Using IBM® Lotus® Symphony™ Spreadsheets: Basics

Student Guide

Using IBM® Lotus® Symphony™ Spreadsheets: Basics

Part Number: Y1300
Course Edition: 1.0

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About This Course

With IBM® Lotus® Symphony™ Spreadsheets, you can perform standard and advanced spreadsheet functions to calculate, analyze, and manage your data. Lotus Symphony Spreadsheets' clean, simple interface will allow you to utilize standard conventions for presenting data and calculations in rows and columns.

Course Description

Target Student

This course is designed for IBM® Lotus® Symphony™ end users who will use these materials to learn the basic tasks associated with the Lotus Symphony Spreadsheet 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:

- Explore Lotus Symphony Spreadsheets.
- Format and print a Lotus Symphony Spreadsheet.

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
Sales July to Dec	Sales July to Dec - BasicL2.ods	Spreadsheet to 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.**
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 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.
	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.

Introducing IBM® Lotus® Symphony™ Spreadsheets

- **Topic A:** Getting Started with IBM® Lotus® Symphony™ Spreadsheets
- **Topic B:** Adding Content to A Spreadsheet

Introduction

Imagine using a computer without having a basic understanding of its components and how it operates. Similarly, using a software application, such as IBM® Lotus® Symphony™ Spreadsheets, without understanding its basic components would be difficult. Exploring the Lotus Symphony Spreadsheets environment will introduce you to some of its basic tools and functions, which will help you get started with Lotus Symphony Spreadsheets.

After completing this lesson, you should be able to:

- Explore the Lotus Symphony Spreadsheets interface.
- Add content to a spreadsheet.

Topic A: Getting Started with IBM® Lotus® Symphony™ Spreadsheets

It would be easier for you to perform in a new job if you received an overview of how to work in your new environment. Similarly, exploring IBM® Lotus® Symphony™ Spreadsheet's user interface will help you to familiarize yourself with some of its basic functions, which, in turn, will help you use the application effectively.

What is Lotus Symphony Spreadsheets?

Lotus Symphony Spreadsheets is a spreadsheet application that allows you to calculate, analyze, and manage your data. With Lotus Symphony Spreadsheets, you can create, edit, share, and save a variety of spreadsheets. You can create new documents, import existing documents, or choose from a set of document templates.

The Lotus Symphony Spreadsheets Interface

When you select **Create a new Spreadsheet** from the Lotus Symphony Home page, a new Lotus Symphony Spreadsheet file is opened for you. The interface is simple and intuitive, and it contains the same standard options as most spreadsheet editors.

Interface element	Description
Menu bar	High-level set of menus from which you can perform any function available in Lotus Symphony Spreadsheets.
Tab bar	Region that shows all files currently open in Lotus Symphony. Each tab represents an open file.
Content window	Main region of the document that contains all text, tables, and diagrams that you have created.
Properties sidebar	Side pane of text and formatting properties that is readily available while you are creating your document.
Status bar	Bar along the bottom of the window that provides document information such as the page number, cursor position, magnification level, and the status of various text editing modes.

The following figure shows and describes the different parts of the Lotus Symphony Spreadsheets interface.

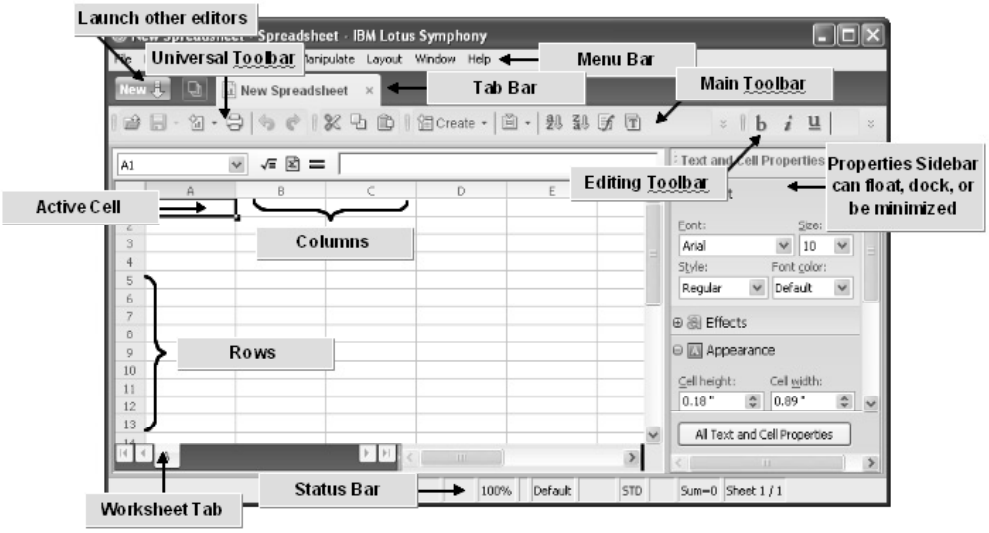


Figure 1-1: ***The Lotus Symphony Spreadsheets interface***

The Properties Sidebar

The most notable user interface element of Lotus Symphony Spreadsheets is the **Properties** sidebar, which is displayed to the right of the spreadsheet you are creating. In some programs, formatting features may be hidden in menus and hard to find. However, in Lotus Symphony, these formatting properties are always easily accessible as you create your spreadsheet.

The contents of the Properties sidebar are context-sensitive, meaning that the contents will change depending on whether you are modifying text, a chart, or a graphic. The type of properties displayed for the current context can be changed by clicking the pop-up menu in the heading of the sidebar.

The following figure shows the Properties sidebar.

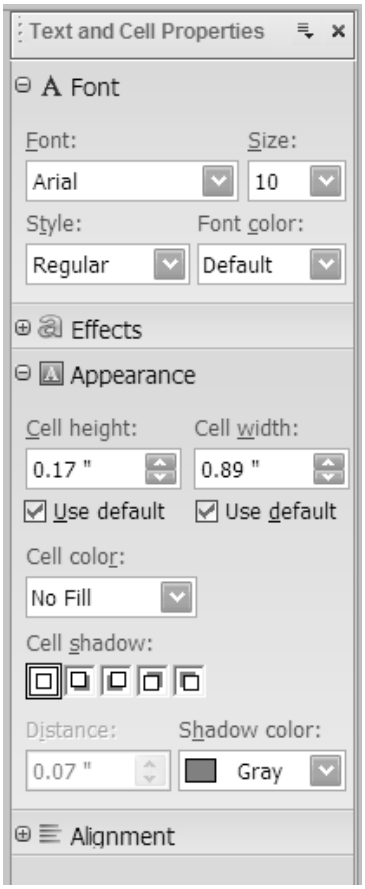


Figure 1-2: ***The Properties sidebar***

Examining Preferences

In addition to the properties available on the Properties sidebar, there are global properties that you can modify for Lotus Symphony Spreadsheets. In the main menu bar, click **File→Preferences** to open the **Preferences** dialog box. Expand **IBM Lotus Symphony,** if necessary, and then expand **Lotus Symphony Spreadsheets.** The following figure illustrates the available preferences.

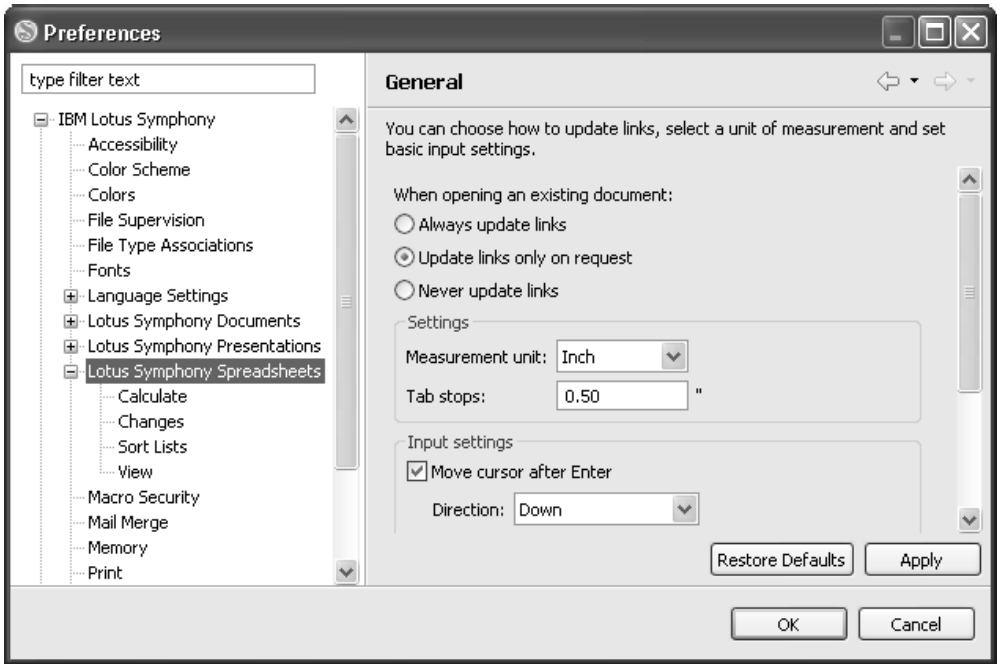


Figure 1-3: ***The Preferences dialog box***

Nested within the Lotus Symphony Spreadsheets node in the navigation pane, you can click any of these categories to adjust the preferences to your needs.

Category	Preferences to Set
General (Lotus Symphony Spreadsheets)	Options for updating links when opening an existing document, tab stops, and cursor behavior when pressing Enter.
Calculate	Optional for iterative references, calculations, and decimal places.
Changes	Options for assigning colors to inserted text, deleted text, and moved contents.
Sort Lists	Displays all sort lists currently defined, and allows you to create additional ones.

