Using IBM® Lotus® Symphony™ Spreadsheets: Power User

Student Guide

Using IBM® Lotus® Symphony™ Spreadsheets: Power User

Part Number: Y1300
Course Edition: 1.0

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About This Course

Advanced analysis techniques help you extract more value from your static data by summarizing and forecasting values that are not readily apparent. Using collaboration techniques helps you add value to your data and analysis of the data by allowing you to incorporate the feedback of others into your data.

Course Description

Target Student

This course is designed for IBM® Lotus® Symphony™ end users who will use these materials to learn the power-user 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:

- Work with advanced calculation tools.

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 – PowerL1.ods	Spreadsheet file used in the lesson 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. Follow these steps to install the course data files.

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.
	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.

Working with Advanced Calculations Tools

- **Topic A:** Working with Advanced Calculation Tools
- **Topic B:** Using References
- **Topic C:** Collaborating on Spreadsheets

Introduction

One of the most time-consuming things you need to do when you create a workbook is calculate the data. It is not too bad when you are simply adding a column, but what happens when you need to figure out something more advanced, such as loan payments? Advanced math problems such as these can take hours to solve using simple math. Instead, you can use the advanced calculation functions built into IBM® Lotus® Symphony™ Spreadsheets. The functions perform the calculations and the answers are displayed almost instantaneously.

After completing this lesson, you should be able to:

- Work with advanced calculation tools.
- Use references.
- Collaborate on spreadsheets.

Topic A: Working with Advanced Calculation Tools

At times, you will need to use specialized functions to perform advanced calculations. Using specialized categories of functions will allow you to go beyond basic mathematics and perform operations on different types of data such as text, dates, and times.

DataPilot Tables

A **DataPilot table** is an interactive table you can use to combine, compare, and analyze large amounts of data. You can view different summaries of the source data, display the details for areas of interest, and create reports. You can arrange, rearrange, or summarize the data according to different points of view. To create a DataPilot table in IBM® Lotus® Symphony™ Spreadsheets, position the cursor within a range of cells containing values and row and column headings. Click **Manipulate→Data Pilot→Start.** In the **Data Pilot: Select Source** dialog box, select **Current selection,** unless you have data from a specific data source, and click **OK.** The **Data Pilot** dialog box is displayed, allowing you to choose the layout of the DataPilot table. The table headings are shown as buttons. Right-click these buttons and then click **Move to Row, Move to Column,** or **Move to Data** as required to add them into the layout areas **Column, Row** and **Data.** If the button is dropped in the **Data** area, it will be given a caption that will also show the formula used to calculate the data.

The following figure shows the **Data Pilot** dialog box.

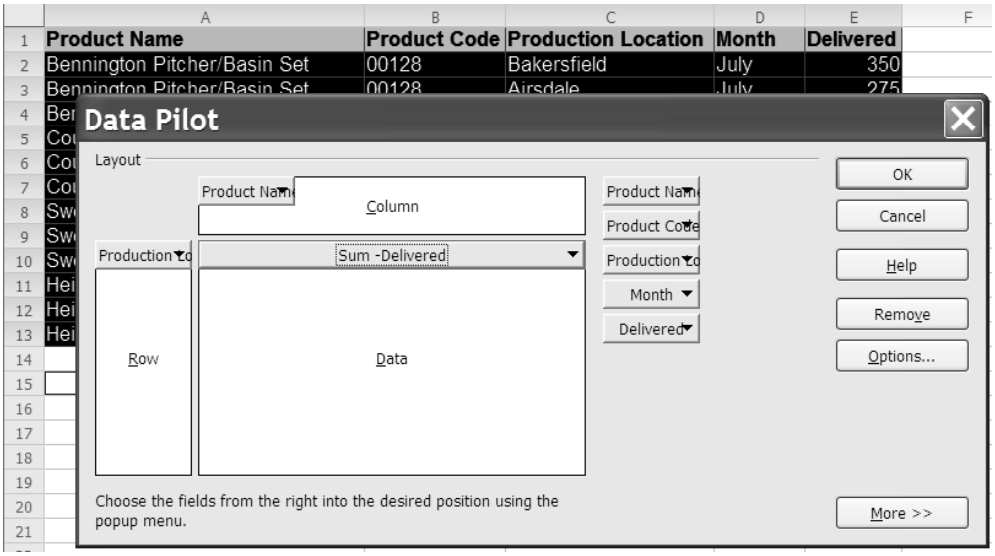


Figure 1-1: ***The Data Pilot dialog box***

If you right-click one of the fields in the **Data** area and click **Options,** the **Data Field** dialog box is displayed. In the **Data Field** dialog box, you can select the type of calculations to be used for the data. To make multiple selections, press the Ctrl key while clicking the calculation options. Click **OK** to exit the **Data Field** dialog box.

