Using IBM® Lotus® Symphony™ Spreadsheets: Beyond Basics

Student Guide

Using IBM® Lotus® Symphony™ Spreadsheets: Beyond Basics

Part Number: Y1300
Course Edition: 1.0

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About This Course

A spreadsheet should be easy to interpret and visually appealing. Formatting a spreadsheet will improve its aesthetic appeal and help avoid data cluttering. By applying format options, you can visually differentiate one set of data from another, making it easier to locate and analyze information.

Course Description

Target Student

This course is designed for IBM® Lotus® Symphony™ end users who will use these materials to learn the intermediate tasks associated with the Lotus Symphony Spreadsheets editor.

Course Prerequisites

This course assumes that students have some experience with using spreadsheet software.

How to Use This Book

As a Learning Guide

Each lesson covers one broad topic or set of related topics. Lessons are arranged in order of increasing proficiency with IBM Lotus Symphony Spreadsheets; skills you practice in one lesson are used and developed in subsequent lessons. For this reason, you should work through the lessons in sequence.

Each lesson is organized into results-oriented topics. Topics include all the relevant and supporting information you need to master Lotus Symphony Spreadsheets, and activities allow you to apply this information to practical hands-on examples.

As a Review Tool

Some of the information covered in class may not be relevant to your environment immediately, but it may become important later on. For this reason, we encourage you to spend some time reviewing the topics and activities after the course.

As a Reference

The organization and layout of the book make it easy to use as a learning tool and as an after-class reference. You can use this book as a first source for definitions of terms, background information on given topics, and summaries of procedures.

Course Objectives

After completing this course, you should be able to:

- Format and protect Lotus Symphony Spreadsheets files.
- Add content and visual elements to spreadsheets.

Course Requirements

Hardware

This course assumes users will be using their personal computer to take this course. The following are the system requirements to support an installation of IBM® Lotus® Symphony™ 1.1:

- At least 750 MB of free disk space on Linux, and at least 540 MB of free disk space on Microsoft® Windows®.
- At least 512 MB of memory.

Software

The following list identifies the software requirements for installing Lotus Symphony 1.1. Please note that proper licensing for all software is required and is the responsibility of the training organization.

- Microsoft® Windows® XP with SP2 or Microsoft Windows Vista®
- IBM Lotus Symphony 1.1

Class Setup

Course Files

The following table describes the course files.

Table 0-1: ***Course files***

Title	File name	Description
Top Sales Report	TopSalesReport.ods	Spreadsheet file that will be used in the lesson 1 activity.
Top Sales Report	TopSalesReport – BeyondL2.ods	Spreadsheet file that will be used in the lesson 2 activity.
WWCorp logo	wwcorplogo.png	Graphic file that will be used in the lesson 2 activity.

Course Setup Tasks

Complete the tasks in the following table to set up the course prior to the start of class. Detailed procedures for each task appear on the following pages.

Table 0-2: ***Course setup tasks***

Task	Procedure
1	Uninstall any previously installed version of IBM Lotus Symphony.
2	Install Lotus Symphony 1.1.
3	Install the course data files.

Task 1: Uninstall Previous Versions of IBM Lotus Symphony

If you currently have an earlier version of Lotus Symphony installed, you will need to uninstall it prior to installing Lotus Symphony 1.1. Follow these steps to uninstall any previously installed versions of Lotus Symphony.

Table 0-3: ***Uninstall previous versions of IBM Lotus Symphony***

Step	Action
1	Verify that Lotus Symphony is closed.
2	Click **Start→Control Panel→Add or Remove Programs.**
3	In the **Add or Remove Programs** dialog box, click **IBM Lotus Symphony** and then click **Remove.** **Note:** It may take a few minutes for the program to uninstall.

Task 2: Install Lotus Symphony 1.1

If you have not yet installed Lotus Symphony 1.1, you will need to do so before taking this course. Follow these steps to install Lotus Symphony 1.1.

Table 0-4: ***Install Lotus Symphony 1.1***

Step	Action
1	In a Web browser, go to http://symphony.lotus.com/software/lotus/symphony/home.nsf/home and click **Download** to download the Lotus Symphony 1.1 installation files. A new window opens and lists the IBM Lotus Symphony installation types. Click the version for the Windows operating system. In the next window, the product information is displayed. Select a language and click **Continue.** Select **I agree** after viewing the licensing information, and then click **I confirm.**
2	In the **Download using Download Director** dialog box, select **Lotus Symphony Setup for Windows** and click **Download now.**
3	After the files have finished downloading, click **Launch** in the Download Director.
4	The **Installation Wizard for IBM Lotus Symphony** is displayed. On the **Welcome to IBM Lotus Symphony 1.1** page, click **Next.**
5	On the **Software License Agreement** page, select **I accept the terms in the license agreement,** and click **Next.**
6	On the next page, leave the default install location or browse to and select a custom location, and then click **Next.**

Step	Action
7	On the **File Type Associations** page, verify that the **Open Document Format file types** and **OpenOffice.org 1.1 file types** are selected by default. Click **Next.**
8	On the next page, click **Install.**
9	On the **IBM Lotus Symphony Install Complete** page, verify that **Open Lotus Symphony** is selected, and then click **Finish.**

Task 3: Install the Course Data Files

Data files for students to use during the course activities are provided and installed as part of course setup.

Table 0-5: ***Install the course data files***

Step	Action
1	Open the **Y1300labfiles.zip** file and run the **Y1300labfiles.exe** self-extracting file. This executable will create the **\lotus_ed** folder and install sub-folders named **\Documents, \Spreadsheets,** and **\Presentations. Note:** These course files apply to all Lotus Symphony training modules, so you will only need to install these files once.

Course Icons

The following table explains the icons used in this course.

Table 0-6: ***Course icons***

Icon	Description
	An **activity** is a student-centered learning process that allows students to learn by performing a task. Activities can be instructor-led or completed independently.
	**Scenario** information is used to introduce an activity problem or goal. Scenarios use fictitious people and organizations to present details, problem statements, and parameters that are used to complete the activity or lab exercise.
	**Caution** statements are included in the courseware to make students aware of potential negative consequences of an action, setting, or decision, that are not easily known.
	**Tips** and **notes** provide additional information, guidance, or a hint about a topic or task.

Icon	Description
	An **Instructor Note** is a special comment to the instructor regarding delivery, classroom strategy, classroom tools, exceptions, and other special considerations. The Instructor Note is included in the Instructor Guide only.
	A **Display Slide** provides a prompt to the instructor to display a specific slide. The Display Slide icon is included in the Instructor Guide only.

Formatting and Protecting IBM® Lotus® Symphony™ Spreadsheets

- **Topic A:** Specifying Page Formatting
- **Topic B:** Formatting Sheets
- **Topic C:** Protecting Cells and Sheets

Introduction

IBM® Lotus® Symphony™ Spreadsheets has many tools available that allow you to uniquely format your spreadsheet and enhance its visual appeal.

After completing this lesson, you should be able to:

- Specify page formatting.
- Format sheets.
- Protect sheets and cells.

Topic A: Specifying Page Formatting

In order to attract the attention of readers, magazines use attractive colors and styles to present articles and their title pages. Similarly, applying page formatting will enhance your spreadsheets by heightening their visual appeal, making them very attractive and interesting.

Page Style

A **style** is a named collection of appearance settings that can be applied to cells or pages in a spreadsheet. Using a style can be quicker than applying individual formatting options, and it can ensure consistency of formatting throughout a document. A style may include text formatting options such as different typefaces, colors, and effects, as well as cell formatting options such as line spacing, borders, and shading. You can use built-in styles, modify existing styles, or create your own custom styles. To access this function, click **Layout→Style list.** In the **Style List** dialog box, click a **Style type** in the drop-down list, and then select from the available styles in the **Style** list. There are several default styles available, or you can create a new style with custom preferences.

The following figure shows the **Style List** dialog box.

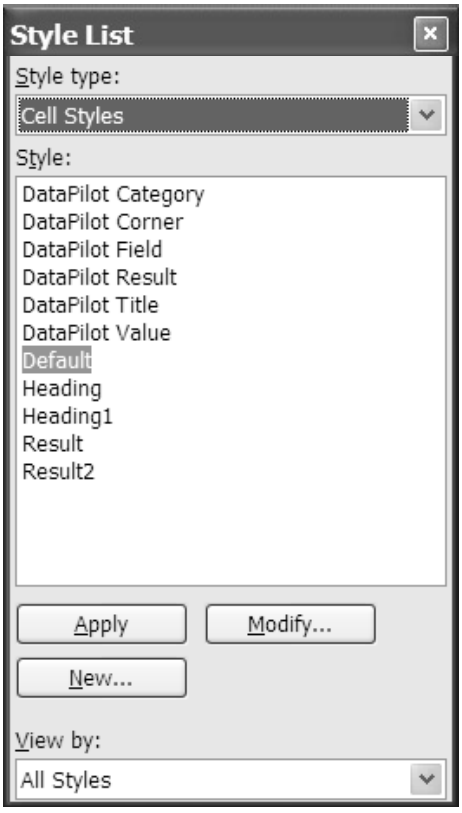


Figure 1-1: ***The Style List dialog box***

To create a new style, click **New.** The **Style** dialog box displays. You should first name the new style, so you can easily locate it for use later. The following figure shows the **Style** dialog box.