Category	Preferences to Set
View	Page display options such as cells, grid lines, formulas, and selection handles; window display options such as headers, scroll bars, tabs, and outline symbols, and show/hide settings for objects, charts, and graphics.

Creating a Spreadsheet

Creating a new spreadsheet in Lotus Symphony is very simple. From the Lotus Symphony Home page, click **Create a new Spreadsheet.** If you are already working within a Lotus Symphony editor, you can either click **File→ New** or click the **New** button and select **Lotus Symphony Spreadsheet.**

Creating a Spreadsheet from a Template

Templates are an excellent way to standardize spreadsheets that need to have the same formatting, and the Template Organizer within Lotus Symphony allows you to collect and organize all your templates for documents, spreadsheets, or presentations in one location. To use a spreadsheet template, click **File→New→From Template→Spreadsheet.**

Note: You cannot use a spreadsheet template if you have not imported any into the Template Organizer. The default template library in Lotus Symphony contains only presentation templates.

Opening an Existing Spreadsheet

To open an existing spreadsheet in Lotus Symphony Spreadsheets, click **File→Open,** and then navigate to the location where the file is located, select it, and click **Open.** Lotus Symphony Spreadsheets will open Microsoft® Excel®, OpenDocument, and OpenOffice file types.

Saving a Spreadsheet

Once a spreadsheet has been created, you will need to save it so that you can access it again at a later time. Use the **Save As** option to save a file for the first time, and also to save an existing file with a new name, to change the file type, or to save it in a new directory. Use the **Save** option to save changes made to an existing spreadsheet without changing its name, type, or directory. Both the **Save** and **Save As** options are located on the **File** menu. The default file type for saving a spreadsheet in Lotus Symphony Spreadsheets is OpenDocument (.ods), but you can also choose to save a spreadsheet file as OpenOffice or Microsoft Excel file types.

Topic B: Adding Content to A Spreadsheet

In order to write a book, a writer has to fill the pages with words. Similarly, to create informative workbooks in IBM® Lotus® Symphony™ Spreadsheets, you need to enter data into worksheets. There are many ways to organize your data, but a structure with column and row headings makes it much easier to identify the information.

Enter Data

When you are entering data, cells can contain text, numbers, or formulas. In a spreadsheet, text is used to organize and label the numerical information. By default, text is left aligned in the cell and numbers are right aligned.

Insert and Edit Notes

Adding notes to cells in Lotus Symphony Spreadsheets allows you to retain reminders for missing information, descriptions of cell contents, or other pertinent information. You can insert a note for any cell by clicking **Create→ Note.** A yellow text box will display with an arrow indicating which cell the box is attached to. Within this text box you can type your notes. Once you move away from this cell, the yellow text box is hidden and its existence indicated by a tiny red square in the upper-right corner of the cell to which it belongs.

The following figure shows cell notes in columns D and E.

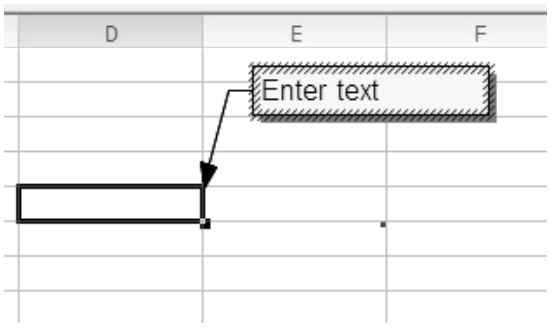


Figure 1-4: ***Cell notes***

Rotating Text

One of the ways you can customize your content is by manipulating the text direction and alignment. Text that is aligned horizontally or vertically can be rotated at a specified angle to provide a unique display. To rotate text, select the cells whose text you want to rotate. Click **Layout→Properties→Text and Cells Properties.** Or, you can click the **All Text and Cell Properties**

button on the Properties sidebar. In the **Text and Cell Properties** dialog box, click the **Alignment** tab. In the **Text direction** section, enter the rotation angle for the text. A positive number will rotate the text to the left and a negative number will rotate text to the right. You can also specify the text direction, horizontal or vertical, on the **Alignment** tab. Click **OK** to enable your changes.

The following figure shows the rotation options on the **Alignment** tab of the **Text and Cell Properties** dialog box.

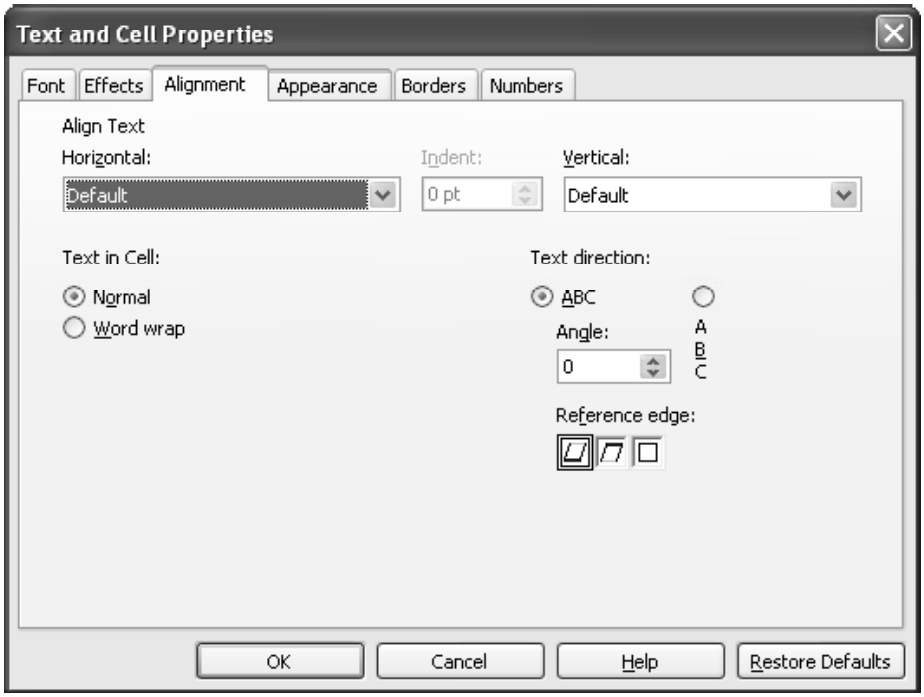


Figure 1-5: ***The rotation options on the Alignment tab of the Text and Cell Properties dialog box***

Writing Multi-line Text

There are times when you will want to be sure all of the text you enter in a cell is visible, even if the length of the text is greater than the width of the cell. To format the text to include a line break at the right border of the cell, select all the cells where you want the text to break at the right border. Then, click **Layout→Properties→Text and Cells Properties.** Click the **Alignment** tab, and under the **Text in Cell** section, select **Word wrap,** and then click **OK.**

Inserting Special Characters

The **Special Characters** function allows you to insert special characters, such as check marks, boxes, and other symbols, into your text. To access special characters, click **Create→Special Characters.** In the **Special Characters** dialog box, you can view and select from all available characters. Select the desired character and click **OK** to insert it in the currently active cell of your spreadsheet.

Formatting Text

The **Text and Cell Properties** sidebar provides options to change the font and font size, to choose a font style and color, and to add effects to text. The following figure shows the **Text and Cell Properties** sidebar.

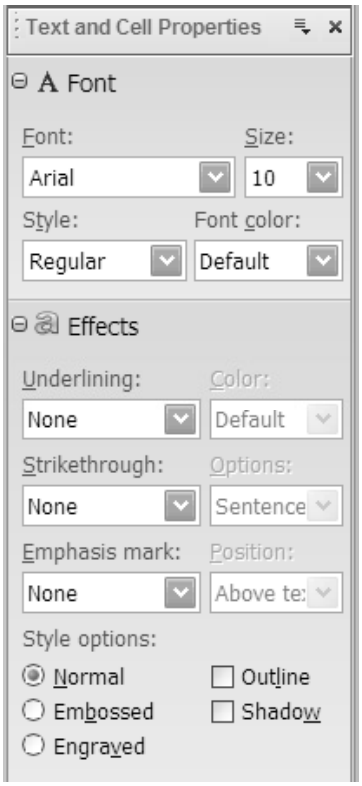


Figure 1-6: ***The Text and Cell Properties sidebar***

Displaying Formulas or Values

When viewing data in a spreadsheet, you can choose to have formulas display in cells or the results of the formula. If you want to display the formulas in the cells, click **File→Preferences→IBM Lotus Symphony→Lotus Symphony Spreadsheets→View.** In the **Page Display** section, select **Formulas** and click **OK.** If you want to view the calculation results instead of the formula, do not select the **Formulas** check box or clear it if necessary.

The following figure shows the view preferences for Lotus Symphony Spreadsheets.