The following figure shows the **Data Field** dialog box.

Figure 1-2: ***The Data Field dialog box***

Click **OK** again to exit the **Data Pilot** dialog box. A **Filter** button will now be inserted into the table below the source data. Two rows further down the DataPilot table is inserted. The following figure shows a DataPilot table.

	A	B	C	D	E	F
1	**Product Name**	**Production Location**	**Month**	**Delivered**		
2	Bennington Pitcher/Basin Set	Bakersfield	June	350		
3	Bennington Pitcher/Basin Set	Airsdale	June	275		
4	Bennington Pitcher/Basin Set	Lahannah	June	400		
5	Country Classic Serving Platter	Bakersfield	June	500		
6	Country Classic Serving Platter	Airsdale	June	550		
7	Country Classic Serving Platter	Lahannah	June	620		
8	Sweetheart Vase	Bakersfield	June	425		
9	Sweetheart Vase	Airsdale	June	396		
10	Sweetheart Vase	Lahannah	June	467		
11	Heirloom Coffee/Tea Service	Bakersfield	June	255		
12	Heirloom Coffee/Tea Service	Airsdale	June	301		
13	Heirloom Coffee/Tea Service	Lahannah	June	298		
14						
15	Filter					
16						
17	Sum - Delivered	Product Name				
18	Production Location	Bennington Pitcher/Ba	Country	Heirloom	Sweetheart V	**Total Result**
19	Airsdale	275	550	301	396	**1522**
20	Bakersfield	350	500	255	425	**1530**
21	Lahannah	400	620	298	467	**1785**
22	**Total Result**	**1025**	**1670**	**854**	**1288**	**4837**
23						

Figure 1-3: ***A DataPilot table***

Consolidating Data

You may want to consolidate cell ranges that contain similar data within a spreadsheet, or consolidate data from several different spreadsheets. Lotus Symphony Spreadsheets provides a **Consolidation** function that allows you to do this. Click in the spreadsheet where you want to add the consolidated data, and then click **Manipulate→Consolidation.** In the **Consolidation** dialog box, click the **Source data range** icon to select a cell range you want to consolidate. Click **Add.** This will add the selected range to the **Consolidation ranges** list box. Repeat these steps for each cell range you want to consolidate. The **Copy results to** field displays the first cell in the range where the consolidated data will display; you can adjust this location using the icon. Click **OK** to consolidate the data.

The following figure shows the **Consolidation** dialog box.