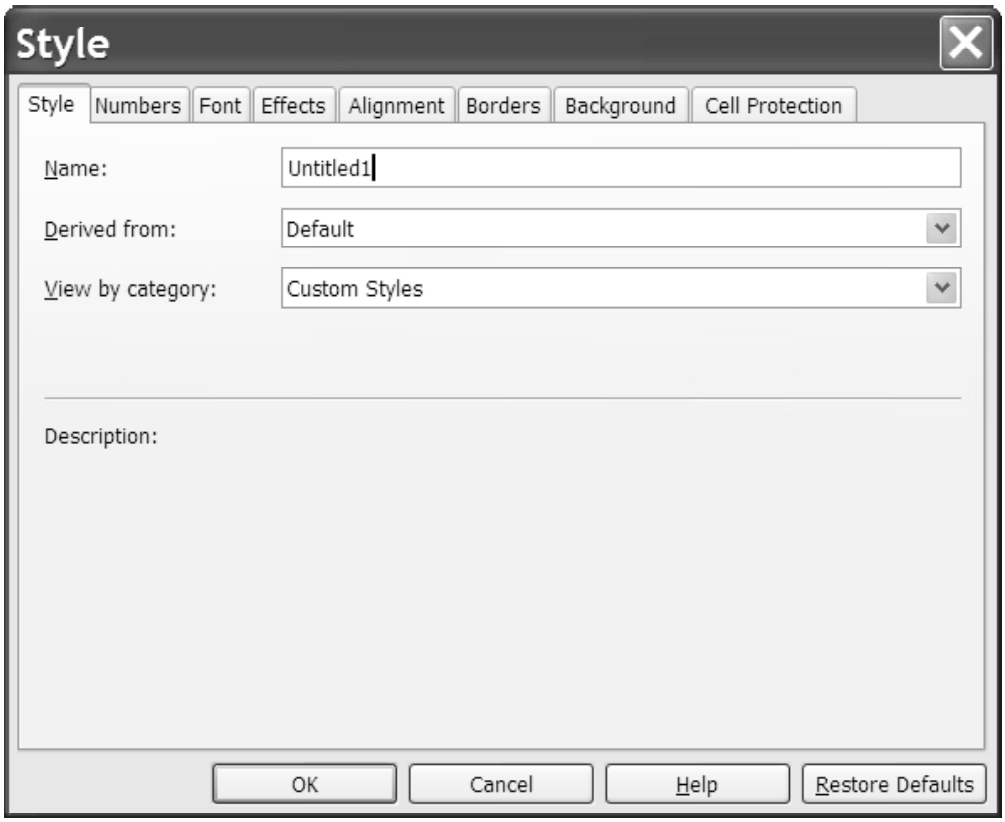


Figure 1-2: ***The Style dialog box***

The **Style** dialog box contains multiple tabs, each containing different options you can configure to create your custom style:

- **Numbers:** Allows you to define the number format for the selected area or the current cell.
- **Font:** Allows you to define the font format for the select area or the current cell, including font type, size, style, and color.
- **Effects:** Allows you to define effects for text in a selected area or the current cell, including underlining style, strikethrough options, emphasis marks, and other style options.
- **Alignment:** Allows you to define alignment for a selected area or the current cell.
- **Borders:** Allows you to define border options for the selected area or the current cell.
- **Background:** Allows you to define a background color or graphic object.
- **Cell Protection:** Allows you to define cell protection for a selected area or the current cell.

Page Borders

To define border styles for the pages in a spreadsheet, click **File→Page Setup** and then click the **Borders** tab. Select one of the default border styles in the **Default** section. Select a line style and color for the selected border style in the **Line** section. These settings apply to all border lines that are included in the selected border style. Select the distance between the border lines and the page contents, the shadow position, and the shadow color in the **Shadow style** section. Click **OK** to apply your changes.

The following figure shows the Border options.

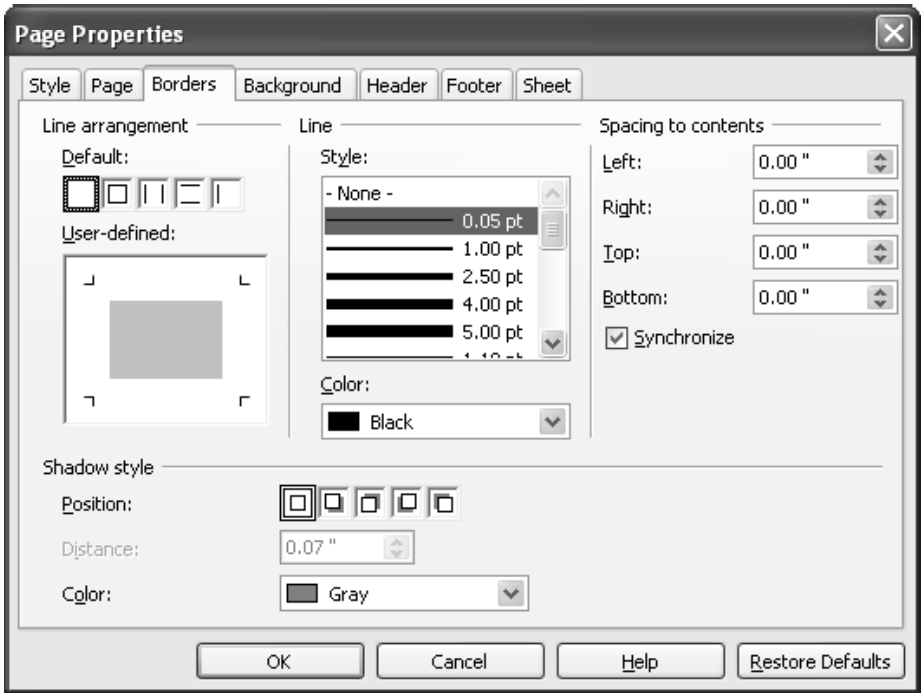


Figure 1-3: ***The Border options***

Page Background

You can select a color or a graphic image to use in the background of each page of your spreadsheet. To access the background options, click **File**→ **Page Setup** and then click the **Background** tab. To select a single color as the background, click **Color** in the **Background type** drop-down list. Then select a color as the background color or click **No fill.** Below the color areas, the name of the current background color is shown. Click **OK** to apply the currently highlighted color.

The following figure shows the Background color options.

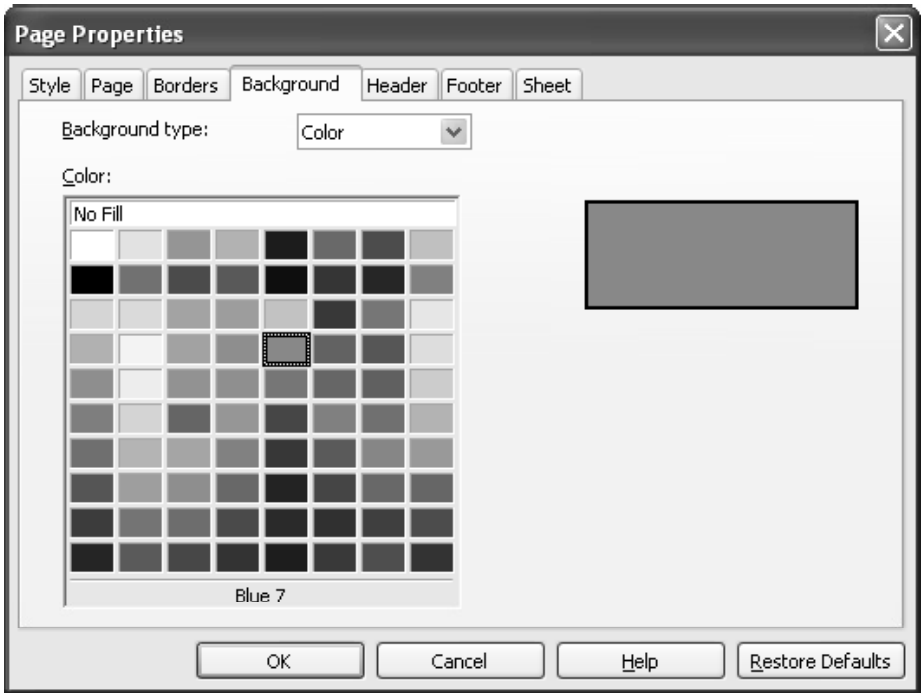


Figure 1-4: ***The Background color options***

To select a graphic image as the background, click **Graphic** in the **Background type** drop-down list. Click **Browse** to open the **Search Pattern** dialog box, which allows you to navigate to and select a graphic image for use as a background. Click **Link** to specify that you want to link the selected image with your spreadsheet. If you select this option, the directory of the image will be displayed under the **Link** check box. Select **Preview** to see the image in the preview area before inserting it in the spreadsheet. Click **Position** to specify where to position the image on the page by clicking one of the circles in the position field to specify where to position the image on the page. Click **Area** to specify that the image is repeated and displays multiple copies of the image as a tile pattern background.

The following figure shows the Background graphic options.

Figure 1-5: ***The Background graphic options***

Headers and Footers

IBM® Lotus® Symphony™ provides you with options to create custom headers and footers. To access the header and footer options, click **Create→ Header and Footer** to display the **Header and Footer** dialog box. There are separate tabs for **Header** and **Footer,** but each contain the same options. You can use the settings to insert page numbers, page count, sheet number, and text. You can also choose which area of the page to add header or footer content: left, center, or right. Headers and footers are added to the current page style. Any page that uses the same style automatically receives the header or footer that you add to the document.

Formatting headers and footers

You can define different headers and footers for left or right pages by using the **Page Setup Properties.** You can also apply direct formatting to the text in a header or footer, such as adding a separator line or a shadow as a border. You can adjust the spacing of the text relative to the header or footer frame. To add a border to the header or the footer, click the **Borders** tab within **Page Properties.** To add a separator line between the header or the footer and the content of the page, in the **User-defined** section, click where you wish the line to display. Click a line style in the **Style** area and select a color for the line. To add a shadow to the header or the footer, select the desired **Shadow style** options and click **OK.**

Freezing Rows or Columns as Headers

When you have a large spreadsheet that requires scrolling to view all the content, you can designate specific rows or columns to freeze, so that when you scroll down or to the right, those rows remain to help orient the viewer. To designate rows to freeze, select the row below the row you want to be in the frozen region, or to designate columns to freeze, select the column to the right of the row you want to be in the frozen region. To freeze both vertically and horizontally, select the cell that is below the row and to the right of the column that you want to freeze. After you have selected the correct location, click **View→Freeze Window.**

Topic B: Formatting Sheets

There may be times that you will need to incorporate multiple spreadsheets related to the same topic into a workbook. You might have more sheets that contain data. You might have individual sheets you need to rearrange. With the proper tools, you can create workbooks of varying sizes that allow you to collect information efficiently.

Creating Sheets

To insert new worksheets, you can click **Create→Sheet,** or you can right-click a sheet tab and click **Insert Sheet.** Either option will display the **Create Sheet** dialog box. In the **Create Sheet** dialog box, you can choose to insert the new sheet before or after the current sheet. In the **Sheet** section, you can select the number of sheets to insert and type a name for the sheet.

The following figure shows the **Create Sheet** dialog box.

