Lesson 13 The Chart Wizard

Lesson Topics

- Using the Chart Wizard
- Switching the Data Series
- Exercise: Creating an Embedded Chart

Lesson Objectives

At the end of the lesson, you will be able to:

- Use the Chart Wizard to create an embedded chart, select the chart type, and add titles and a legend;
- Select the rows or the columns to be the data series in a chart.

Student Files Used

You will use the following files from your student folder:

- Year End Sales
- Sales Chart 4
- District Sales 2

Using the Chart Wizard

As you know, you can create a new chart by selecting the data to be charted and tapping the CHART key, F11. Excel creates a chart on a separate worksheet and uses the default settings, including the chart type. Later, you can change items, such as the chart type, format, and titles. As you have just seen, you can also copy it to the same worksheet as its data.

You can also use the *Chart Wizard* to create a new chart. If you want to accept Excel's defaults for a chart, you click the Finish button and the chart will appear on a separate sheet just as it does when you tap F11. However, the Chart Wizard dialog boxes let you choose various settings and specify whether the chart goes on a separate sheet or is embedded on the worksheet containing the data.

You are going to use the Chart Wizard to create a new chart that will be embedded on the same sheet as its data. You will use a workbook named *Year End Sales*.

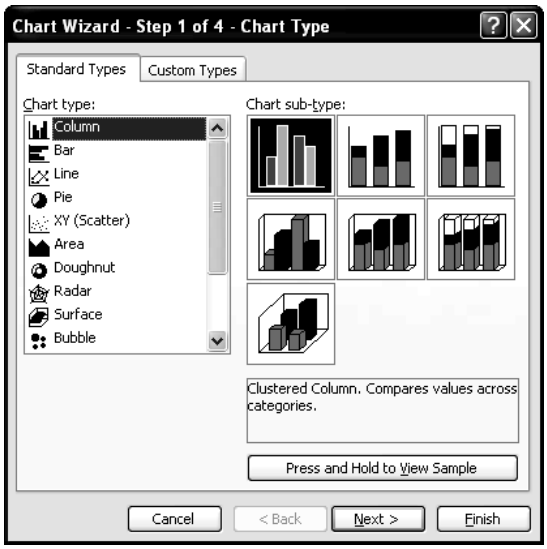
1. **Open** *Year End Sales*.

2. **Click anywhere in the table.**

   This is the data you will chart. You do not have to select the entire table — if only one cell is selected, Excel assumes you want all the table's data.

3. **On the Insert menu, choose** *Chart*.

   The Chart Wizard dialog box appears. It looks almost identical to the Chart Type dialog box except



for the buttons at the bottom. Notice that its Title bar indicates that it is the first of four steps.

Tip: You can access the Chart Wizard by either choosing *Chart* on the Insert menu or clicking the Chart Wizard button on the Formatting toolbar.

4. You are going to accept the column chart that has been selected and move to the next step.

Click the Next button at the bottom.

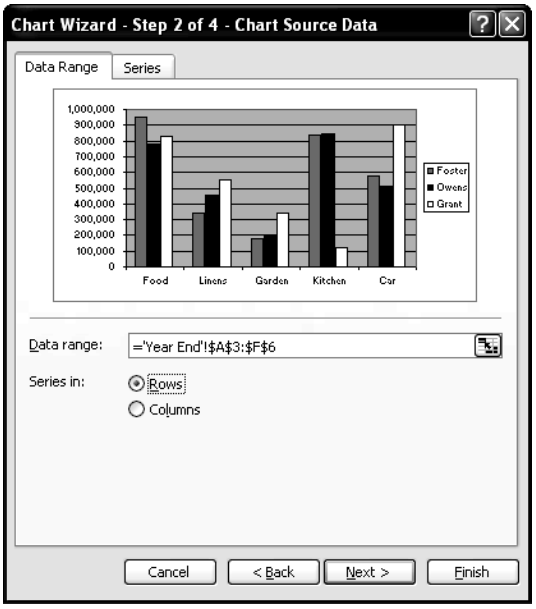
Step 2 asks you to define the data range.

5. Verify that the Data Range tab is selected.

Notice that the range has already been entered in the *Data range* box, and, if the *Data range* box is selected, there is a flashing marquee around the range in the worksheet.

In the *Series in* section, *Row* is chosen. The *series* determine how data is categorized on the chart — the series are what are labeled in the *Legend*. You will learn about this shortly.

6. Verify that *Rows* is selected.



7. If you change your mind, you can always go back to any of the previous dialog boxes and change the settings.

To demonstrate this, you are going to go back and select a column chart.

Click the Back button to return to the previous step.