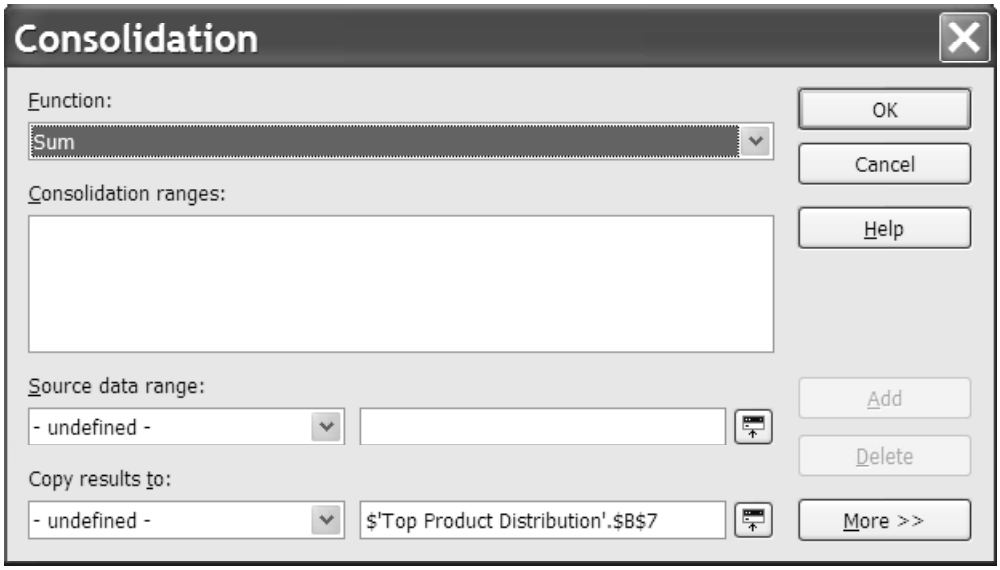


Figure 1-4: ***The Consolidation dialog box***

If you prefer to retain links to the source ranges instead of copies, or if you want to consolidate ranges in which the order of rows or columns varies, click the **More** button in the **Consolidation** dialog box. Select **Link to source data** to insert the formulas that generate the results in the target range, rather than the actual results. If you link the data, any values modified in the source range are automatically updated in the target range. The corresponding cell references in the target range are inserted in consecutive rows, which are automatically ordered and then hidden from view. Only the final result, based on the selected function, is displayed. In the **Consolidate by** section, select either **Row labels** or **Column labels** if the cells of the source data range are not to be consolidated corresponding to the identical position of the cell in the range, but instead according to a matching row label or column label. To consolidate by row labels or column labels, the label must be contained in the selected source ranges. The text in the

labels must be identical, so that rows or columns can be accurately matched. If the row or column label does not match any that exist in the target range, it will be appended as a new row or column. The data from the consolidation ranges and target range will be saved when you save the document. If you later open a document in which consolidation has been defined, this data will again be available.

Solving Equations

The **Solve Equations** function enables you to calculate a value as part of a formula that leads to the result you specify for the formula. You define the formula with several fixed values and one variable value and the result of the formula. To access the **Solve Equations** function, click the cell your formula result should appear in, and then click **Tools→Solve Equations.** The cell you selected will already be displayed in the **Formula cell** field; use the icon to change the formula cell location in the spreadsheet. In the **Variable cell** field, use the icon to select the cell that contains the value to be changed. In the **Target value** field, type the expected result of the formula. Then click **OK.** A dialog box will display indicating the result is available; click **Yes** to enter the result in the selected cell.

The following figure shows the **Solve Equation** dialog box.

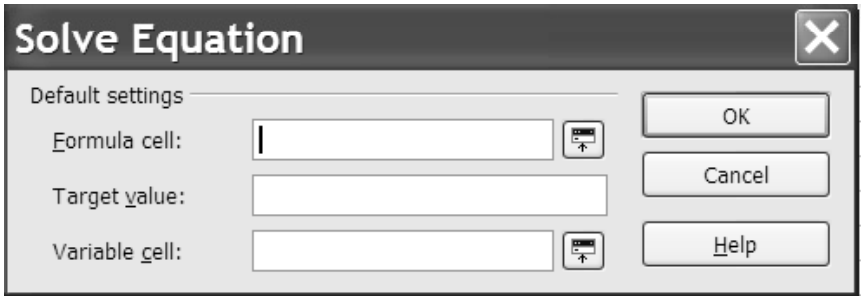


Figure 1-5: ***The Solve Equation dialog box***

Applying Multiple Operations

To save time, you can use the **Multiple Operations** function to apply the same formula to different cells using different parameter values. To access the **Multiple Operations** function, click **Manipulate→Multiple Operations.** In the **Multiple Operations** dialog box, in the **Formulas** field, enter the cell references for the cells containing the formulas you want to use in the multiple operation. In the **Row input cell** field, enter the cell that you want to use as a variable for the rows in the data table. In the **Column input cell** field, enter the cell you want to use as a variable for the columns in the data table.

The following figure shows the **Multiple Operations** dialog box.