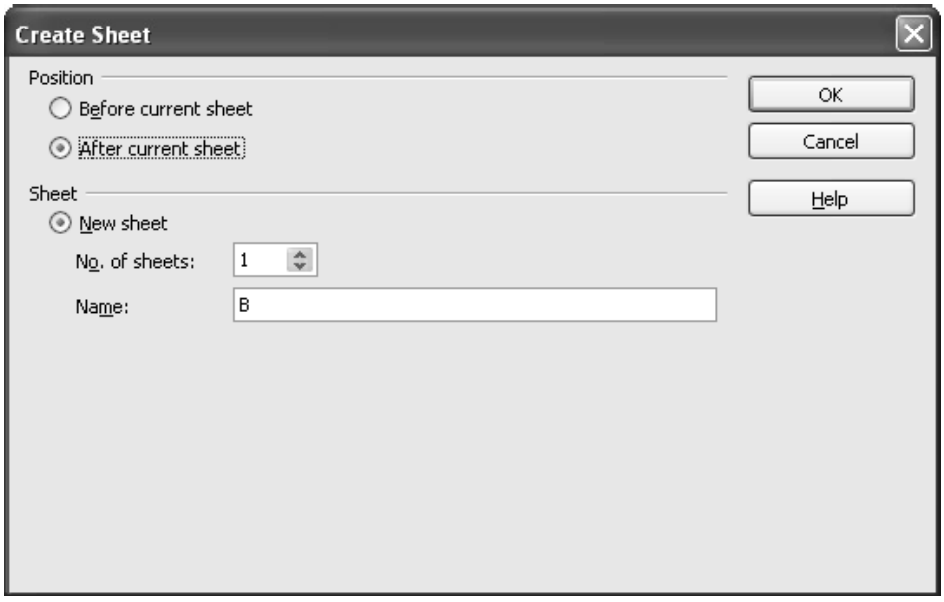


Figure 1-6: ***The Create Sheet dialog box***

Renaming Sheets

IBM® Lotus® Symphony™ Spreadsheets allows you to rename sheets to more easily identify and organize your data in a workbook. The name of a sheet may consist of letters, numbers, and spaces. The name of a sheet is independent of the name of the spreadsheet. To rename a sheet, right-click

the name tab of the sheet you wish to rename and click **Re-label Sheet.** The **Re-label Sheet** dialog box displays, where you can enter a new name. Enter a new name for the sheet and click **OK.** You can also press and hold the Alt key and click any sheet name to activate edit mode and type the new name.

The following figure shows examples of named sheets.

Figure 1-7: ***Examples of named sheets***

Copying or Moving Sheets

Lotus Symphony Spreadsheets gives you several tools you can use to move or copy sheets within the same workbook or between workbooks. You can reposition sheets by using the **Move/Copy Sheet** dialog box or by manually dragging a sheet to its new location. To access the **Move/Copy Sheet** dialog box, click **Edit→Sheet→Move/Copy,** or right-click the sheet tab and click **Move/Copy Sheet.** In the **Move/Copy Sheet** dialog box, you select the document to which you want to copy the sheet. By default, the current document is listed. If you wish to copy to a new spreadsheet file, that file should be open in Lotus Symphony Spreadsheets in order to be listed in the **To document** drop-down list. The **Insert before** list box lists all sheets in the current document. Select the sheet name before which you want to copy the sheet, or select **move to end position** to move the sheet to last in the workbook.

The following figure shows the **Move/Copy Sheet** dialog box.

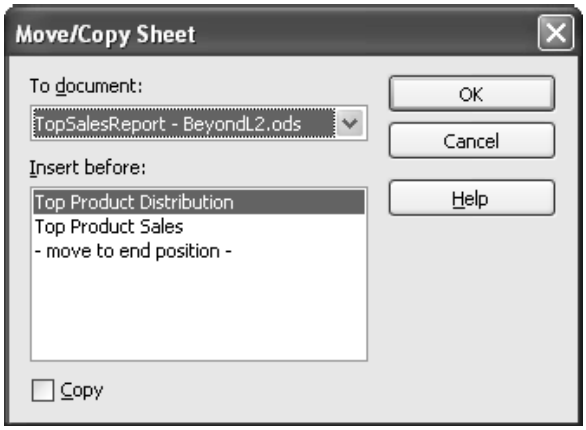


Figure 1-8: ***The Move/Copy Sheet dialog box***

Deleting Sheets

To delete sheets with unwanted or obsolete data, you can use the **Delete** option that can be accessed by clicking **Edit→Sheet→Delete.** For the **Delete** option to be available, you must first select the sheet by clicking the appropriate sheet name tab. A warning message will display asking you to confirm your intention to delete the selected sheet. Click **OK** to continue deleting the sheet.

Note: You cannot delete a sheet if changes to the document are being recorded or if the **Record Revisions** option is active. To verify that changes are not being recorded, click **Edit→Revisions→Record.** An arrow next to **Record** indicates the option is enabled; select it to disable the Record option.

Navigating Through Sheet Tabs

The **Spreadsheet Navigator** is a handy stand-alone navigation tool that can be access by clicking **Edit→Navigator** or pressing Ctrl+Shift+F5. The Navigator contains the following options to help you easily locate content:

- **Column:** Type the column letter in the **Column** spin box . Press Enter to reposition the cell cursor to the specified column in the same row.
- **Row:** Type a row number in the **Row** spin box. Press Enter to reposition the cell cursor to the specified row in the same column.
- **Data Range** : Specifies the current data range denoted by the position of the cell cursor.
- **Start** : Moves to the cell at the beginning of the current data range, which you can highlight using the **Data Range** button.
- **End** : Moves to the cell at the end of the current data range, which you can highlight using the **Data Range** button.
- **Form Navigator** : Displays all forms and subforms in the current spreadsheet.
- **Contents** : Shows or hides the contents in the **Navigator** dialog box.
- **Toggle** : Toggles the content view. Only the selected Navigator element and its sub-elements are displayed. Click the icon again to restore all elements for viewing.
- **What If** : Displays all available scenarios. Double-click a name to apply that scenario. The result is shown in the sheet.
- **Drag mode** : Opens a submenu for selecting the drag mode. You can also select the drag mode through the context menu in the Navigator window. You decide which action is performed when dragging and dropping an object from the Navigator into a document. Depending on the mode you select, the icon indicates whether a hyperlink, a link, or a copy is created.

The following figure shows the Lotus Symphony Spreadsheets **Navigator.**

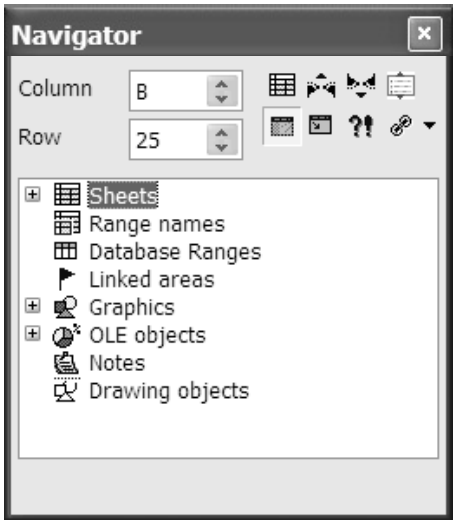


Figure 1-9: ***The lotus Symphony Spreadsheets Navigator***

Rotating Sheet Columns and Rows

Lotus Symphony Spreadsheets provides an option that transposes or rotates spreadsheet data so that the rows become columns and the columns become rows. To do this, select the cell range that you want to transpose, and click **Edit→Cut.** Then, click the cell that will be the top-left cell in the results of transposing the content. Click **Edit→Paste Special.** In the **Paste Special** dialog box, select **Paste all** and **Transpose.** Click **OK** to view the transposed columns and rows.

The following figure shows the **Paste Special** dialog box.

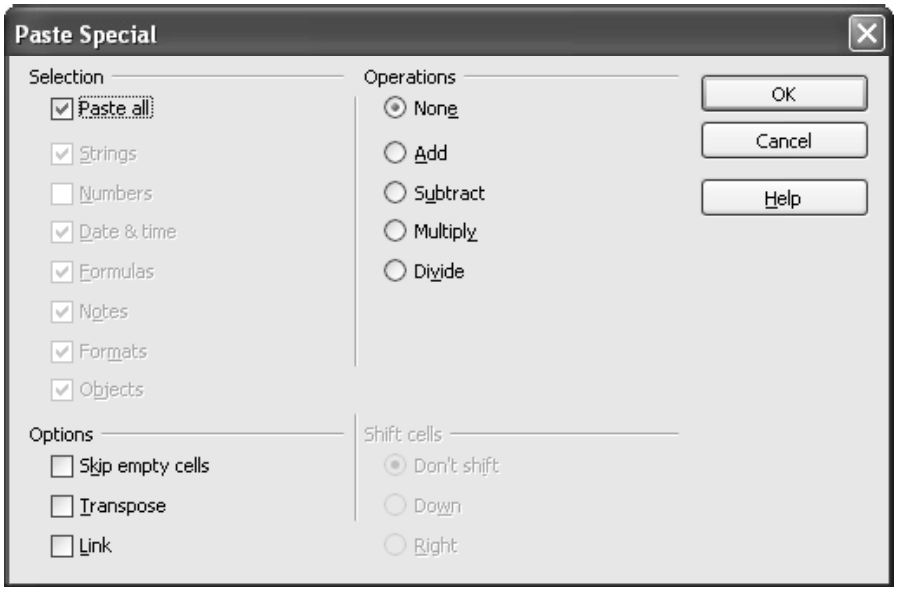


Figure 1-10: ***The Paste Special dialog box***

Topic C: Protecting Cells and Sheets

You have a spreadsheet that other users in your organization need to read. However, you do not want anyone to alter the data or layout of the spreadsheet in any way. Before sharing the spreadsheet, you decide to protect it so the other users will have read-only access. Protecting files gives you the flexibility to share them while knowing that the data is secure.

The Instant Corrections Property

IBM® Lotus® Symphony™ provides an **Instant Corrections** property that automatically corrects many common typing errors and applies formatting while you type, such as replacing straight quotes with custom smart quotes or always beginning cell content with an uppercase letter (when it begins with a letter). You can immediately undo any instant corrections by pressing Ctrl+Z. To deactivate and reactivate the **Instant Corrections** properties, click **Tools→Instant Corrections.** The **Instant Corrections** dialog box provides four categories of options that must be individually selected or cleared:

- **Replace:** Lists text the should be replaced with different text, used to fix common typographical errors or add common symbols.
- **Exceptions:** Lists acceptable abbreviations that you do not want Lotus Symphony to indicate as misspelled words and lists words that contain two capital letters that should not be indicated as incorrect.
- **Options:** Lists various formatting options.
- **Custom Quotes:** Allows you to indicate the type of quotes you want used in your document.