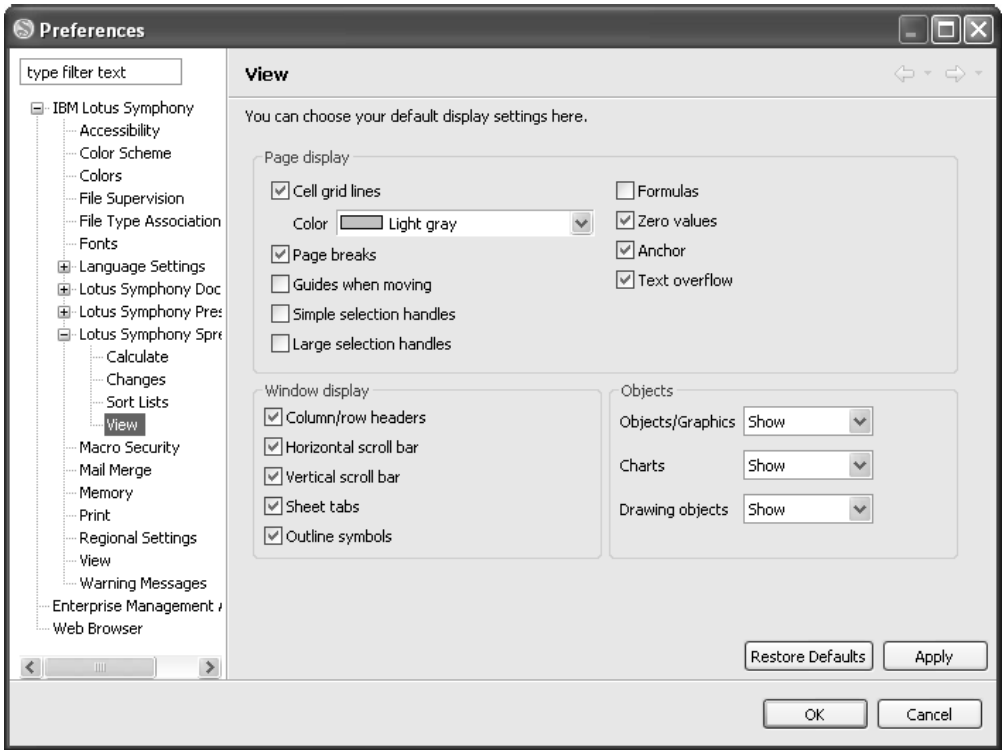


Figure 1-7: ***View preferences for Lotus Symphony Spreadsheets***

The Formula Bar

The **Formula bar** is one of the most important tools you will use when working with spreadsheets. The Formula bar is used for entering and editing formulas. You can choose to hide or show the Formula bar by clicking **View→Formula Input Line.** If a check mark is displayed next to **Formula Input Line,** then the Formula bar will be displayed. If the Formula bar is hidden, you can still edit cells selecting the cell you want to edit and pressing F2 to activate edit mode. After editing cells, accept the changes by pressing Enter, or discard entries by pressing Esc. Esc is also used to exit the edit mode.

The following figure shows the Formula bar.

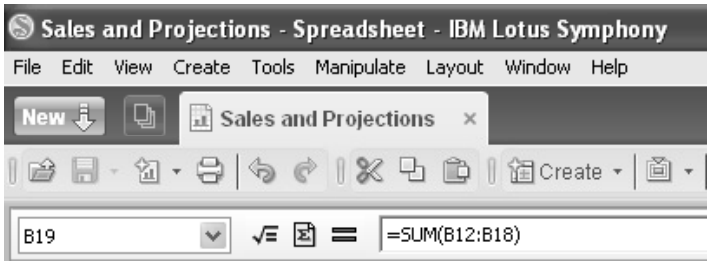


Figure 1-8: ***The Formula bar***

Copying Formulas

When you copy a formula, Lotus Symphony Spreadsheets automatically adjusts the formula to represent the new location. For example, if cell C24 contains the formula =sum(C4:C22) and you copy it to cell E24, the formula would automatically adjust to =sum(E4:E22). The following table lists the ways to copy a formula.

Method	Description
Menu option	Select the cell you wish to copy. Click **Edit→Copy.** Then select the cell into which you want to copy the data, and click **Edit→Paste.**
Right-click option	Right-click the cell you wish to copy and click **Copy.** Then right-click the cell into which you want to copy the data and click **Paste.**
Keyboard short-cut	Select the cell you wish to copy. Press Ctrl+ C to copy it. Then select the cell into which you want to copy the data, and press Ctrl+V to paste it.

Filling Cells Instantly

Lotus Symphony Spreadsheets includes fill options that allow you to automatically fill cells with either duplicate or sequential content. To automatically fill cells with duplicate data, click **Edit→Fill** and select one of the following options:

- **Up:** Fills a selected range of at least two rows with the contents of the bottom-most cell.
- **Down:** Fills a selected range of at least two rows with the contents of the top-most cell.
- **Right:** Fills a selected range of at least two columns with the contents of the left-most cell.
- **Left:** Fills a selected range of at least two columns with the contents of the right-most cell.

To automatically generate sequence, select the cell range whose existing contents you want to extend to more cells. Click **Edit→Fill→Sequence.** In the **Fill Sequence** dialog box, select the **Direction** you want to fill cells and then select a **Sequence Type** for the cell content. If you select **Date,** then you will also need to specify a **Time Unit.**

The following figure shows the **Fill Sequence** dialog box.

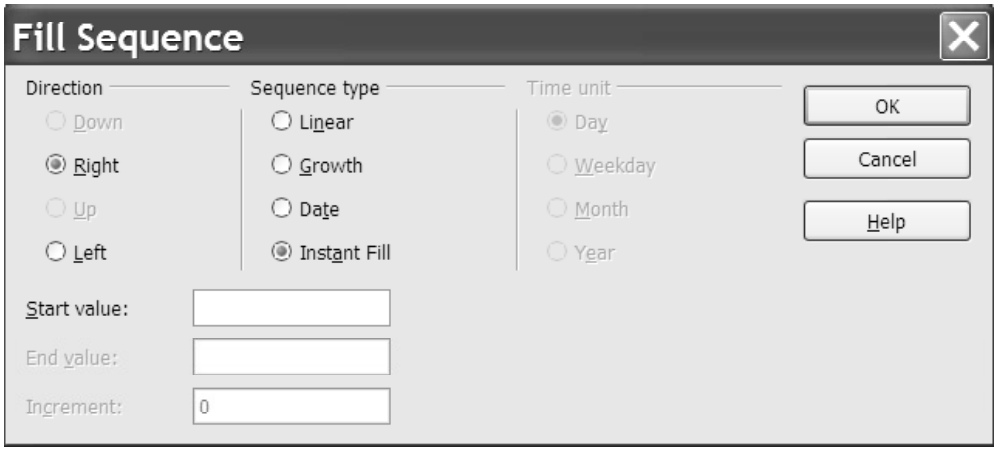


Figure 1-9: ***Fill Sequence dialog box***

Automatic fill

To automatically increment data as you enter content down a column or across a row, using the mouse, select the cell range whose existing contents you want to extend to more cells. Release the mouse button. Move the mouse pointer on top of the automatic fill handle in the lower right of the selected cell until the cursor turns into a target cross. Click and hold down the left mouse button on the automatic fill handle, and drag in the desired direction of the fill, selecting all the cells you want to contain data.

Automatic fill only increments data that Lotus Symphony Spreadsheets recognizes, such as numbers, dates, and cell references. If Lotus Symphony Spreadsheets does not recognize data, automatic fill duplicates the data exactly.

Calculating in Lotus Spreadsheets

A **formula** is a set of mathematical instructions that can be used to perform calculations in spreadsheets. All formulas begin with an equal sign (=). Formulas contain various components, and a single formula can contain some or all of these components:

- **References:** Identify a cell or a range of cells on a worksheet and refers to the location of the values or data on which you need to apply the formula for calculation.
- **Operators:** Symbols that specify the kind of calculation needed to be performed on the components of a formula.
- **Constants:** Numbers or text values that do not change in the formula. If this value has to change, the formula itself has to be changed.
- **Functions:** Predefined formulas used to simplify complex calculations.

Common mathematical operators used in formulas are:

- Plus sign (+): Used for addition.
- Minus sign (–): Used for subtraction.
- Asterisk (*): Used for multiplication.
- Forward slash (/): Used for division.
- Caret symbol (^): Used for exponents.
- Open and close parentheses ( ): Used for grouping computation instructions.

The order of operations

When you use formulas to perform calculations, you need to know the sequence of computations that formulas follow to arrive at the desired result. This order of operations can affect the return value of a formula. When a combination of operators are used, formulas are executed in the following order:

1. Computations enclosed in parentheses, wherever they appear in the formula.
2. Computations involving exponents.
3. Computations involving multiplication and division. Because they are equal with regard to the order in which Lotus Symphony Spreadsheets performs them, the operation is performed in the order in which it encounters them, which is from left to right.
4. Computations involving addition and subtraction. Lotus Symphony Spreadsheets also performs them in the order in which it encounters them.

The following figure shows the order of operations in a formula.

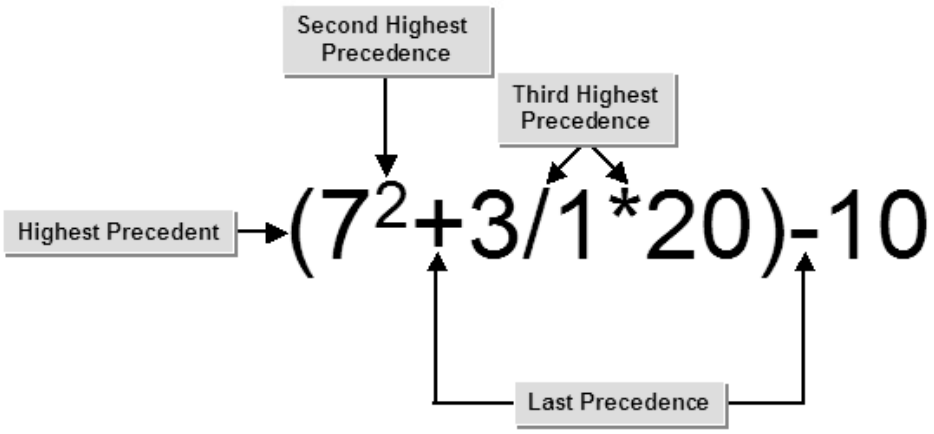


Figure 1-10: ***The order of operations in a formula***

Activity 1-1: Get Started with Lotus Symphony Spreadsheets

Scenario

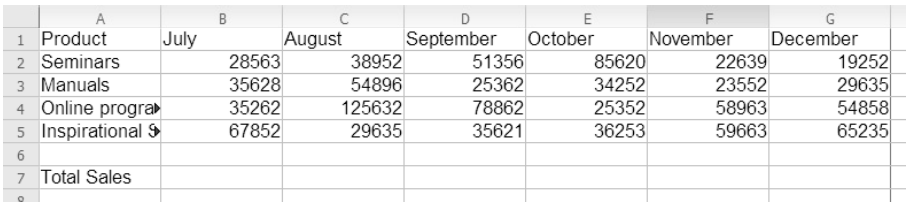
You need to document the company's sales information for the second half of the year in a spreadsheet.