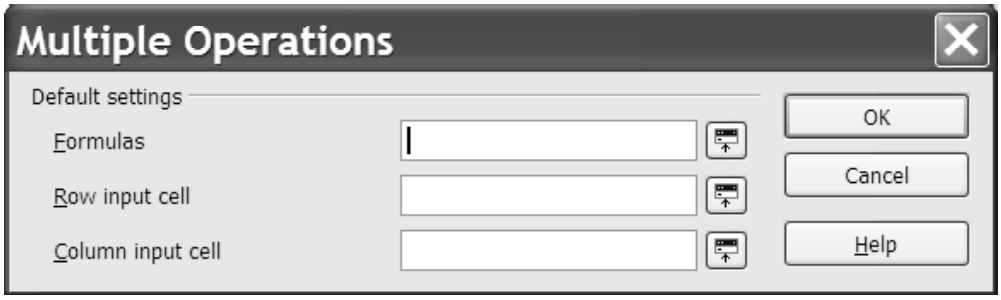


Figure 1-6: ***The Multiple Operations dialog box***

Defining Validity for Cell Contents

For each cell, you can define in advance what type of content is valid for that cell. This allows you to restrict cells to receive specific values and ranges, which allows you to guide users who enter data in the spreadsheet. To define validity for cells, select the cells you want to define. Click **Manipulate→Validity.** In the **Validity** dialog box, on the **Criteria** page, in the **Allow** drop-down list, click a condition for new values entered into cells. Values you have already entered will not be affected. After you have selected a condition in the **Allow** drop-down list, then set additional conditions in the **Data** drop-down list. Depending on what selection you make, additional options may display to further define the condition.

The following figure shows the **Validity** dialog box.

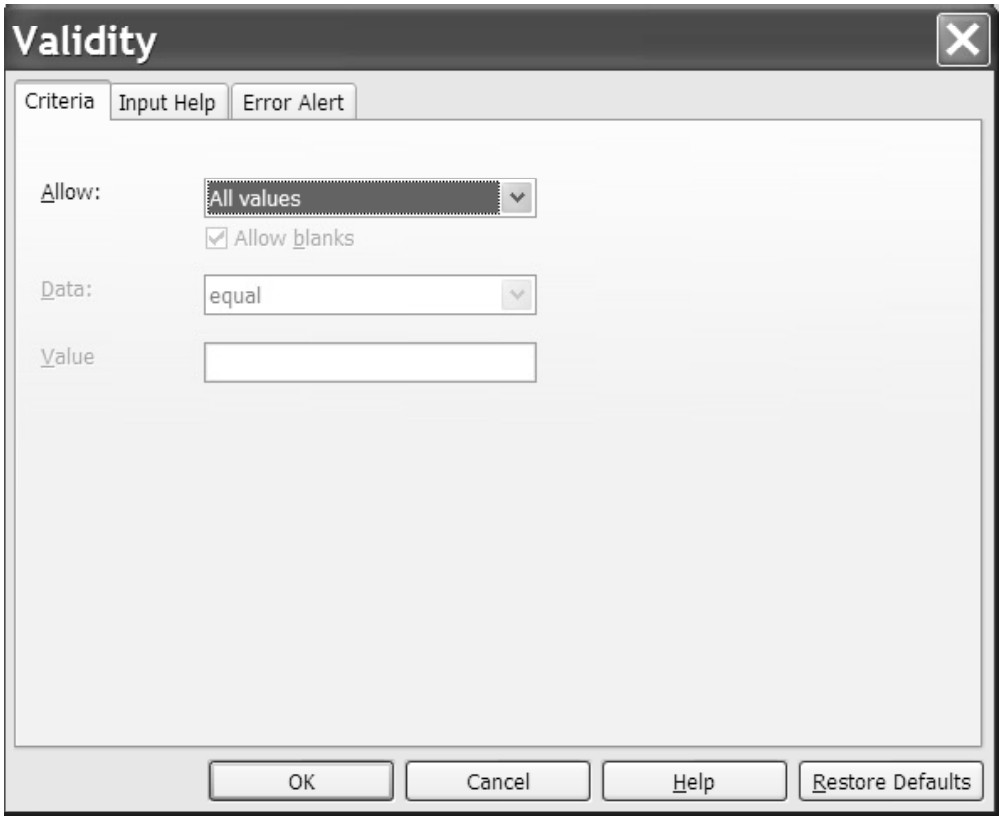


Figure 1-7: *Validity dialog box*

After you have configured the criteria options, use the **Input Help** and **Error Alert** tabs to create assistance for users inputting data. On the **Input Help** tab, enter a tip title and text that will be displayed if the cell is selected by a user. On the **Error Alert** tab, select an action to be carried out when the user inputs an error:

- **Stop:** Invalid entries are not accepted and the previous cell contents are retained.
- **Warning:** Will display a dialog box where the entry can either be cancelled or accepted, even if it violates the validity requirements.
- **Information:** Will display a dialog box where the entry can either be cancelled or accepted, even if it violates the validity requirements.