Inserting non-breaking spaces

To prevent two words from being separated at the end of a line, press the Ctrl key when you type a space between the words.

Inserting non-breaking dashes

An example of a non-breaking dash is a company name such as A-Z. Obviously you would not want A- to appear at the end of a line and Z at the beginning of the next line. To solve this problem, press Shift+Ctrl+minus sign. In other words, hold down the Shift and Ctrl keys and press the minus key.

Inserting hyphens and dashes

In order to enter longer dashes, you can find under **Tools→Instant Corrections→Options** the **Replace dashes** option. This option replaces one or two minus signs under certain conditions with a long dash. For additional replacements, see the replacements table under **Tools→Instant Corrections→Replace.** Here you can, among other things, replace a shortcut automatically by a dash, even in another font.

Inserting definite separators

To support automatic hyphenation by entering a separator inside a word yourself, use the keys Ctrl+minus sign. The word is separated at this position when it is at the end of the line, even if automatic hyphenation for this paragraph is switched off.

Protecting Sheets and Cells

In IBM® Lotus® Symphony™ Spreadsheets, cell protection is activated for all cells as the default. However, it is only effective if you protect the sheet or the document. To protect the sheet or document, click **Tools→Protect Document→Sheet.** The **Protect Sheet** dialog box is displayed. Type and confirm a password, and then click **OK** to protect the sheet. It is extremely important to note that if you enter a password and then later forget it, you will have no way to deactivate the applied protection. If you merely want to protect the cells from inadvertent changes, it is better not to enter a password and just click **OK** to protect the sheet. To unprotect a sheet that has been password protected, click **Tools→Protect→Sheet** and enter the password when prompted. If no password was designated and the field was left blank when protecting the sheet, then when you are prompted for a password, do not enter one and click **OK.**

If you have specific cells in the document that you do not want to protect, for example, cells in which the user is to make entries, then prior to protecting the sheet, you should select these cells and click **Layout→Cell Protection.** In the **Cell Protection** dialog box, clear the **Protected** check box.

The **Cell Protection** dialog box also contains the **Hide formula** option, which makes the formulas invisible and protects them from changes, and the **Hide when printing** option, which displays the protected cells on-screen, but not when printed.

Activity 1-1: Format and Protect Lotus Symphony Spreadsheets

Data Files:

- TopSalesReport.ods

Scenario

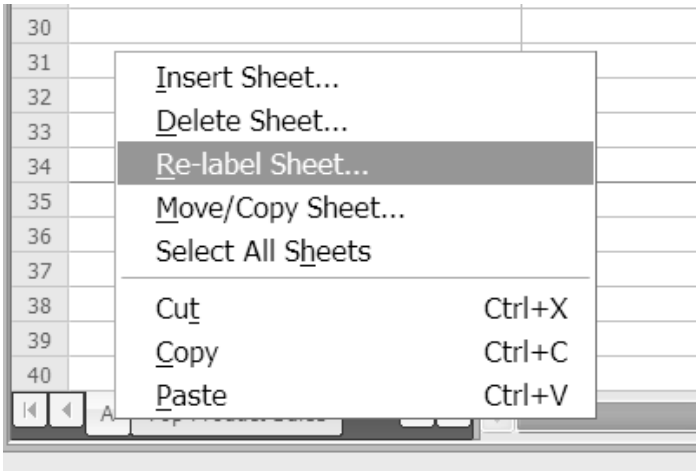
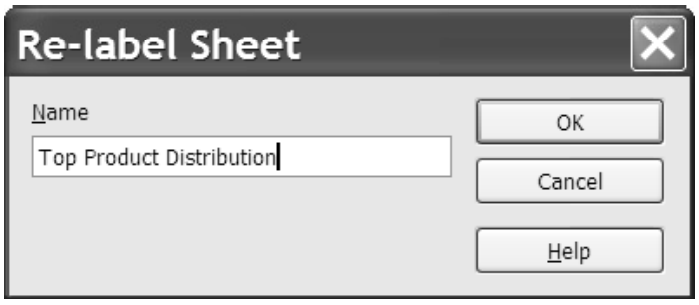
You have been asked to provide a report detailing the amount delivered for the company's top four products in each of the manufacturing locations during the month of July. You have the relevant data already in your spreadsheet, and now you want to format the spreadsheet for projection and distribution at an upcoming meeting. After some thought, you realize that some people at the meeting may want more detailed sales figures to go with the distribution numbers for these products, so you decided to add a second sheet with this information.

To complete this activity:

- Format the sheet.
- Add a new sheet.
- Copy data to the new sheet.
- Enter and format data in the new sheet.
- Password protect the sheet data.

Follow these steps to format and protect your Lotus Symphony Spreadsheet.

Step	Action
1.	Click **File→Open→File.** In the **Open** dialog box, browse to **C:\lotus_ed\Spreadsheets** and double-click the **TopSalesReport.ods** file to open it.
2.	Click **File→Page Setup.**
3.	On the **Page** tab, in the **Orientation** section, click **Landscape.** In the **Margins** section, for the **Left, Right, Top** and **Bottom** fields, type `1.0"` and click **OK.**
4.	Click **Create→Header and Footer.** Verify that the **Header** tab is active.
5.	In the **Left Area** section, type `Top Products - June Delivery`
6.	Highlight the text you just typed, and click A.
7.	In the **Text Attributes** dialog box, on the **Font** tab, in the **Size** drop-down list, click **14.** In the **Style** drop-down list, click **Bold.** In the **Font color** drop-down list, click **Blue 6** and then click **OK.**

Step	Action
8.	Verify that the **Center area** and **Right area** sections contain no text.
9.	Click the **Footer** tab.
10.	Verify that the **Center area** section contains **Page 1** and click **OK.**
11.	Select cells A1:E1 and in the **Text and Cell Properties** sidebar, in the **Cell color** drop-down list, click **Blue 5.** In the **Font color** drop-down list, click **White.**
12.	Click **Create→Sheet.**
13.	In the **Create Sheet** dialog box, select **After current sheet.**
14.	In the **Sheet** section, in the **Name** field, type `Top Product Sales` and click **OK.**
15.	Right-click the A sheet tab and click **Re-label Sheet.** 
16.	In the **Re-label Sheet** dialog box, type `Top Product Distribution` and click **OK.** 
17.	Verify that the **Top Product Distribution** sheet is active.
18.	Highlight columns **A, B,** and **C** and click **Edit→Copy.**

Step	Action
19.	Click the **Top Product Sales** sheet tab.
20.	Highlight columns **A, B,** and **C** and click **Edit→Paste.**
21.	Click the **Top Product Distribution** sheet tab.
22.	Highlight column **E** and click **Edit→Copy.**
23.	Click the **Top Product Sales** sheet tab.
24.	Highlight column **D** and click **Edit→Paste.**
25.	In cell E1, type `Unit Price`
26.	In cell F1, type `Total Sales`
27.	Enter the following in the **Unit Price** column: ● E2: `90` ● E3: `90` ● E4: `90` ● E5: `45` ● E6: `45` ● E7: `45` ● E8: `50` ● E9: `50` ● E10: `50` ● E11: `140` ● E12: `140` ● E13: `140`
28.	Select cells E2:E13 and click **Layout→Properties→Text and Cell Properties.**
29.	Click the **Numbers** tab and in the **Category** list, click **Currency.**
30.	In the **Format** list, select the red text **($1,234.00)** and click **OK.**
31.	Select cells F2:F13, and click **Layout→Properties→Text and Cell Properties.**
32.	On the **Numbers** tab, in the **Category** list, click **Currency.**

Step	Action
33.	In the **Format** list, select the red text **($1,234.00)** and click **OK.**
34.	Select cells A1:F1 and in the **Text and Cell Properties** sidebar, in the **Cell color** drop-down list, click **Blue 5.** In the **Font color** drop-down list, click **White.**
35.	Click the **Top Product Distribution** sheet tab.
36.	Click **Tools→Protect Document→Sheet.**
37.	In the **Protect Sheet** dialog box, in the **Password** field, type `passw0rd` where 0 is the numeral zero. Type the password again in the **Confirm** field. Click **OK.**
38.	Use the same password to protect the **Top Product Sales** sheet.
39.	Save the file, but do not close it. You will use it in the next lesson.

	A	B	C	D	E
1	**Product Name**	**Product Code**	**Production Location**	**Unit Price**	**Total Sales**
2	Bennington Pitcher/Basin Set	00128	Bakersfield	$90.00	
3	Bennington Pitcher/Basin Set	00128	Airsdale	$90.00	
4	Bennington Pitcher/Basin Set	00128	Lahannah	$90.00	
5	Country Classic Serving Platter	27421	Bakersfield	$45.00	
6	Country Classic Serving Platter	27421	Airsdale	$45.00	
7	Country Classic Serving Platter	27421	Lahannah	$45.00	
8	Sweetheart Vase	03451	Bakersfield	$50.00	
9	Sweetheart Vase	03451	Airsdale	$50.00	
10	Sweetheart Vase	03451	Lahannah	$50.00	
11	Heirloom Coffee/Tea Service	16238	Bakersfield	$140.00	
12	Heirloom Coffee/Tea Service	16238	Airsdale	$140.00	
13	Heirloom Coffee/Tea Service	16238	Lahannah	$140.00	

Lesson Summary

In this lesson, you specified page formatting, formatted sheets to enhance workbooks, and protected cell and sheet data. Using these tools allow you to uniquely format your spreadsheets and enhance their visual appeal.

Adding Content and Visual Elements

- **Topic A:** Entering Values and Formulas
- **Topic B:** Using Charts
- **Topic C:** Adding Graphics and Shapes

Introduction

Once you have organized data and structured it appropriately, you may still find it difficult to perform a detailed analysis, especially if the data is large and complex. IBM® Lotus® Symphony™ Spreadsheets resolves this by providing several features that allow you to present data in graphical and other logical forms. This assists you in efficiently making informed decisions.

After completing this lesson, you should be able to:

- Enter values and formulas.
- Use charts.
- Add graphics and shapes.