8. **At the right side of the dialog box, select the second *Column Chart* subtype, which is a *Stacked Column* chart.**

9. **Click the Next button two times to go to *Step 3*.**

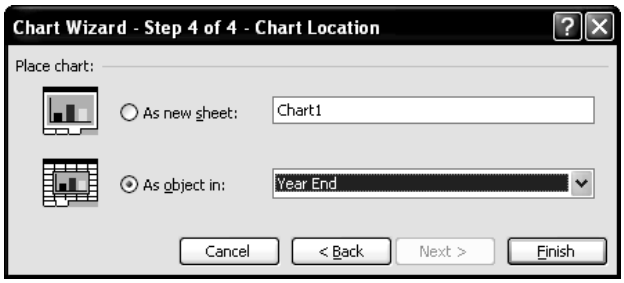
   Step 3 presents tabs for six items — *Titles, Axis, Gridlines, Legend, Data Labels,* and *Data Table*. You can make changes for all of these items. You saw this dialog box when you changed titles. It was accessed by choosing *Chart Options* on the Chart menu.

10. **Click the Titles tab.**

11. **Click an insertion point in the *Value (Y)* text box, type** Dollars**, and then tap the TAB key so the title will appear in the preview box.**

12. **Click the Next button.**

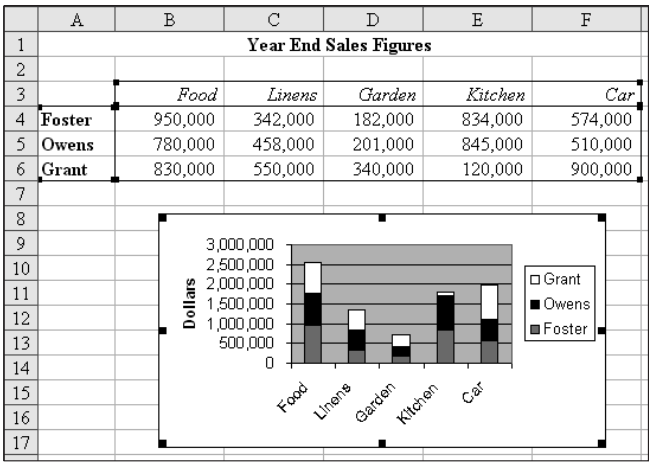
    Notice that you can have the chart inserted as a new sheet or an object (which embeds it on the worksheet with the data).



13. **Verify that *As object in* is chosen.**

14. **Click the Finish button.**

    Notice the embedded chart. If your chart is covering the data table, drag it below the table. You might want to drag its handles to resize it so it looks similar to the one below.



15. **Close** *Year End Sales*. **There is no need to save it.**

Note: As you have seen, you can click the Finish button at any time in the Chart Wizard. All the remaining defaults will be applied.

Switching the Data Series

You have already noticed that Excel sets up the data series (along the X-axis) and the categories (along the Y-axis) automatically when creating a chart. Although Excel usually makes the appropriate decision, you can change what it selects as the data series. You are going to open *Sales Chart 4* so that you can refer to it in the following discussion.

1. **Open** *Sales Chart 4*.
2. **Verify that** *SALES* **is the active sheet.**

Up to now, the information in the rows (in this case, the sales people) has been used as the *data series*. The information in the columns (in this case, the quarters) has been used as the *categories*. Excel's default is to have fewer data series than categories. Because there are fewer rows than columns in this chart, Excel made the rows the data series. If there had been fewer columns than rows, Excel would have made the columns the data series. (When there are the same number of rows as columns, Excel makes the rows the data series.)

You can override this default and use the columns as the data series. So far, you have been charting the data in *Sales Chart 4* as *quarters vs. sales*, with the sales people as the data series and the

quarters as the categories. This same data can also be charted as *sales people vs. sales*, with the quarters as the data series and the sales people as the categories. Keep in mind that this only changes what is placed on the X-axis and in the Legend box — it does not change the Y-axis.

1. You are going to create the same chart you created before, but you will switch the data series.

   Click any cell in the table to select it.

2. **On the Standard toolbar, click the Chart Wizard button.** 

   Step 1 of the Chart Wizard dialog box appears.