To complete this activity:

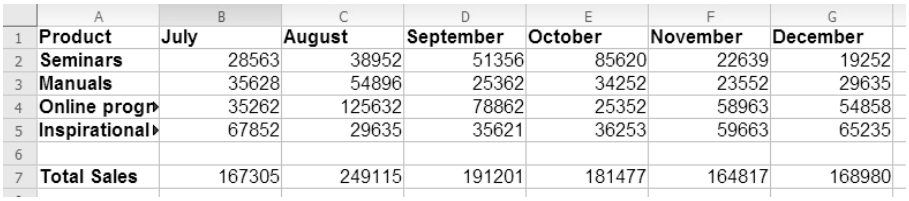
- Create a new spreadsheet.
- Enter the spreadsheet data.
- Enter and copy a formula.
- Save the spreadsheet.

Follow these steps to get started with Lotus Symphony Spreadsheets.

Step	Action
1.	Double-click the **IBM Lotus Symphony** icon and then on the Lotus Symphony home page, click **Create a new Spreadsheet.**
2.	Verify that cell A1 is selected, type `Product` and press Tab.
3.	In cell B1, type `July` and press Enter.
4.	Hover the mouse pointer over the bottom-right corner of cell B1, and click and drag to select cells C1:G1. This will fill the cells with the month names **August** through **December.** 
5.	Select cell A2, type `Seminars` and press Enter.
6.	In cell A3, type `Manuals` and press Enter.
7.	In cell A4, type `Online programs` and press Enter.
8.	In cell A5, type `Inspirational Speeches` and press Enter.
9.	Select cell A7, type `Total Sales` and press Enter.

Step	Action
10.	Enter the sales values for **Seminars:** ● July: `28563` ● August: `38952` ● September: `51356` ● October: `85620` ● November: `22639` ● December: `19252`
11.	Enter the sales values for **Manuals:** ● July: `35628` ● August: `54896` ● September: `25362` ● October: `34252` ● November: `23552` ● December: `29635`
12.	Enter the sales values for **Online programs:** ● July: `35262` ● August: `125632` ● September: `78862` ● October: `25352` ● November: `58963` ● December: `54858`
13.	Enter the sales values for **Inspirational Speeches:** ● July: `67852` ● August: `29635` ● September: `35621` ● October: `36253` ● November: `59663` ● December: `65235`
14.	Verify your content with the following graphic. 

	A	B	C	D	E	F	G
1	Product	July	August	September	October	November	December
2	Seminars	28563	38952	51356	85620	22639	19252
3	Manuals	35628	54896	25362	34252	23552	29635
4	Online progra	35262	125632	78862	25352	58963	54858
5	Inspirational S	67852	29635	35621	36253	59663	65235
6							
7	Total Sales						

Step	Action
15.	Select row 1. In the **Text and Cell Properties** sidebar, in the **Font** section, in the **Style** drop-down list, click **Bold.**
16.	Select column A. In the **Text and Cell Properties** sidebar, in the **Font** section, in the **Style** drop-down list, click **Bold.**
17.	In cell B7, type `=sum(B2:B5)` and press Enter.
18.	Select cell B7 and click **Edit→Copy.**
19.	Select cells C7:G7 and click **Edit→Paste** to paste the formula into the other columns. 
20.	Click **File→Save.** In the **Save As** dialog box, in the **File name** field, type `Sales July to Dec` and click **Save.** **Note:** Leave the file open; you will use it in the next lesson.

	A	B	C	D	E	F	G
1	**Product**	**July**	**August**	**September**	**October**	**November**	**December**
2	**Seminars**	28563	38952	51356	85620	22639	19252
3	**Manuals**	35628	54896	25362	34252	23552	29635
4	**Online progr**	35262	125632	78862	25352	58963	54858
5	**Inspirational**	67852	29635	35621	36253	59663	65235
6							
7	**Total Sales**	167305	249115	191201	181477	164817	168980

Lesson Summary

In this lesson, you explored the Lotus Symphony Spreadsheets environment and entered data into a spreadsheet. Familiarizing yourself with the Lotus Symphony Spreadsheets environment and basic formula options will help you get started using the application with ease.

Formatting and Printing an IBM® Lotus® Symphony™ Spreadsheet

- **Topic A:** Formatting Cells
- **Topic B:** Formatting Numbers
- **Topic C:** Printing a Spreadsheet

Introduction

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

After completing this lesson, you should be able to:

- Format cells.
- Format numbers.
- Print a spreadsheet.

Topic A: Formatting Cells

Imagine you have created an expense statement workbook for the current year. You have forgotten to add the company executive's travel expenses to the workbook. Rather than creating a new workbook to include the new data, you can insert columns, rows, or cells and modify the worksheet. By inserting and deleting cells, columns, and rows, you can modify the layout of a single workbook rather than create a new workbook every time your data requirements change.

Inserting and Deleting Rows, Columns, and Cells

You can reorganize your spreadsheet at any time by inserting or deleting columns or rows. New rows are added above the selected rows. New columns are added to the left of the selected columns. Any formulas in the spreadsheet are automatically updated to reflect their new location. To insert rows or columns, select the row or column next to which you want the new one added. Click **Create→Columns** or **Create→Rows.** To delete a row or column, simply highlight the row or column and click **Edit→Delete Cells.**

Selecting Multiple Cells

To select cells in a range, you can simply highlight the range with the mouse, or you can select the first cell, and press and hold Shift, while using the arrow keys to select the other cells in the range. To select various dispersed cells, select the first cell using the mouse, then press and hold Ctrl while using the mouse to select the other cells.

Merging and Splitting Cells

The cell merge options in IBM® Lotus® Symphony™ Spreadsheets allow you to merge cells across columns and rows and also to split cells that have been merged. To merge cells, select the cells you want to merge, and then click **Layout→Merge Cells→Merge.** The merged cell receives the name of the first cell of the original cell range. Merged cells cannot be merged a second time with other cells. The range must form a rectangle; multiple selection is not supported. To split cells that have already been merged, select the currently merged cells, and then click **Layout→Merge Cells→ Split.**

Cell Borders

Border options are used to apply borders to cells. Lotus Symphony Spreadsheets provides you with options to apply a border to some or all the sides of a cell or a range of cells. You can access border options by clicking **Layout→Properties→Text and Cell Properties,** and then clicking the **Borders** tab.

The following figure shows the border options.