Topic A: Entering Values and Formulas

Manual calculation of values in spreadsheets can be cumbersome, time-consuming, and prone to errors. It is ideal to have an easier and quicker way of calculating values. In IBM® Lotus® Symphony™ Spreadsheets, you can create basic formulas to perform calculations on values in spreadsheets. Creating basic formulas will help you reduce the amount of time it takes to cull valuable information from the data you have entered into a worksheet.

Calculating with Dates and Times

A **Date and Time** function assigns a serial number to date and time data in order to use the data in a calculation. Although the data is converted to a serial number, it is displayed in the worksheet as text. **Date and Time** functions range from a function that enters the current date into a worksheet each time it is opened to a function that will calculate how much time has elapsed between a start time and an end time.

Function syntax is the general form of the function that provides the structure for entering function arguments properly to return the desired results. The syntax shows the names of the arguments, the proper order of the arguments, and whether arguments are required or optional. The syntax varies from function to function. To complete a function, you enter specific arguments and values in place of the general syntax.

Date values

The following functions convert date values to calculable numbers and back.

Value	Syntax	Description
DateSerial Function [Runtime]	DateSerial (year, month, day)	Returns a date value for a specified year, month, or day.
DateValue Function [Runtime]	DateValue [(date)]	Returns a number from a date string. The date string is a complete date in a single numeric value. You can also use this serial number to determine the difference between two dates.

Value	Syntax	Description
Day Function [Runtime]	Day (Number)	Returns a value that represents the day of the month based on a serial date number generated by DateSerial or DateValue.
Month Function [Runtime]	Month (Number)	Returns the month of a year from a serial date that is generated by the DateSerial or the DateValue function.
WeekDay Function [Runtime]	WeekDay (Number)	Returns the number corresponding to the weekday represented by a serial date number that is generated by the DateSerial or the DateValue function.
Year Function [Runtime]	Year (Number)	Returns the year from a serial date number that is generated by the DateSerial or the DateValue function.
CDateToIso Function [Runtime]	CDateToIso(Number)	Returns the date in ISO format from a serial date number that is generated by the DateSerial or the DateValue function.
CDateFromIso Function [Runtime]	CDateFromIso(String)	Returns the internal date number from a string that contains a date in ISO format.

Time values

The following functions convert time values to calculable numbers.

Value	Syntax	Description
Hour Function [Runtime]	Hour (Number)	Returns the hour from a time value that is generated by the TimeSerial or the TimeValue function.
Minute Function [Runtime]	Minute (Number)	Returns the minute of the hour that corresponds to the serial time value that is generated by the TimeSerial or the TimeValue function.
Second Function [Runtime]	Second (Number)	Returns an integer that represents the seconds of the serial time number that is generated by the TimeSerial or the TimeValue function.
TimeSerial Function [Runtime]	TimeSerial (hour, minute, second)	Calculates a serial time value for the specified hour, minute, and second parameters that are passed as numeric value. You can then use this value to calculate the difference between times.
TimeValue Function [Runtime]	TimeValue (Text As String)	Calculates a serial time value from the specified hour, minute, and second, parameters passed as strings, that represents the time in a single numeric value. This value can be used to calculate the difference between times.

Calculating Time Differences

If you want to calculate time differences, use the following formula: =(B2<A2)+B2-A2. The later time is B2 and the earlier time is A2. In the formula, an entire 24-hour day has a value of 1 and one hour has a value of 1/24. The logical value in parentheses is 0 or 1, corresponding to 0 or 24 hours. The result returned by the formula is automatically issued in time format due to the sequence of the operands. For example, if you want to know the time difference between 22:45 and 3:20 in the same day, the applied formula would be =(3:20<22:45)+3:20-22:45 and result would be 4:35 or 4 hours and 35 minutes.

Entering Fractions

Fractional numbers can be entered in a cell and used for calculations. For example, if you enter `1/5` in a cell and press Enter, the Formula bar will display the value 0.2, but the cell will display 1/5. The 0.2 value is used for calculations.

For common fractions, such as 1/2, 1/4, and 3/4, the **Instant Correct** function will replace them with corresponding fraction symbols like ½. In order to disable this option, click **Tools**→**Instant Corrections**→**Options** tab, and clear the **Replace 1/2... with** ½ check box.

By default, multi-digit fractions will be converted to the most appropriate two-digit fraction. For example, 4/16 will be converted to 1/4. If you want to view multi-digit fractions, you must change the cell format to the multi-digit fraction view. Click **Layout**→**Properties**→**Text and Cell Properties**→ **Numbers** tab. In the **Category** list, verify that **Fraction** is selected, and in the **Format** list, click **-1234 10/81** and then click **OK.**

Entering a Number with Leading Zeros

By default, numbers that begin with zero will have the zero suppressed after you enter them in a cell. If you want to have the zeros display in your data, when you enter the number put an apostrophe before it. This will indicate that you want the number to be formatted as text. However, because you have entered the number as text, you cannot use the number in calculations. If you want to apply a numerical format to a column of numbers in text format, select the column currently configured to text number format. Click **Layout**→**Properties**→**Text and Cell Properties**→**Numbers** tab. In the **Category** list, verify that **Fraction** is selected and click **OK.** Click **Edit**→**Find and Replace.** In the **Search for** dialog box, type `^[0-9]` and in the **Replace with** dialog box, type `&`. Select **Regular expressions** and **Current selection only** and then click **Replace All.**

Applying Sort Lists

Lotus Symphony Spreadsheets has a **Sort List** feature that allows you to type one piece of information in a cell, then drag it to fill in a consecutive list of items. For example, enter the text `Sunday` or `Sun` in an empty cell. Select the cell and click the mouse on the lower-right corner of the cell border. Then drag the selected cell a few cells to the right or downward. When you release the mouse button, the highlighted cells will be filled with the names of the weekdays. You can view the predefined series available for Sort Lists by clicking **File**→**Preferences**→**IBM Lotus Symphony**→**Lotus Symphony Spreadsheets**→**Sort Lists.** You can also create your own custom lists to include in this feature, such as list of your company's office locations.

The following table shows a single-level sort in ascending order.

Unsorted List

	A	B
1	Bill	Due Date
2	Car insurance	4/21
3	Student loan	4/5
4	Gas	4/11
5	Water	4/12
6	Car loan	4/15
7	Cable	4/15
8	Electric	4/20
9	Credit card	4/29
10	Phone	4/30
11	Mortgage	4/3

Ascending Numerical Sort

	A	B
1	Bill	Due Date
2	Mortgage	4/3
3	Student loan	4/5
4	Gas	4/11
5	Water	4/12
6	Car loan	4/15
7	Cable	4/15
8	Electric	4/20
9	Car insurance	4/21
10	Credit card	4/29
11	Phone	4/30

Low

High

Figure 2-1: ***Single-level sort in ascending order***

Applying Filters

Filters allow you to display only certain data that complies with your criteria. Lotus Symphony Spreadsheets includes three kinds of filters: instant filter, standard filter, and special filter. The instant filter filters the records based on the content of the currently selected data field. You can use the standard filter to connect up to three conditions with either a logical AND or a logical OR operator. The special filter exceeds the three condition limitation and allows up to a total of eight filter conditions. With special filters, you enter the conditions directly into the sheet. Each of the filters can be accessed by clicking **Manipulate→Filter** and selecting one of the filter options.

The following figure shows the **Standard Filter** dialog box.

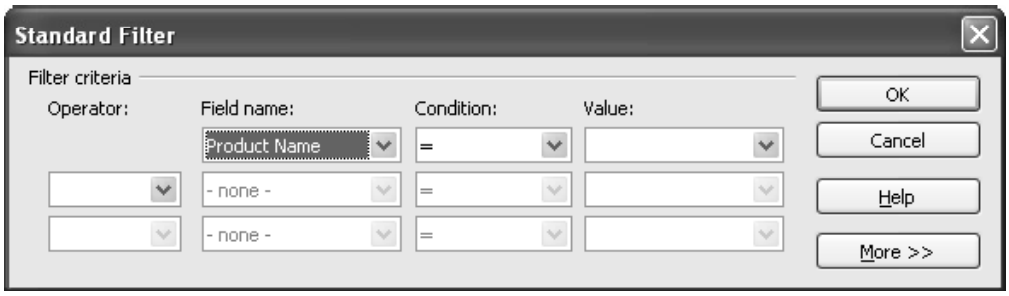
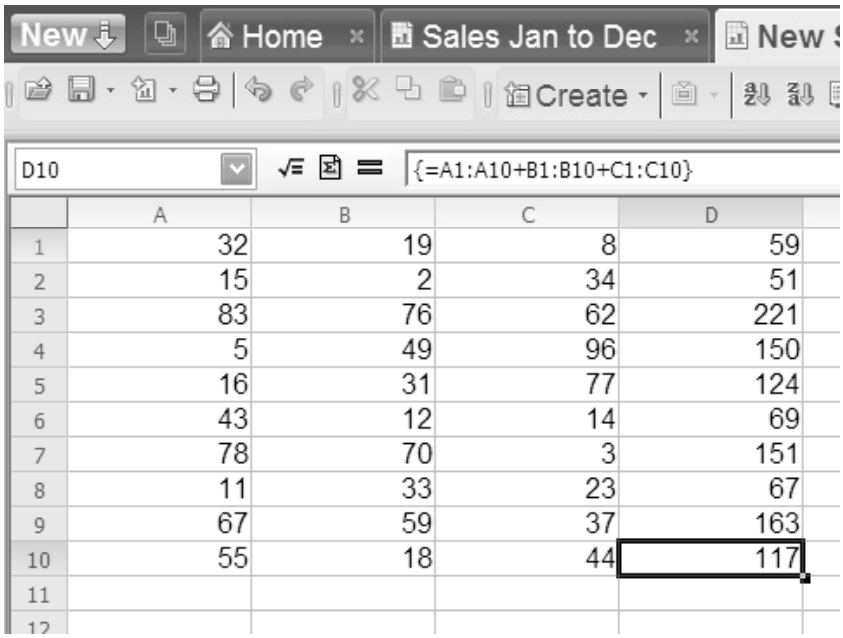


Figure 2-2: ***The Standard Filter dialog box***

Entering Matrix Formulas

A **Matrix formula** uses matrix operations and returns a result that can be a matrix, a vector, or a scalar, depending on the computations involved. Whatever the result may be, an area on the spreadsheet of precisely the correct size must be selected before the formula is typed in (otherwise you will either lose some of the answer or get additional and possibly confusing information). The following example explains how to enter a Matrix formula in Lotus Symphony Spreadsheets. Assume you have entered 10 numbers in Columns A, B, and C (A1:A10, B1:B10, and C1:C10), and you would like to calculate the sum of each row in Column D. Using the mouse, select the range D1:D10. Then, in the Formula bar, type = and then select cells A1:A10, which contain the first values for the sum formula. In the Formula bar, at the end of the formula text, type + and then select cells B1:B10. In the Formula bar, at the end of the formula text, type + and then select cells C1:C10. Next, press Shift+Ctrl+Enter. The matrix area is automatically protected against modifications, such as deleting rows or columns; however, it is possible to edit any formatting, such as the cell background.

