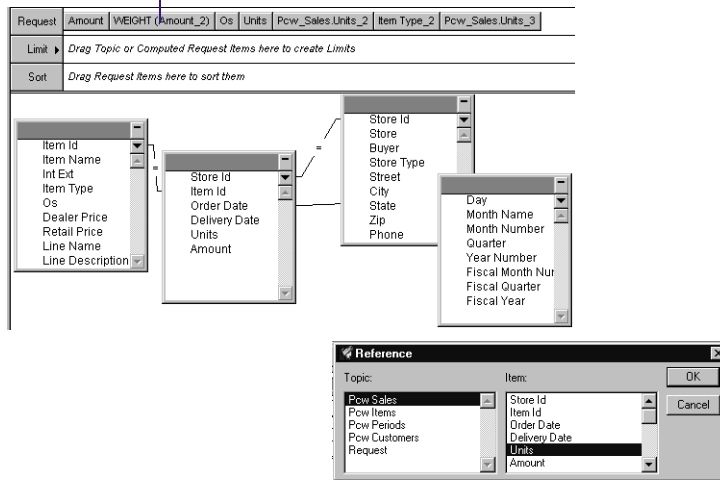
Weighted Averages can also be used to apply different levels of importance to a given item. Take, for example, a survey which has multiple questions. The responses can be rated on a scale of 1 to 5. By assigning a weight to each question based on the level of importance (the higher the number the more important), and using that weight in calculating a weighted average, you can arrive at averages that are more meaningful.

Setting up Weighted Values

To use weighted values, a column of data must be added to the database indicating the relative weight of each corresponding value in another column. The statistical calculation for weighted averages depends on the following mathematical formula $(c * w) / \text{sum}(w)$.

Customer ID	Units Sold	Type of Store	Weight
1435	80	Electronics	8
1539	200	Computer	10
1634	60	Electronics	8
1213	900	Discount	2

In the Query section, one data item selected for weighting



Reference window opens prompting you to select the data item where Weight values are located.

Figure 10-15 Using Weighted Averages

To use weighted averages or functions

- 1 A column of data with the weighted values must exist in the database.
- 2 In the Query section, select a data item for which weight values are needed.
- 3 Choose *Query > DataFunction > Weight*.

A Reference window opens prompting you to indicate where to find the column of weighted values.

- 4 Select the data item containing the weighted values and click OK. The item in the request line is renamed indicating it is a weighted value.
- 5 Process the Query.

The Weighted values are returned in the Results section.

- 6 Go to the Pivot section and drag the Weighted item to the Outliner.
 - Note** Weighting functions work in the Pivot report only.
- 7 You may now use all the various Data Functions (e.g., averaging, max, min) on the Weighted values.

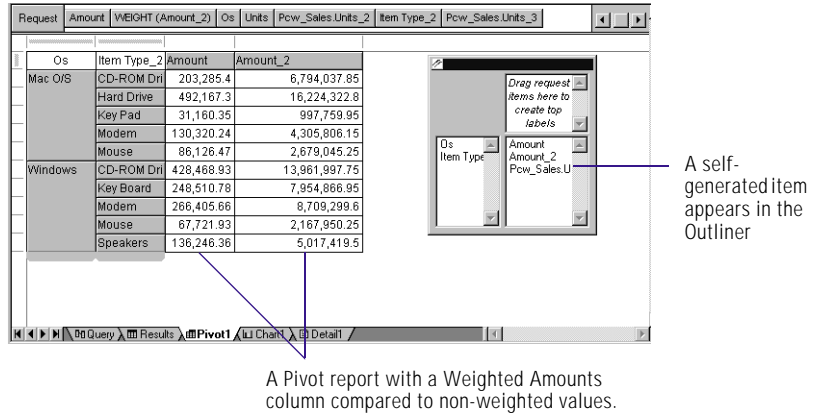


Figure 10-16 Use of weighted functions in the Pivot Report.

Computed Items

Computed Items enables you to design calculations that you wish to perform on each of the values represented in a Pivot dimension.

For example, if you wanted to know how much of the total sales in a year was sales tax, you could ask BrioQuery to calculate the sales tax for each sale and subtract it from the totalled value and represent the new data in its own column.

Computed Items are discussed in detail in Chapter 8: *Computed Items*.

Where To Go From Here

BrioQuery offers a number of tools and features for formatting Pivot Reports. See Chapter 13: *Common Report Features*, for information on:

- applying color
- using the Spotlighter
- exporting your reports
- duplicating your reports

For general formatting and printing information, refer to Chapter 4: *BrioQuery Fundamentals*