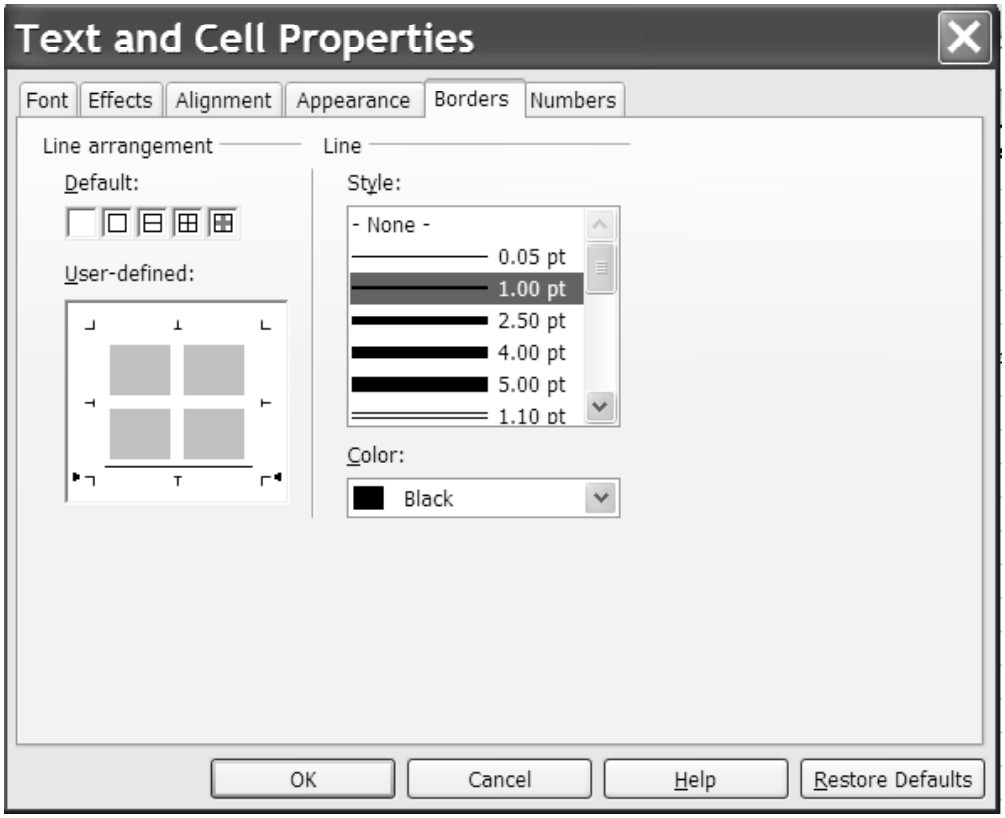


Figure 2-1: ***Border options***

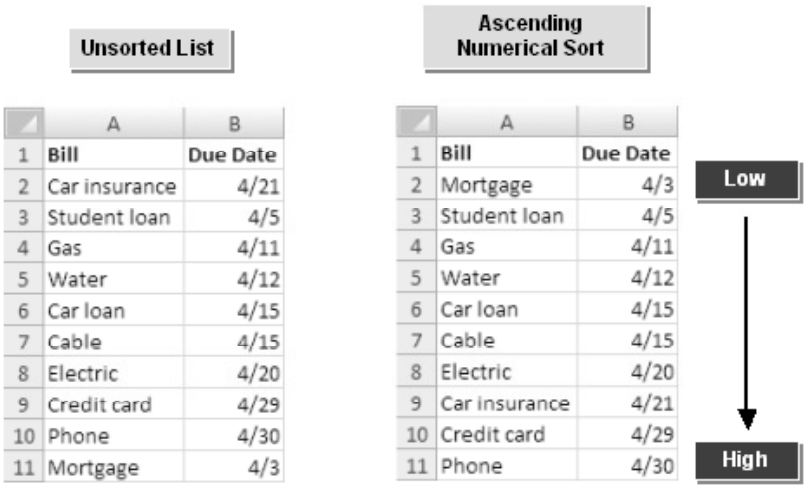
Changing Row Height or Column Width

You can adjust column width and row height in Lotus Symphony Spreadsheets using a couple of methods:

- Using the mouse: In the row or column header area, click the separator line between two rows or columns. When you see the mouse pointer change from an arrow to a cross indicator, press and hold the left mouse button and drag the separator line to the width or height desired.
- Using the **Row Height or Column Width** dialog box: Click **Layout→ Row Height** or **Layout→Column Width.** In the dialog box, specify the row height or column width desired and then click **OK.**

Sorting Data

A sort is a method of viewing data that arranges all the data into a specific order. Data can be sorted in either ascending order or descending order, based on numeric or alphabetic information. Data can be sorted on a single criterion or multiple criteria. You can sort data within tables or within ordinary worksheet data ranges.



	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

	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

Figure 2-2: ***Sample data sorted in ascending order***

To sort data in a Lotus Symphony Spreadsheet, click **Manipulate→Sort.** In the **Sort** dialog box, select which data to sort by in which order. Click **OK** to activate the sort.

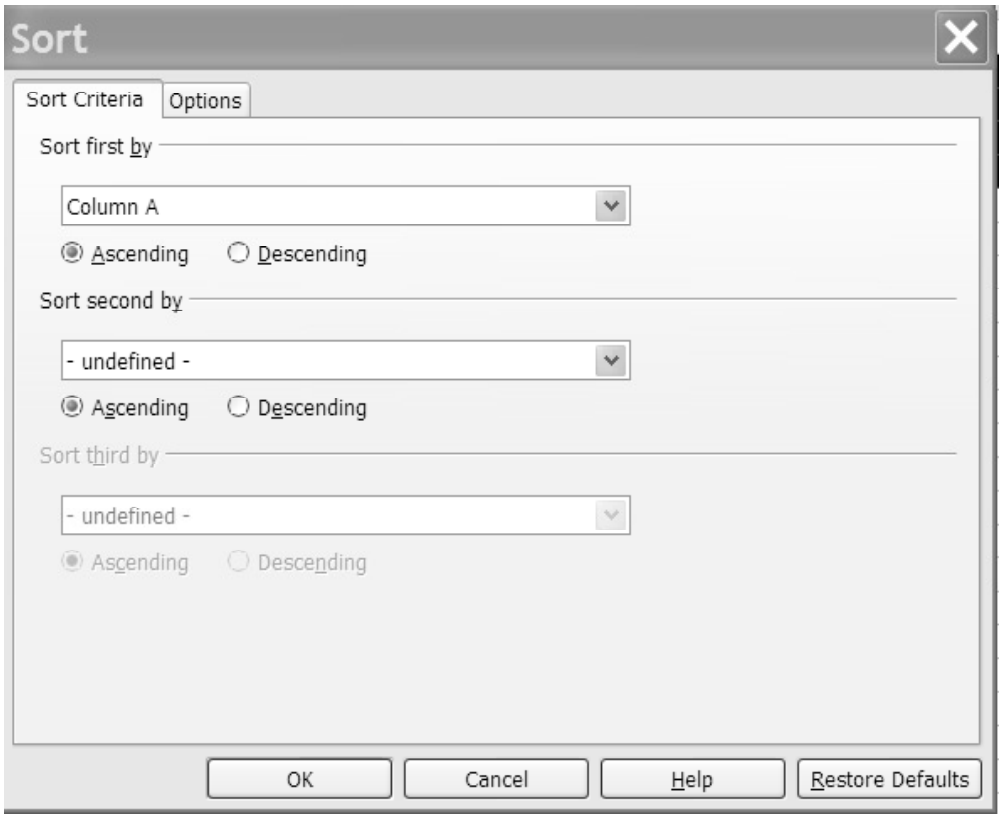


Figure 2-3: ***The Sort dialog box***

Topic B: Formatting Numbers

You have an inventory worksheet that has a column for value of the stock. Rather than manually entering a dollar sign ($) when you enter the stock value, you can apply a number format to this column so that the entered number is displayed in currency format. Applying number formats changes the appearance of numeric data, making it easier to identify the type of data within cells.

Numbers with Decimals

In IBM® Lotus® Symphony™ Spreadsheets, no default decimal number formatting is configured. To format numbers with decimals, select the cells you want to modify, click **Layout→Properties→Text and Cells Properties,** and click the **Numbers** tab. In the **Options** section, specify the number of decimal spaces you wish to display and click **OK.** If you wish to permanently apply the decimal number formatting to any spreadsheet you create, click **File→Preferences→IBM Lotus Symphony→Lotus Symphony Spreadsheets→Calculate.** Specify the number of decimal spaces you wish to display and click **OK.**

Number Formats

A **number format** is a data format that changes the appearance of the numerical data in a cell. Each number format applies specialized formatting on the data. Only the appearance of the data in a cell changes, not the data itself. You can apply a number format to a cell or a range of cells before or after you type in the numerical data. Number formats applied can vary according to the type of data, such as currency, date, or time.

The following figure shows number formats.

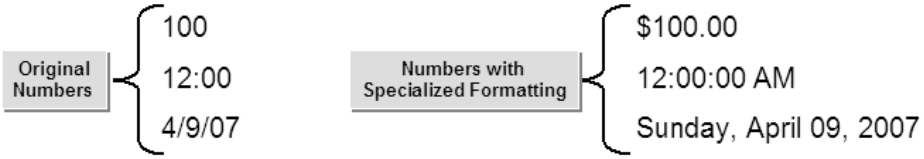


Figure 2-4: ***Number formats***

Lotus Symphony Spreadsheets' pre-installed number formats come in a variety of categories. They can be accessed from the **Number** tab of the **Text and Cell Properties** dialog box. The following table describes the number format categories and what they are used for.

Number format category	Used for
General	Default number formatting applied when you type a number. No decimals are displayed.
User Defined	Modifying a copy of an existing number format code to create a custom number format.
Number	Displaying numbers. You can specify the number of decimal places and the way the negative numbers need to be displayed.
Percentage	Multiplying the cell value by 100 and displaying the result with a percent symbol.
Currency	Displaying monetary values. The default currency symbol with numbers will be displayed.
Date	Displaying date and time serial numbers as date values. The type and the language setting that you want can be specified to display date and time in other language formats.
Time	Displaying date and time serial numbers as time values. The type and the language setting that you want can be specified to display the date and time in other language formats.
Scientific	Displaying a number in exponential notation.
Fraction	Displaying a number as a fraction, according to the type of fraction that you specify.
Boolean Value	Displaying a number as a postal code (zip code), phone number, or Social Security number.
Text	Treating the content of a cell as text. Even when numbers are typed, this will display the content exactly as you type it. Use if leading zeros are necessary, as in an employee number.

Formatting Numbers as Text

Usually text is used in spreadsheets to label and organize data. However, there are also times when you need to have numbers recognized as text, such as zip codes or phone numbers. When numbers are formatted as text, they cannot be used in calculations or formulas. If you have already entered numeral numbers in cells and have afterwards changed the format of the

cells to text, the numbers will remain numerals. They will not be converted. Only numbers entered afterwards, or numbers which are then edited, will become text numbers. If you decide to enter a number directly as text, enter an apostrophe (') first. For example, for zip codes in column headings, you can enter `'13626`, `'14472`, and `'13219`. The apostrophe is not visible in the cell; it only indicates that the entry is to be recognized as a text. This is useful if you enter text numbers that begins with a zero (0), because a zero (0) at the start of a sequence of digits is removed in numeral number formats.

Using Rounded Off Numbers

To use rounded off numbers in your spreadsheet calculations instead of exact values, click **File→Preferences→IBM Lotus Symphony→Lotus Symphony Spreadsheets→Calculate.** In the **Calculate options** section, select **Precision as shown** click **OK.**

The following figure shows the options available in the **Calculate options** section.