The following figure shows an example of a Matrix formula.



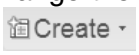
	A	B	C	D
1	32	19	8	59
2	15	2	34	51
3	83	76	62	221
4	5	49	96	150
5	16	31	77	124
6	43	12	14	69
7	78	70	3	151
8	11	33	23	67
9	67	59	37	163
10	55	18	44	117
11				

Figure 2-3: ***Example of a Matrix formula***

Topic B: Using Charts

Sometimes, when you look at a large amount of data, the rows of numbers can seem endless. This complicated display of data makes it difficult to draw any meaningful conclusions. When you use a chart, however, you can consolidate data into a visual format that is easily understandable. By looking at the information graphically, you can quickly compare the data and assimilate information you would not have noticed otherwise.

Creating a Chart

A **chart** is a visual representation of data from source data in a spreadsheet or a table that displays the relationship between the different sections of the data. Each set of values that is represented in the chart is called a **chart data series.** Charts can include a chart title, a legend that explains what the different colors represent, a scale or values on the vertical axis, and a category on the horizontal axis. There are different chart types, such as pie, bar, and column charts. You can choose the chart type that best represents the data you want to display. A chart can be embedded as a graphic object on a worksheet page, or it can appear on a dedicated chart sheet that contains only the chart and associated chart tools and commands. When the chart is embedded in the same document as the data, it stays linked to the data, so that the chart automatically updates when you change the source data. To create a chart, click **Create→Chart** or click the 

icon on the main toolbar. Define the area of values that you want to include in your chart:

- **Range:** Enter the area of the table containing the data that you want to include in your chart. You can also drag to select the cell range.
- **First row as caption:** Uses the entries in the top row of the selection as labels for the data range.
- **First column as caption:** Uses the entries in the left column of the selection as labels for the data range.

The following figure shows the **Chart Setup** dialog box.

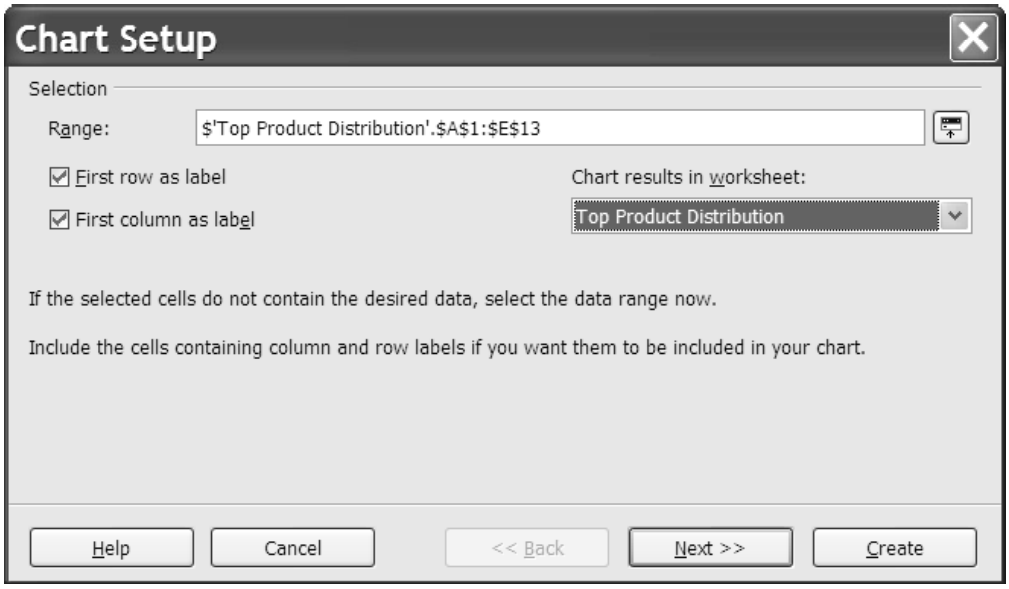


Figure 2-4: ***The Chart Setup dialog box***

Then, click **Next.** The **Chart Style** dialog box is displayed. Here you select the chart type and the data series the chart should use: columns or rows. The following figure shows the first page of the **Chart Style** dialog box.

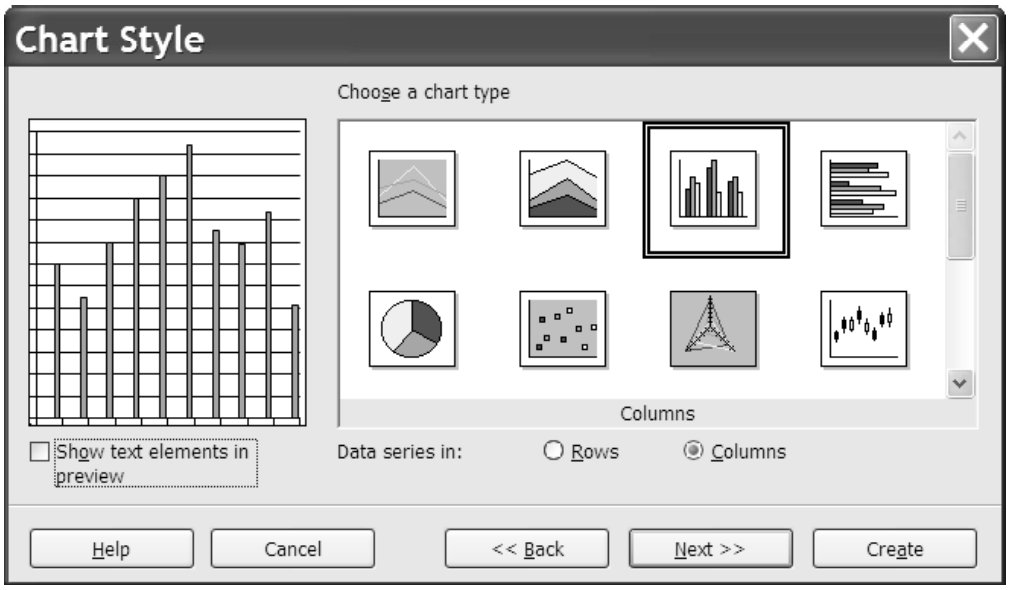


Figure 2-5: ***The Chart Style dialog box, page 1***

Then, click **Next.** Next, choose a display variant for the type of chart you previously selected, and select **Grid lines** and **Data series in** options. The following figure shows the second page of the **Chart Style** dialog box.

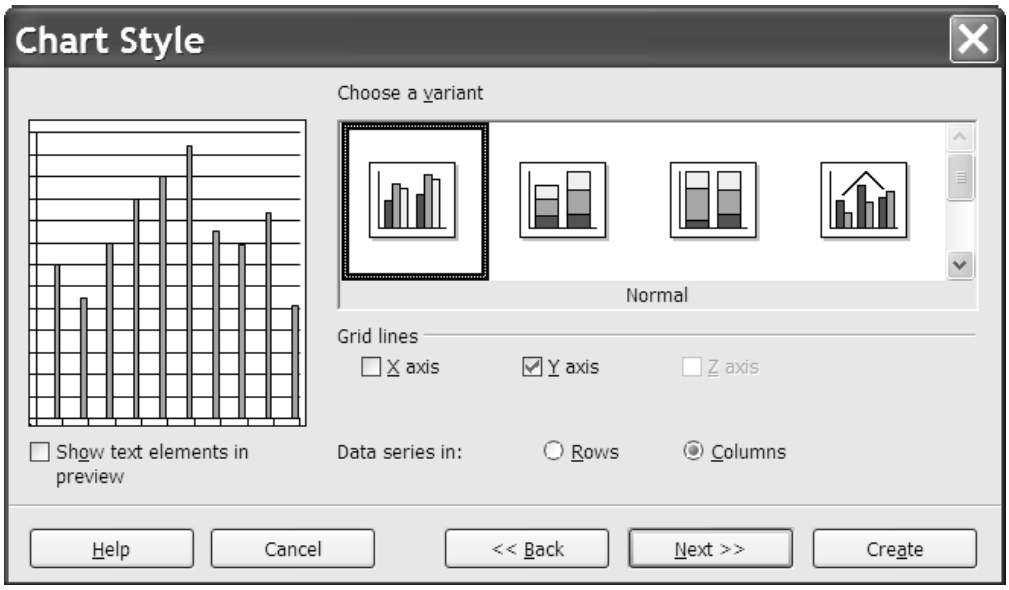


Figure 2-6: ***The Chart Style dialog box, page 2***

Click **Next.** On this final screen, type a title for the chart and the axis. If you want a chart legend to display, select **Legend.** Click **Create** to create the chart. The following figure shows the third page of the **Chart Style** dialog box.