Lotus Symphony What If

The **Lotus Symphony What If** functions are important aids for making numbers that are dependent upon each other, and their resulting calculations, visible. What If allows you to create a list of values to select from for a given cell or group of cells. The contents of these cells change when you select different items from the list. If you modify specific basic requirements in the table, you will see the new result. You can give a name to the What If created in this manner and compare it with other What If results.

To create a What If, select all the cells that provide the data for the What If. Click **Tools→What If.** The **Create What If** dialog box displays and includes the following options:

- **Name of What-if Situation:** Defines the name for the what if. Use a clear and unique name so you can easily identify the scenario. You can also modify a scenario name in the **Navigator** through the **Properties** context menu command.
- **Comment:** Specifies additional information about the scenario. This information will be displayed in the **Navigator** when you click the k icon and select the desired scenario. You can also modify this information in the **Navigator** through the **Properties** context menu command.
- **Settings:** This section is used to define some of the settings used in the scenario display.
  - **Display border in:** Highlights the scenario in your table with a border. The color for the border is specified in the field to the right of this option. The border will have a title bar displaying the name of the last scenario. The button on the right of the scenario border offers you an overview of all the scenarios in this area, if several have been defined. You can choose any of the scenarios from this list without restrictions.
  - **Copy back:** Copies the data back into the active scenario, if one has been selected from the list. Afterwards, you can edit the data for each scenario directly in the sheet. If this option has not been selected together with **Display border in,** you will not be able to see scenarios in the sheet. In this case, you can use the **Navigator.** Click the **Scenarios** button located in the **Navigator** to show and then select one of the defined scenarios for this sheet.
  - **Copy entire sheet:** Copies the entire sheet into an additional scenario sheet.

Topic B: Using References

You may find that you have data located in several different sheets that you need to use in your calculations. You could cut and past the data into a single spreadsheet, but if the original data changed, your duplicated data would be incorrect. Instead, you can calculate across sheets in a formula. Your calculation will be accurate, regardless of where the data is stored.

Naming Cells

IBM® Lotus® Symphony™ Spreadsheets allows you to assign names to cell ranges. First, select a cell or range of cells, and then click **Create→ Names→Define.** In the **Define Names** dialog box, type the name of the selected area in the **Name** field and click **Add.** The new name will display in the list. Click **OK** to close the dialog box. You can refer to cells and cell ranges in formulas by using the names you have assigned them.

Relative Addressing

A **relative addressing** reference is a cell reference in a formula that changes when a formula is copied from one position to another, to reflect the new position. Relative references are used to create formulas that use values that are relative and are not fixed. Relative references contain a cell's column and row heading.

For example, the cell in column A, row 1 is addressed as A1. You can address a range of adjacent cells by first entering the coordinates of the upper left cell of the area, then a colon followed by the coordinates of the lower right cell. For example, the square formed by the first four cells in the upper left corner is addressed as A1:B2. By addressing an area in this way, you are making a relative reference to A1:B2. The reference to this area will be adjusted automatically when you copy the formulas.

Absolute Addressing

Absolute addressing references are the opposite of relative addressing references. An absolute reference is a cell reference in a formula that does not change when the formula is copied from one position to another to reflect the new position. Absolute references are used in formulas to refer to the values in cells that need to be constant while performing calculations. All absolute references contain a dollar sign ($) before the column and row heading in the cell reference.

Lotus Symphony Spreadsheets can convert the current reference, in which the cursor is positioned in the input line, from relative to absolute and vice versa when you press Shift+F4. If you start with a relative address such as A1, the first time you press this key combination, both row and column are

set to absolute references (A1). The second time, only the row (A$1) is set, and the third time, only the column ($A1). If you press the key combination once more, both column and row references are switched back to relative (A1). IBM Lotus Symphony Spreadsheets shows the references to a formula.