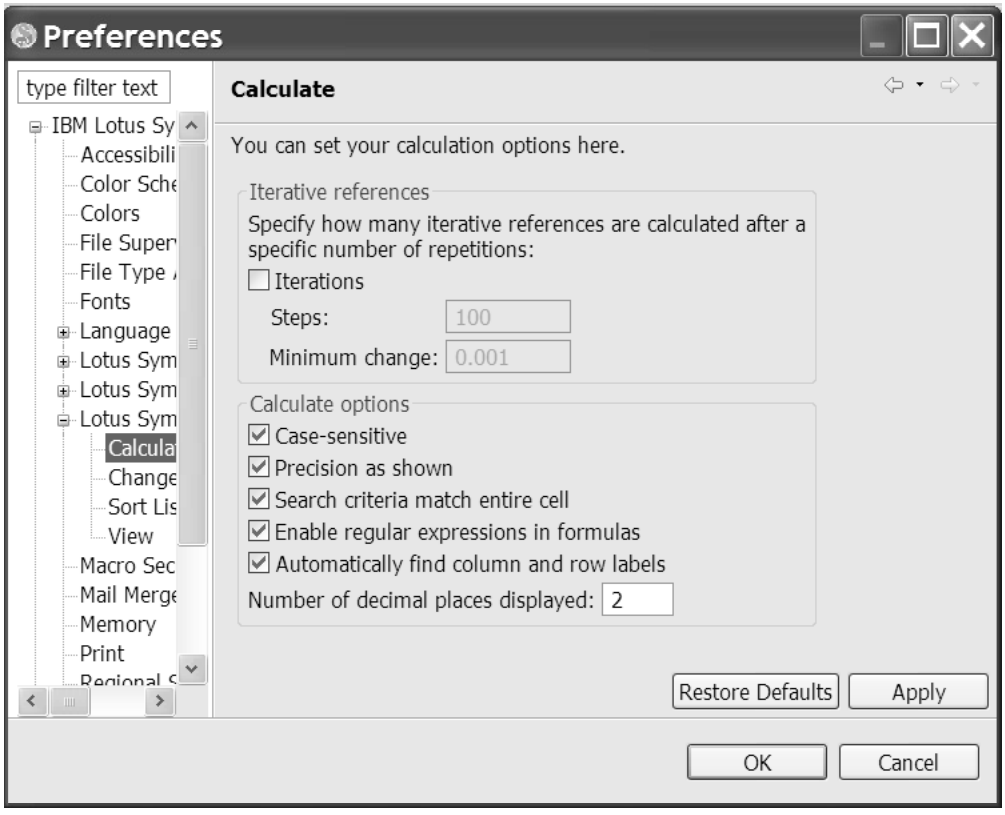


Figure 2-5: ***Precision as shown option***

Highlighting Negative Numbers

You can format cells with a number format that highlights negative numbers in red, or you can define your own number format in which negative numbers are highlighted in other colors. To use the default highlight color of red, select the cells, click **Layout→Properties→Text and Cells Properties,** and then click the **Numbers** tab. After you have chosen a number format, in the **Options** section, select **Negative numbers red** and click **OK.**

The cell number format is defined in two parts. The format for positive numbers and zero is defined in front of the semicolon; after the semicolon the formula for negative numbers is defined. You can change the code (RED) under **Format code.** For example, instead of **RED,** enter `YELLOW`. If the new code appears in the list after clicking the **Add** icon, this is a valid entry.

The following figure shows the default format code for highlighting negative numbers in red.

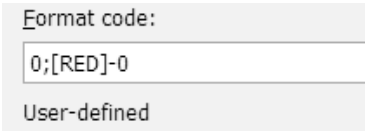


Figure 2-6: ***Default format code for highlighting negative numbers in red***

Changing Currency Format for Cells

Lotus Symphony Spreadsheets allows you to apply any currency format to numbers. By default, when you select the currency number format, the cell is given the default currency format set by the locale. This can cause problems when you are calculating costs based on a specific currency, but the spreadsheet will be shared internationally. If your Lotus Symphony Spreadsheets document is loaded by a user who uses a different default currency format, then the currency amounts originally noted as USD is suddenly listed as EURO. To ensure that a number you have defined in a specific currency remains in that currency, regardless of the default currency format a user has enabled, click **Layout→Properties→Text and Cells Properties,** and then click the **Numbers** tab. In the **Language** combo box, select the basic setting for currency symbol, and the relevant options for **Decimal places** and **Thousands separator.** In the **Format** list box, you can select possible variations from the default format for the language.

Topic C: Printing a Spreadsheet

Assume that you have a long worksheet that contains data on sales associates, and you need a printout of data related to sales associates working in a particular city. To do so, you can define a range for this subset and take a printout then print only the defined range. Printing only a range of cells saves resources and also presents the reader with only the relevant information.

Basic Print Options

The **Print** dialog box provides options to set the various printing options before you print a worksheet. The following table describes these options.

Print option	Description
Printer section	Options to find or select the printer. You can select or type the printer name in the **Name** text box.
Print Range section	Options to specify the range for printing. You can use these options to specify exactly which pages you want to print. If you need to print the entire workbook or worksheet, you can use the **All** option. To print selected pages, you can use the **Page(s)** option and specify the pages to be printed in the **From** and **To** spin boxes.
Copies section	Option to specify the number of copies to be printed using the **Number of Copies** text box and whether they are to be collated or not using the **Collate** check box.
Properties button	Enables you to set the printer properties.
Options button	Provides additional print options that enable you to print only the selected sheets or suppress output of empty pages.

Printing Rows or Columns on Every Page

When you have a large spreadsheet that will print on multiple pages, you can designate specific rows or columns to repeat on each printed page. This repeating information is usually data labels that will help keep a reader oriented through each page. To designate repeating rows or columns for print, click **Layout**→**Print Ranges**→**Edit.** In the **Edit Print Ranges** dialog box, click the  icon. The **Edit Print Ranges** dialog box will reduce in size, allowing you to select the rows you want to repeat. For example, if you

want to select rows 1 and 2, click in cell A1 and drag to cell A2. In the dialog box, $1:$2 will display, indicating which rows you have selected. Then click the icon to return to the **Edit Print Ranges** dialog box. Repeat this step using the icon for **Columns to repeat** to select columns.

The following figure shows the **Edit Print Ranges** dialog box.

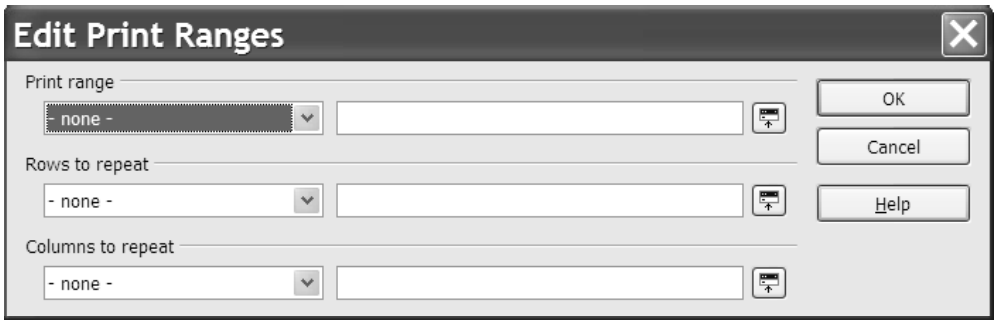


Figure 2-7: ***The Edit Print Ranges dialog box***

Printing Sheet Details

When printing a sheet, you can select which details are to be printed:

- **Column and row headers** – Specifies whether you want the column and row headers to be printed.
- **Grid:** Prints out the borders of the individual cells as a grid.
- **Notes:** Prints the notes defined in your spreadsheet. They will be printed on a separate page, along with the corresponding cell reference.
- **Objects/graphics:** Includes all inserted objects (if printable) and graphics with the printed document.
- **Charts:** Prints the charts that have been inserted into your spreadsheet.
- **Drawing objects:** Includes all draw objects in the printed document.
- **Formulas:** Prints the formulas contained in the cells, instead of the results.
- **Zero values:** Specifies that cells with a zero value are printed.

To choose the details, select the sheet you want to print, and then click **File→Page Setup.** Click the **Sheet** tab. In the **Print** section, select the details you wish to be printed and click **OK.**

The following graphic shows the **Sheet** tab of the **Page Properties** dialog box.

Note: The **Page Setup** option is not visible if the sheet was opened with write protection on.