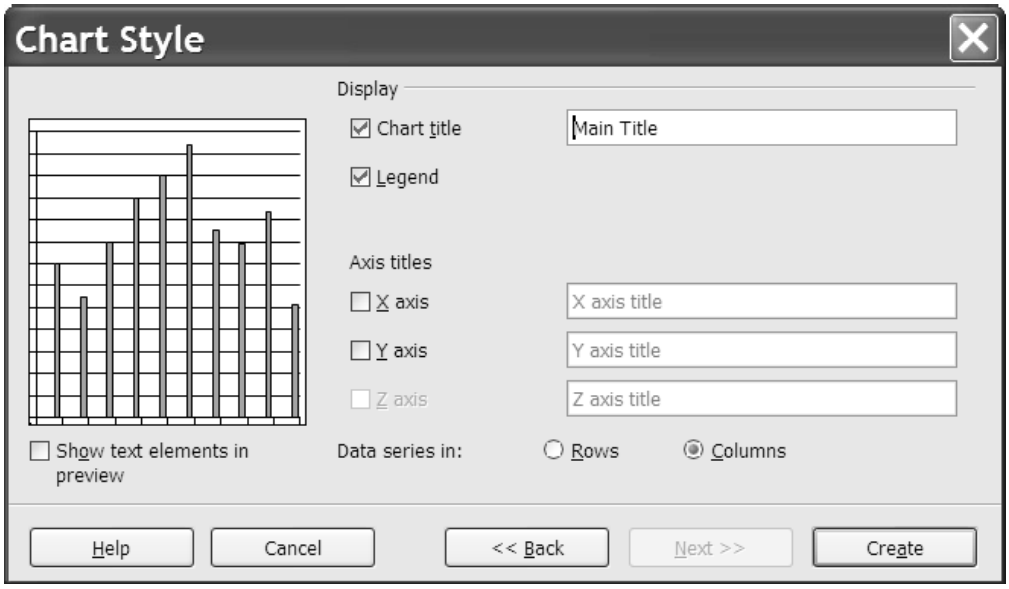


Figure 2-7: ***The Chart Style dialog box, page 3***

Formatting Charts

After your chart is created, you can change the appearance of individual chart elements by using the **Chart Area** and **Chart Wall** dialog boxes. For example, you can change the color of chart columns or the chart background. The **chart wall** is the background behind the chart data, for example, the gridline area of a bar chart. The chart area is the background of the entire chart. To access the **Chart Wall** dialog box, double-click the chart data section of the chart, or click **Layout→Chart Wall.** To access the **Chart Area** dialog box, double-click the outer chart area, or click **Layout→ Chart Area.** Both the **Chart Area** and **Chart Wall** dialog boxes provide the same options:

- **Lines:** Set the line formatting options for the selected area.
- **Area:** Set the fill options for the selected drawing object.
- **Transparency:** Set the transparency options for the fill that you apply to the selected object.

The following figure shows a formatted chart.

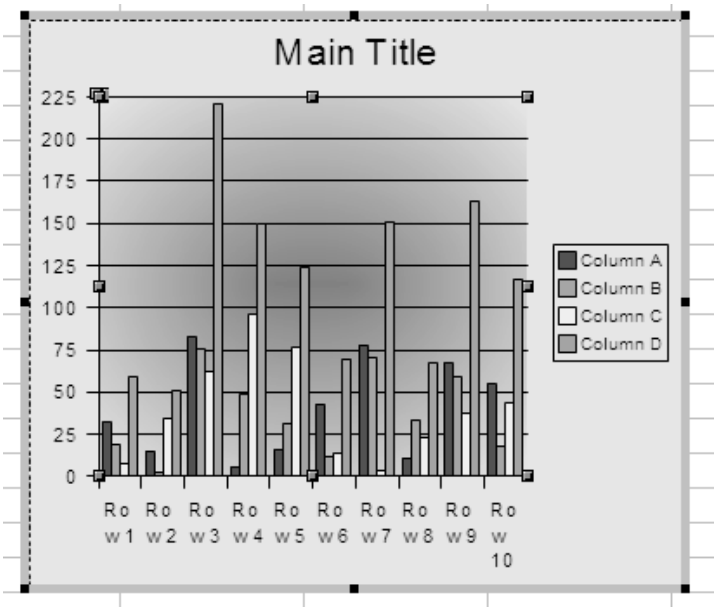


Figure 2-8: ***A formatted chart***

Modifying a Chart's Display

The **Chart Object** toolbar provides access to common chart commands. The following table describes the commands.

Toolbar icon	Description
	**Title On/Off** is used to show or hide the title and sub-title.
	**Legend On/Off** is used to show or hide a legend.
	**AxesTitle On/Off** is used to show or hide the axis labels.
	**Show/Hide Axis Descriptions** switches the labeling of all axes on or off.
	**Horizontal Grid On/Off** toggles the visibility of the grid display for the x-axis.
	**Vertical Grid On/Off** toggles the visibility of the grid display for the y-axis.
	**Edit Chart Type** displays the **Chart Type** dialog box and allows you to change the type of chart the data is displayed in.
	**Chart Style** displays the **Chart Style** dialog box and allows you to change the style of the chart.
	**Chart Data** displays the **Chart Data** dialog box, where you can edit the chart data.

Using a Lotus Symphony Spreadsheet Chart in a Lotus Symphony Document

You can insert a copy of an IBM® Lotus® Symphony™ Spreadsheet chart in an IBM® Lotus® Symphony™ Document by opening the document you want the chart to be copied to and opening the spreadsheet that contains the chart. Then in the spreadsheet, click the chart. Eight handles should display. Drag the chart from the spreadsheet to the document. You can resize and move the chart in Lotus Symphony Documents like you would any other object. To edit the chart data, double-click the chart.

Note: A Lotus Symphony Spreadsheets chart copied into a Lotus Symphony Document is no longer connected to the source data. The chart in the document will not be updated when you modify the original chart data in the spreadsheet.

Topic C: Adding Graphics and Shapes

When you use graphic elements in a spreadsheet, you can draw attention to specific areas of the spreadsheet and enhance the look of your spreadsheet with corporate logos and other graphic elements.

Adding a Graphic from the Gallery

The **Gallery** provides you with a collection of default images that you can insert into your document. To insert a graphic from the **Gallery** into your spreadsheet, click **Tools**→**Gallery** to display the **Gallery** Click a theme to view the related objects, and then right-click an object and click **Insert**→ **Copy.**

Adding a graphic to the Gallery

You can also add a new graphic to the **Gallery** by dragging it. Click **Tools**→ **Gallery,** click the theme to which you want to add the graphic, and then click and drag the graphic to the **Gallery.**

Adding a Graphic from a File

When you want to insert a graphic from a file, click **Create**→**Graphic from File.** In the **Create Graphics** dialog box, navigate to and select the graphic file you want to insert. The **Files of type** field allows you to restrict the selection to certain file types.

Select the **Link** check box if you want a link to the original file. When **Link** is selected, if the document is updated and loaded, then the graphic image is reloaded. The editing steps that you have carried out in the local copy of the image in the document are re-applied and the image is displayed. When **Link** is cleared, you are always working with the copy that was created when the graphic was first inserted.

To embed graphics that were first inserted as links, click **Edit**→**Manage Links.** In the **Manage Links** dialog box, select the file you want to embed, and then click **Break Link.** A warning will display asking you to confirm your choice. Click **Yes,** and then click **Close.**

The Graphic Properties Sidebar

The **Graphic Properties** sidebar allows you to modify the size, position, and base point of the selected graphic. The following figure shows the **Graphic Properties** sidebar.

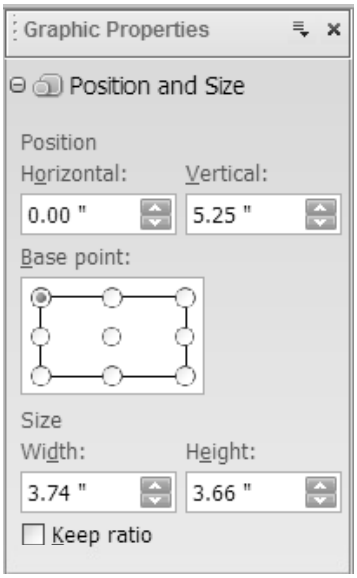


Figure 2-9: ***The Graphic Properties sidebar***

Click the **More Graphic Properties** button to display the **Graphic Properties** dialog box, which contains options for:

- **Position and Size:** Contains options for size, position, and protection.
- **Rotation:** Contains options for rotation angle and pivot point.
- **Slant & Corner Radius:** Contains options for slant angle and corner radius.
- **Graphics:** Contains options for color correction, luminance, graphics mode, and image filter.
- **Crop:** Contains options for scaling and cropping.
- **Alternative text:** Allows you to enter alternative image and description text for the selected graphic.

The Drawing Toolbar

IBM® Lotus® Symphony™ Spreadsheets allows you to add objects, shapes, and lines to your spreadsheet. The **Drawing** toolbar allows you quick access to these drawing functions. Click **View**→**Toolbars**→**Drawing** to display the **Drawing** toolbar at the top of your document. The **Drawing** toolbar contains the options described in the following table.

Icon	Description
	**Select:** Lets you select objects in the current document. To select an object, click the object with the arrow. To select more than one object, drag a selection frame around the objects. To add an object to a selection, press Shift, and then click the object.
	**Rectangle Quickshape:** Draws a rectangle where you drag in the current document. Click where you want to place a corner of the rectangle, and drag to the size you want. You can resize a rectangle by dragging one of the handles of the rectangle. To draw a square, hold down Shift while you drag.
	**Ellipse Quickshape:** Draws an oval where you drag in the current document. Click where you want to draw the oval, and drag to the size you want. To draw a circle, hold down Shift while you drag.
	**3-D Quickshapes:** Provides several different shapes in 3-D format: cube, sphere, cylinder, cone, pyramid, torus, shell, and half-sphere. Select the 3-D shape type from the drop-down list. Then click where you want to draw the object and drag to the size you want.
	**Lines:** Draws a straight line where you drag in the current document. To constrain the line to 45 degrees, hold down Shift while you drag.
	Arrows: Draws an arrow where you drag in the current document. You can select the arrow head and direction. To constrain the line to 45 degrees, hold down Shift while you drag the arrow in the direction it should point.
	**Connectors:** Draws a connector with one or more 90-degree angle bends. Click a connection point on an object, drag to a connection point on another object, and then release.
	**Basic Shapes:** Provides many shape options. Click the shape type in the drop-down list. Then click where you want to draw the object and drag to the size you want.
	**Block Arrows:** Provides many block arrow options. Click the arrow type in the drop-down list. Then click where you want to draw the object and drag to the size you want.

Icon	Description
	**Flow Charts:** Provides many shape options for flow charts. Click the shape type in the drop-down list. Then click where you want to draw the object and drag to the size you want. To add text to the shape, double-click it.
	**Stars and Symbols:** Provides many symbol options. Select the symbol type from the drop-down list. Then click where you want to draw the object and drag to the size you want.
	**Callouts:** Draws a line that ends in a rectangular callout with horizontal text direction from where you drag in the current document. Drag a handle of the callout to resize the callout. To add text, click the edge of the callout, and then type or paste your text. To change a rectangular callout to a rounded callout, drag the largest corner handle when the pointer changes to a hand.
	**Fontwork:** Activates the **Fontwork** dialog box that allows you to insert font work into your spreadsheet.
	**Extrusion:** Renders drawing objects with extrusion effects that look like 3-D effects.
	**Text Box:** Draws a text box with horizontal text direction where you drag in the current document. Drag a text box to the size you want anywhere in the document, and then type or paste your text.