3. **To accept the default Column chart, click the Next button.**

4. **On Step 2, first verify that the range is *$A$3:$E$6*.**

5. The *Series in* option lets you change the source of the data series. Notice that it is currently set at *Rows*.

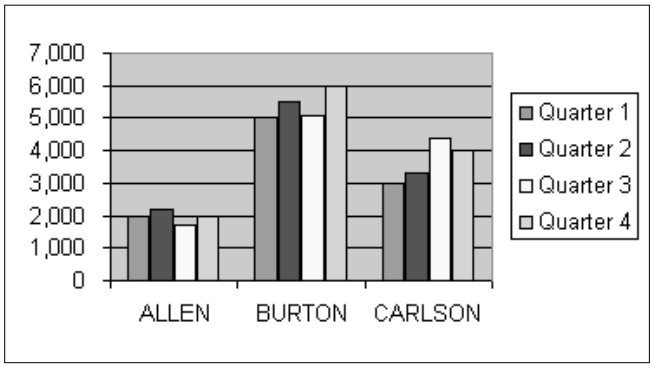
   Choose *Columns*.

   The change occurs in the *preview* box.

6. You are going to accept the defaults in Steps 3 and 4.

7. **Click the Finish button to return to the workbook.**

   Notice the embedded chart. The quarters are now the data series and the sales people are the categories. Each column on the chart represents the sales for a quarter, instead of the sales for a sales person.



8. You are going to compare this sheet with *Chart1*.

   Click the *Chart1* sheet tab.

Notice the chart. The sales people are now the data series and the quarters are the categories. Each column on the chart represents the sales for a sales person, instead of the sales for a quarter.

You can switch the data series of an existing chart. You are going to do this with *Chart1*.

1. **Verify that *Chart1* is the active sheet.**
2. **On the Standard toolbar, click the Chart Wizard button.**
3. **Click the Next button.**
4. **In the *Series in* box, choose *Columns* and click the Finish button.**

   Notice the chart with the switched data series. It should look exactly like the embedded chart that you created for the *Sales* sheet.

The *By Row* and *By Column* buttons on the Chart toolbar let you bypass the Chart Wizard.

1. **The *Chart1* sheet should still be active.**
2. **On the Chart toolbar, click the By Row button.** 

   Notice that the data series switched.
3. **On the Chart toolbar, click the By Column button.** 

   Notice the switched data series.
4. **Close *Sales Chart 4*. It will not be used again.**

Exercise: Creating an Embedded Chart

To review the topics in the lesson, you are going to create an embedded chart with titles. You will switch the data series for the chart. We will provide you only with the general steps to follow.

1. **Open *District Sales 2*.**
2. **Verify that the *Sales* worksheet is active.**

3. Because there are more rows than columns for the chart range, the columns (years) are the data series and the rows (districts) are the categories.

   Select the range A3:D8.

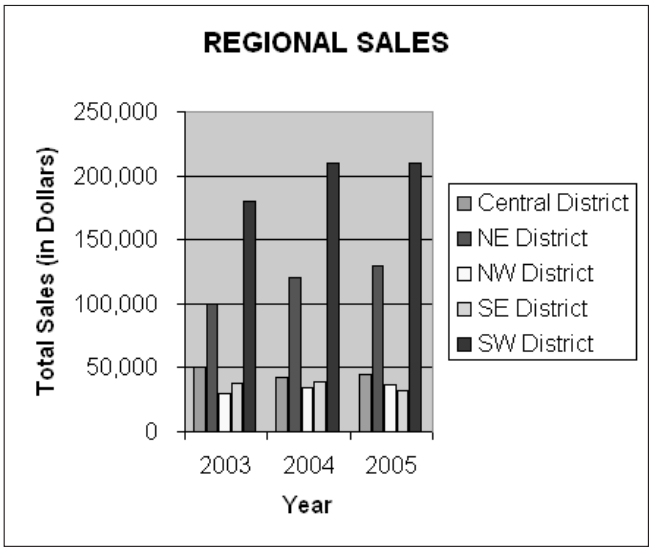
4. **On the Standard toolbar, click the Chart Wizard button.**

5. **As you proceed through the Chart Wizard steps, verify that a column chart is selected. Make sure that *Rows* is chosen as the *Series in* option. In addition to a legend, you should add appropriate titles for the chart and both axes.**

6. **Place the chart as an object in the *Sales* worksheet.**

7. **When finished, you might want to resize it so your chart looks similar to the one below.**

   Notice that the years are on the X-axis and that the districts are the data series. The sales remain on the Y-axis.



8. You are going to compare this chart with a chart that was created using the default settings.

   Click the *Chart1* sheet tab.

   Notice the data series and categories. The data have been charted by districts vs. sales.

9. **Close the workbook. It will not be used again.**

Note: When the first row contains text, Excel uses this to name the categories on the X-axis. When the first column contains text, Excel uses this to name the data series in the Legend box. (This assumes that there are more columns than rows in the chart range.) If there are no labels for the data series, Excel names them *Series 1, Series 2*, etc. If there are no labels for the categories, Excel names them *1, 2,* etc.

End of Lesson 13