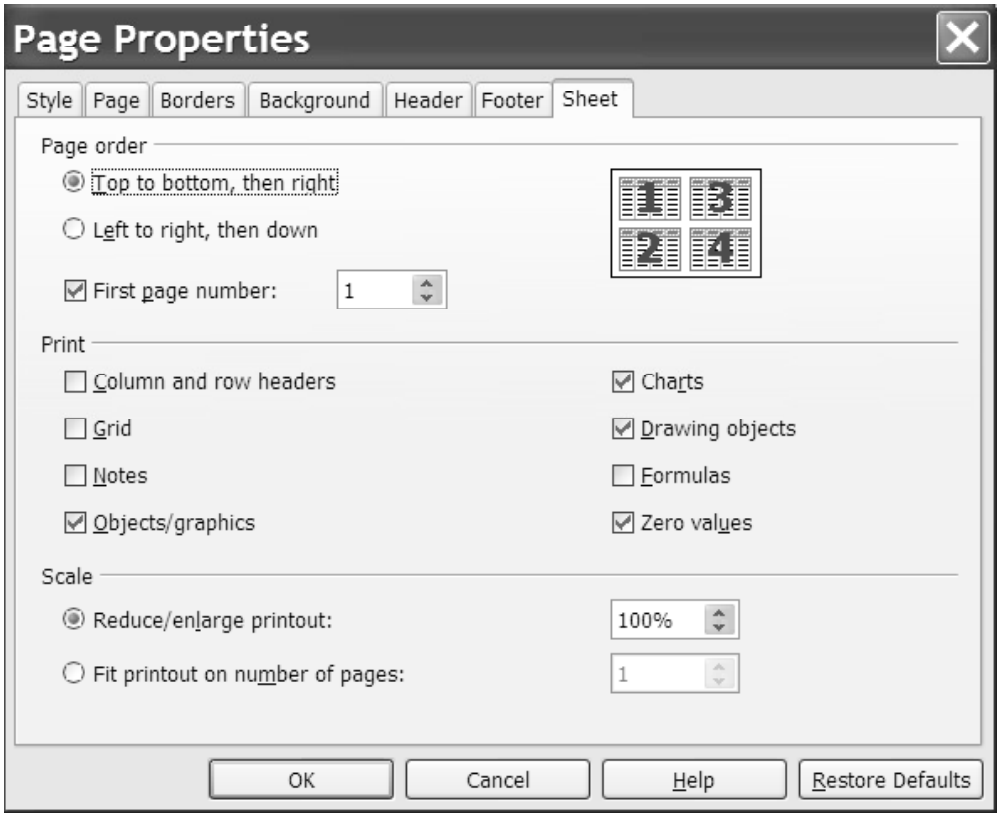


Figure 2-8: ***The Sheet tab of the Page Properties dialog box***

Printing Multiple Sheets

When you are printing a large spreadsheet or workbook, specifying the print order and adding page numbers will help to keep the printed materials in order. To specify print order and page numbers, click **File→Page Setup.** Then click the **Sheet** tab. In the **Page order** section, click either **Top to bottom, then right** or **Left to right, then down.** Then designate which number the first page should start with.

Activity 2-1: Format and Print a Lotus Symphony Spreadsheet

Before you begin:

If necessary, open Sales July to Dec.ods.

Scenario

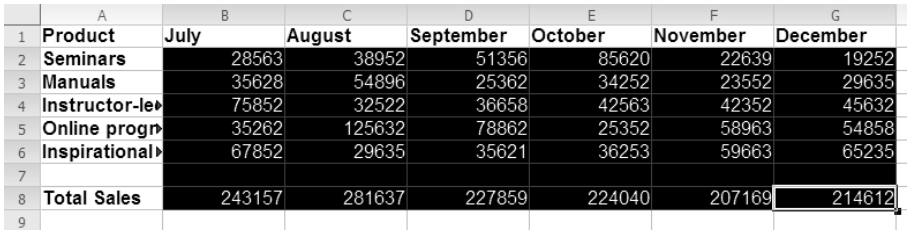
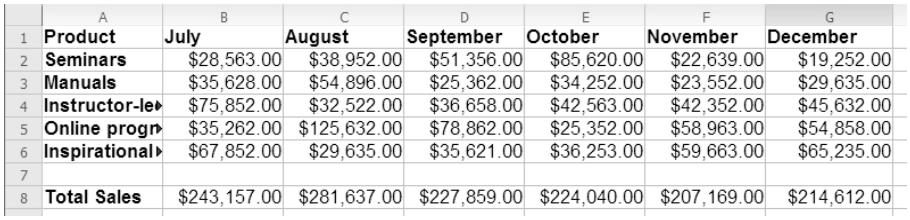
As you review the information you have already entered into the spreadsheet, you realize that you left out one category of sales figures. You want to add that information and then format the spreadsheet and configure print options before you deliver it to your manager.

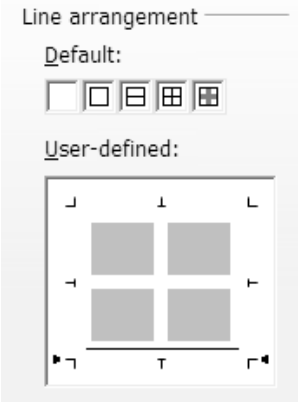
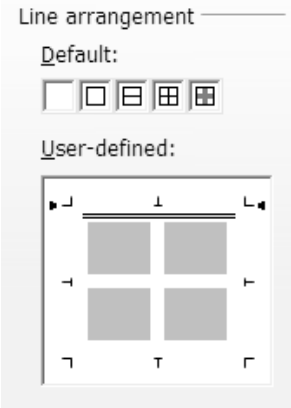
To complete this activity:

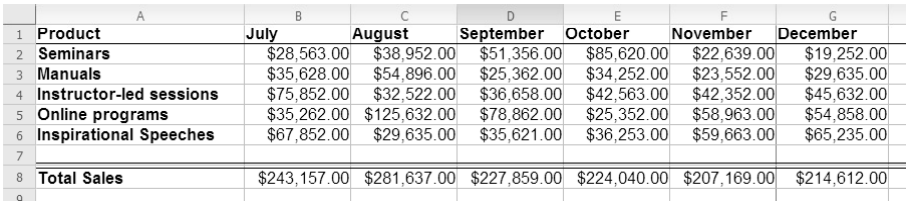
- Insert a new row of data.
- Format the numbers in the spreadsheet.
- Add cell borders to visually format the data.
- Configure print options.

Follow these steps to format and configure print options for your Lotus Symphony Spreadsheet.

Step	Action
1.	Select row 4 and click **Create→Rows.** A new blank row will display as row 4.
2.	In cell A4, type `Instructor-led sessions` and press Enter.
3.	Enter the sales values for **Instructor-led sessions:** ● July: `75852` ● August: `32522` ● September: `36658` ● October: `42563` ● November: `42352` ● December: `45632`
4.	Select cell B8 and in the Formula bar, verify that the formula has automatically adjusted to **=SUM(B2:B6).**

Step	Action
5.	Select cells B2:G8 as shown in the following graphic. 
6.	Click **Layout→Properties→Text and Cell Properties** and click the **Numbers** tab.
7.	In the **Category** list, click **Currency.**
8.	In the **Format** list, select the red text **($1,234.00).**
9.	In the **Options** section, verify that **Decimal places** is **2** and **Negative numbers red** is selected.
10.	Click **OK.** 
11.	Select row 1, click **Layout→Properties→Text and Cell Properties,** and click the **Borders** tab.
12.	In the **Line** section, in the **Style** list, click **1.00 pt.**

Step	Action
13.	In the **Line arrangement** section, in the **User-defined** box, click to add a bottom line. Click **OK.** 
14.	Select row 8, click **Layout**→**Properties**→**Text and Cell Properties,** and click the **Borders** tab.
15.	In the **Line** section, in the **Style** list, click **1.10 pt.**
16.	In the **Line arrangement** section, in the **User-defined** box, click to add a top line. Click **OK.** 

Step	Action
17.	Select column A. Hover the mouse pointer over the right column border between Column A and B, and when the mouse pointer changes to a cross, click and drag the right border to the right until all of the text displays in the column. 
18.	Click **File→Page Setup.**
19.	On the **Sheet** tab, in the **Print** section, verify that **Notes, Objects/graphics, Charts, Drawing objects,** and **Zero values** are selected.
20.	Click **OK.** The file is now formatted to print.
21.	Save and close the file.

	A	B	C	D	E	F	G
1	**Product**	**July**	**August**	**September**	**October**	**November**	**December**
2	**Seminars**	$28,563.00	$38,952.00	$51,356.00	$85,620.00	$22,639.00	$19,252.00
3	**Manuals**	$35,628.00	$54,896.00	$25,362.00	$34,252.00	$23,552.00	$29,635.00
4	**Instructor-led sessions**	$75,852.00	$32,522.00	$36,658.00	$42,563.00	$42,352.00	$45,632.00
5	**Online programs**	$35,262.00	$125,632.00	$78,862.00	$25,352.00	$58,963.00	$54,858.00
6	**Inspirational Speeches**	$67,852.00	$29,635.00	$35,621.00	$36,253.00	$59,663.00	$65,235.00
7							
8	**Total Sales**	$243,157.00	$281,637.00	$227,859.00	$224,040.00	$207,169.00	$214,612.00

Lesson Summary

In this lesson, you formatted cells and numbers and explored the various print options for a spreadsheet. Understanding the formatting options allows you to create unique and attractive spreadsheets.

Follow-up

In this course, you used Lotus Symphony Spreadsheets to manage, edit, and print data. Storing data electronically is more efficient than storing it in a paper-based system because it allows you to quickly update existing data and run reports on the data.

What's Next?