Activity 2-1: Add Content and Visual Elements

Before you begin:

If necessary, open the **TopSalesReport.ods** file.

Scenario

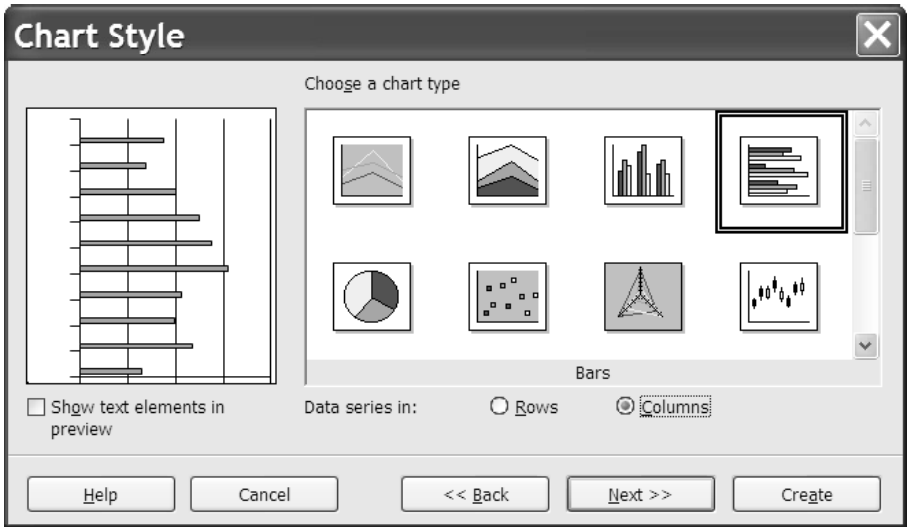
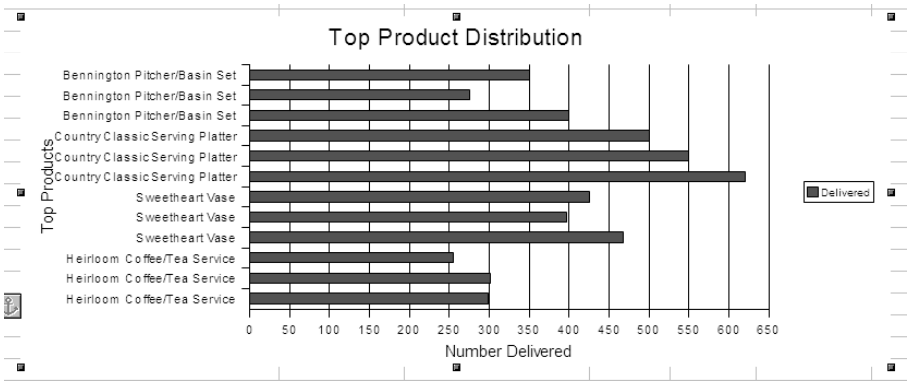
You are finalizing your sales report and decide to use a matrix formula to calculate totals for some of your data. You also want to add some visual enhancements to make the report more interesting.

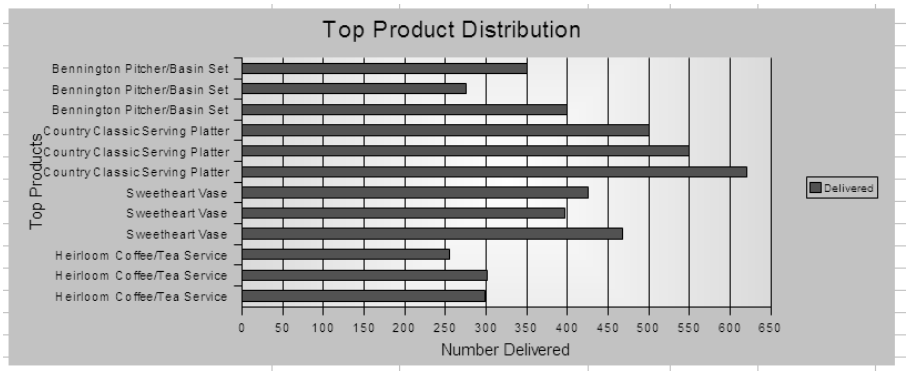
To complete this activity:

- Add and copy a formula.
- Insert a chart.

Follow these steps to add content and visual elements to your spreadsheet.

Step	Action
1.	Click the **Top Product Sales** sheet tab.
2.	Click cell F2 and type `=sum(D2*E2)`
3.	Select cell F2 and click **Edit→Copy.**
4.	Select cells F3:F13 and click **Edit→Paste.**
5.	Click the **Top Product Distribution** sheet tab.
6.	Since this sheet was previously protect, you must unprotect it before you can make any changes. Click **Tools→Protect Document→Sheet.** In the **Unprotect Sheet** dialog box, type `passw0rd` and click **OK.**
7.	Select cells A1:A13, press and hold Ctrl while selecting cells E1:E13.
8.	Click **Create→Chart.**
9.	The cell ranges you already selected will be displayed in the **Range** field. Verify that the **First row as label** and **First column as label** check boxes are selected. Click **Next.**

Step	Action
10.	In the **Choose a chart type** section, select the **Bars** chart type, and click **Next.** 
11.	In the **Choose a variant** section, leave the default selected and click **Next.**
12.	In the **Display** section, in the **Chart title** field, type `Top Product Distribution`
13.	In the **Axis titles** section, select **X axis** and **Y axis.** In the **X axis** field, type `Top Products` and in the **Y axis** field, type `Number Delivered`
14.	Click **Create.**
15.	Click and drag one of the left margin boxes on the chart until the x-axis data labels are fully visible. 
16.	Double-click in the outer chart background to open the **Chart Area** dialog box.

Step	Action
17.	On the **Area** tab, in the **Fill** section, select **Color,** and then click **Blue 8.** Click **OK.**
18.	Double-click in the chart data area to open the **Chart Wall** dialog box.
19.	On the **Area** tab, in the **Fill** section, select **Gradient,** and then click **Square yellow/white.** Click **OK.** 
20.	Select cell G2 and click **Create→Graphic from File.**
21.	In the **Create Graphics** dialog box, browse to **C:\lotus_ed\Spreadsheets** and click the **wwcorplogo.png** file, and then click **Open.** The WWCorp logo is now displayed in the spreadsheet. 
22.	Save and close the file.

Lesson Summary

In this lesson, you entered formulas and explored various formula options. You used spreadsheet data to create charts and enhanced the look of your spreadsheet by adding graphics and shapes.

Follow-up

In this course, you formatted sheets and used formula tools. You also enhanced your spreadsheets with graphics and created charts so the data can be analyzed. When you use one of these components, your workbook will appear more professional and it will be more useful for other individuals. When you combine these components, your workbook becomes a tool for analysis and collaboration with other individuals.

What's Next?

After completing the *Using IBM® Lotus® Symphony™ Spreadsheets: Beyond Basics* course, you may want to continue with the *Using IBM® Lotus® Symphony™ Spreadsheets: Power User* course.

Also available are:

- *Using IBM® Lotus® Symphony™ Spreadsheets: Basics*
- *Using IBM® Lotus® Symphony™ Documents: Basics*
- *Using IBM® Lotus® Symphony™ Documents: Beyond Basics*
- *Using IBM® Lotus® Symphony™ Documents: Power User*
- *Using IBM® Lotus® Symphony™ Presentations: Basics*
- *Using IBM® Lotus® Symphony™ Presentations: Beyond Basics*
- *Using IBM® Lotus® Symphony™ Presentations: Power User*

Finally, information about the Lotus Symphony product is available at the Lotus Symphony Web site, which is at http://symphony.lotus.com/software/lotus/symphony/home.nsf/home.

Appendix A

Additional Resources

The following additional resources are available for more information on Lotus Symphony Spreadsheets:

- Tour: http://symphony.lotus.com/idcontents/pdf/N8T40/start_n8t40.htm
- Demo: http://symphony.lotus.com/software/lotus/symphony/help.nsf/DemoForSpreadSheets
- Tutorial: http://symphony.lotus.com/idcontents/tutorial/en/spreadsheets_tutorial/start_spreadsheets.htm
- Toolbar Reference Card: http://symphony.lotus.com/idcontents/refcard/en/n8r40_refcarddita-pdf-minimal.pdf
- Keyboard Reference Card: http://symphony.lotus.com/idcontents/refcard/en/n8r40_shortcutdita-pdf-minimal.pdf

As they are developed, other resources may be added to this location: http://symphony.lotus.com/software/lotus/symphony/help.nsf/home.

Available Plug-Ins

Extend the value of Lotus Symphony with plug-ins from IBM, partners, and developers. A complete list of all available plug-ins can be found here: http://symphony.lotus.com/software/lotus/symphony/plugin.nsf/home

Glossary

arguments
The data provided to the function to run the calculations.

ascending order
A sort order that displays data from lowest to highest.

axis
In charts displaying multiple data series, the x axis shows the data series in each category, and the y axis shows how the data is measured.

chart title
A chart item that describes what the overall chart represents.

chart
A visual representation of spreadsheet data that determines the relationship between different sections of the data.

data labels
A chart item that indicates a numeric value, the percentage, or the name of a single data point.

data series
An individual set of values represented in a chart.

descending order
A sort order that displays data from highest to lowest.

filter
A method of viewing data that shows only the data that meets a criterion.

footer
A text block that print at the bottom of each page.

formula
A set of mathematical instructions that can be used to perform calculations in spreadsheets.

function name
The abbreviated name of a function.

gallery
A respository for elements of the same category that acts as a central location for accessing the various styles and appearance settings for any one object.

graphic object
A visual element that can be inserted into a worksheet.

gridline
A chart item that indicates increments of a value.

header
A text block that prints at the top of each page.

hyperlink
A link within a document that provides quick access to related information, called the hyperlink target.

margin
A margin determines the amount of space between the spreadsheet data and the end of the paper.

shapes
Simple geometric objects that are precreated by Lotus Symphony and can be modified and used to enhance your spreadsheet.

sort
A method of viewing data that arranges all the data into a specific order.

style
A named collection of formatting options that you can apply as a group.

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