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

Also available are:

- *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*

Appendix A

Additional Resources

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

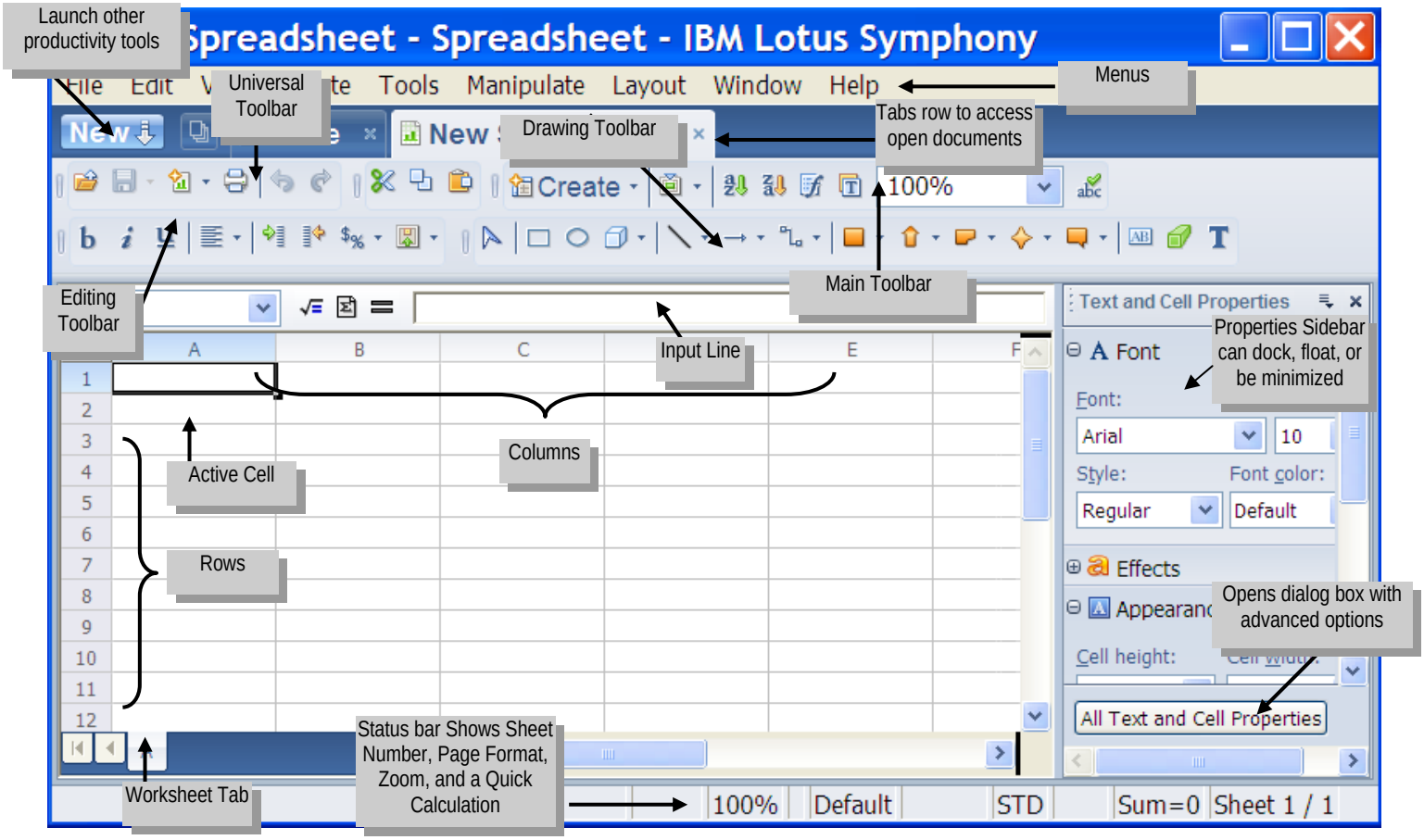
- Tour: http://symphony.lotus.com/idcontents/pdf/N8T40/start_n8t40.htm
- Demo: http://symphony.lotus.com/software/lotus/symphony/help.nsf/DemoForSpreadSheets
- Tutorial: http://symphony.lotus.com/idcontents/tutorial/en/spreadsheets_tutorial/start_spreadsheets.htm
- Toolbar Reference Card: http://symphony.lotus.com/idcontents/refcard/en/n8r40_refcarddita-pdf-mini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

Moving from Microsoft® Excel® 2003 to IBM® Lotus® Spreadsheets



Creating and editing spreadsheets

Microsoft Excel	Lotus Spreadsheets
To open a spreadsheet, click .	Click .
To create a new spreadsheet, click .	Click . Document, Spreadsheet, Presentation.
To create a spreadsheet from a template, click **File→New**, select the template location, and browse for the template.	Select **File→New→From Template** or press Ctrl+Shift+N.
To save a spreadsheet, click .	Click . Save, Save As.
To print, click .	Click .
To insert cells/rows/columns, click **Insert→Cells, Insert→Rows,** or **Insert→Columns.**	Click . Create Cells Down, Create Cells Right, Create Rows, Create Columns.

Creating and editing spreadsheets, cont.'d

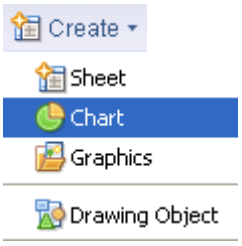
Microsoft Excel	Lotus Spreadsheets
To insert a new sheet, click **Insert→Worksheet.**	Click Create.
To spell-check, click .	Click .

Formatting

Microsoft Excel	Lotus Spreadsheets
To change font appearance, click **B**, *I*, or U.	Click b, i, or u.
To change cell alignment, click , , , or .	Click , , , or .
To copy formatting, click .	Click .
To adjust column, row, or cell size, drag borders.	Drag borders or enter measurements in Cell height: 0.18" Cell width: 0.89" on Properties sidebar.
To change the cell appearance, click **Format→Cells**, select a tab in **Format Cells** box, and then change the required elements.	In the properties sidebar, select Appearance, and then change the required elements.

MOVING FROM MICROSOFT® EXCEL® 2003 TO IBM® LOTUS® SPREADSHEETS

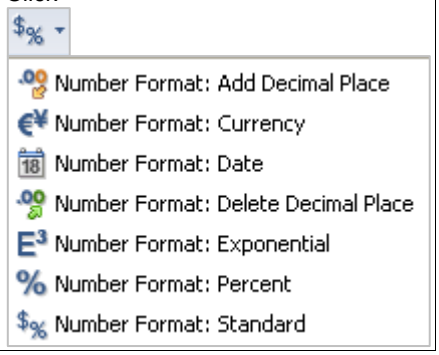
Creating and editing charts

Microsoft Excel	Lotus Spreadsheets
To create a chart, click .	 Click .
To edit chart type, click .	Click .
To edit chart style, click **Chart→Chart Options.**	Click .
To format chart area, click .	Double-click chart.
To have data appear by rows or by columns, click or .	Click or .
To turn on horizontal or vertical grids, click **Chart→Chart Options,** select gridlines tab and select or deselect the gridlines to display.	Click or .
To hide/ display axis descriptions, click **Chart→Chart Options** select axis tab and select or deselect the axis to display.	Click .
To hide/ display titles, click **Chart→Chart Options** select Titles tab and type in or delete title.	Click for main title. Click for axes titles.
To display/hide legend, click .	Click .

Formulas and functions

Microsoft Excel	Lotus Spreadsheets
To total a cell range, select the range, and then click .	Select the range, and then click .
To enter a formula, type =, enter formula, and hit <Enter> when done.	Click then enter formula. Clicking a cell enters that cell into the formula.
To choose a function, click .	Click then choose a function.
To show the formula list, click **Insert→Function**.	Click then choose a formula.
To sort cell contents, select the contents then click .	Select the contents, and then click .
To merge cells, click **Format→Cells→Alignment Tab** then click the box beside **Merge Cells,** and then click **OK**.	Click **Layout→Merge Cells**, and then click **Define**.

Formulas and functions, cont.'d

Microsoft Excel	Lotus Spreadsheets
To format values, click any of .	Click 

Shortcuts

To . . .	Do this . . .
Create a PDF	Click **File→Export as PDF.**
Create cells	Press Ctrl+1.
Select cells	Press Shift+arrow keys.
Select a row	Press Shift+space bar.
Select a column	Press Ctrl+Shift+C.
Select all	Press Ctrl+A.
Select all cells with values	Press Ctrl+Shift+X.
Switch to edit mode	Press F2.
Choose a function	Press Ctrl+F2.
Switch to function edit mode	Press Ctrl+Shift+F2.
Recalculate all formulas	Press F9.
Create a new spreadsheet	Press Ctrl+N.
Create a new spreadsheet from template	Press Ctrl+Shift+N.
Save as	Press Ctrl+Shift+S.
Open Print Preview	Press Ctrl+Alt+P.
Increase row height	Press Alt+Down Arrow.
Decrease row height	Press Alt+Up Arrow.
Increase column width	Press Alt+Right Arrow.
Decrease column width	Press Alt+Left Arrow.
Optimize row and column size	Press Alt+Shift+arrows.
Open Style List	Press F11.
Center cell contents	Press Ctrl+H.
Justify cell contents	Press Ctrl+J.
Left align cell contents	Press Ctrl+L.
Right align cell contents	Press Ctrl+R.
Copy	Press Ctrl+C or click .
Paste	Press Ctrl+V or click .
Cut	Press Ctrl+X or click .
Undo	Press Ctrl+Z.
Copy or move using **drag and drop**	Select the cells and drag by the borders to move. Hold Ctrl while dragging to copy.
Navigate within the spreadsheet	Press F5 to open the Navigator.

Glossary

active cell
The cell that is selected in any spreadsheet is the active cell.

cell style
A collection of individual format options that you can apply to selected cells.

contiguous range
Cells that are adjacent to each other.

fill handle
The box at the corner of a cell or range that you use to activate the Auto Fill feature.

Formula bar
An interface component that contains the Sheet Area drop-down list, the Choose Function button, the Sum button, the Function button, and the formula field for specifying formulas.

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

margin
A margin determines the amount of space between the worksheet data and the edge of the paper.

noncontiguous range
Cells that are not adjacent to each other.

number format
A number format is a data format that changes the appearance of the numerical data in a cell.

page orientation
The arrangement of content in a page.

spreadsheet
A paper or electronic document that stores various types of data, such as numbers, text, and non-alphanumeric symbols, in a tabular format.

workbook
A repository of related spreadsheets.

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