Referencing a Cell in a Different Sheet

You can use the Lotus Symphony **Navigator** to reference cells from one sheet to another. The cells can be inserted as a copy, link, or hyperlink. You must define the range to be inserted with a name in the original file so that it can be inserted in the target file. Open the spreadsheet that contains the source cells. To set the source range as the range, select the cells and click **Create→Names→Define.** Save the source document, but do not close it. Open the sheet in which you want to insert something. Open the **Navigator** by clicking **Edit→Navigator.** Click the plus sign (+) in front of **Range names,** and select the source object. Right-click and click **Drag Mode.** Then select the type of the reference that you want, whether it be a hyperlink, link, or copy. Drag the selected source object into the cell of the current sheet where you want to insert the reference.

Topic C: Collaborating on Spreadsheets

In a work environment, there are instances where you may have to coordinate with others to work on a common file. While collaborating with other users, you make your data available to others, and they make their data available to you.

Recording Changes

It is rare that a document does not get reviewed or revised by another party at some point over the course of its creation. IBM® Lotus® Symphony™ Spreadsheets allows you to enable the recording of changes as they are made in a document, so that another party can quickly determine what was changed from one version to the next. This eliminates the need to open two separate versions of the same document and compare them line by line in order to discover what was changed.

To enable change recording, click **Edit→Revisions→Record.** Certain changes in your document are not recorded, such as changing tab stops, page margins, or other document-related properties. Change recording will, however, make note of any data additions, deletions, alterations, and other various formatting. For example, when you change data in a spreadsheet with change recording enabled, the cell that contains the changed data will display a red border. If you hover the mouse pointer over the red border, a yellow box will display, explaining the changes that were made to the data in that cell.

The following graphic shows an example of a recorded change.

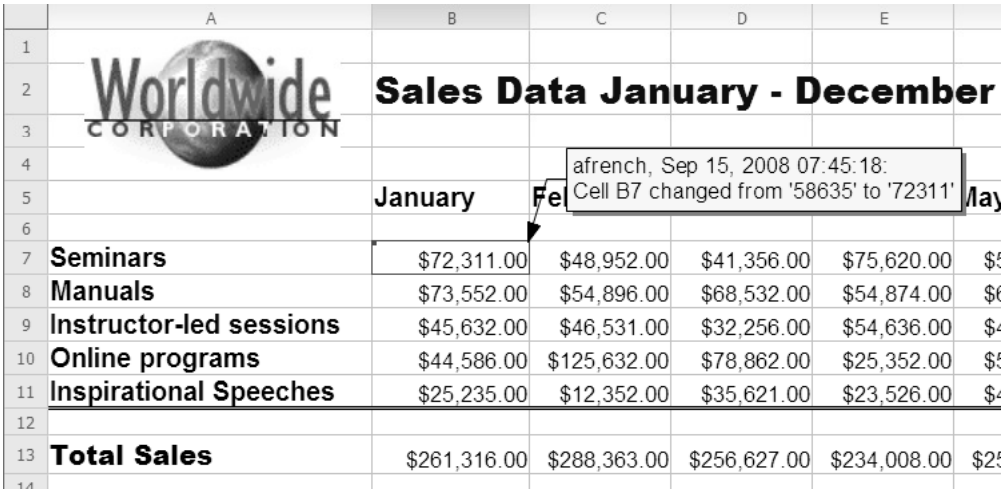


Figure 1-8: ***An example of a recorded change***

Adding Comments

Comments provide a way for you and others to communicate with each other within the document, but without adding text to the content of the document itself. The benefit of this is that the comments travel along with the spreadsheet itself, and are not lost or misplaced in long e-mail chains. Comments are marked with the name of the user who has entered the comment, and they are also time-stamped to indicate when the comment was made.

A comment may only be added to text that has been changed in the spreadsheet, with change recording enabled. The purpose of the comment is to provide an explanation as to why the change was made. You can insert a comment by placing the cursor within the changed text, and clicking **Edit→Revisions→Comment.** In the **Create Comment** dialog box, you may provide a short message about the change. This comment will be visible when another reviewer opens the spreadsheet and accepts or rejects changes. It will also be displayed any time a user rolls the mouse over that particular change.

Comments vs. notes

It is important to be aware of the difference between a comment and a note. A comment may be applied only to a change that has been made to a spreadsheet with change recording enabled. A note, however, may be made anywhere in the spreadsheet and does not need to be associated with any particular changes.

To add a note to your spreadsheet, place the cursor where you would like to add a note, and click **Create→Note.** Provide the text to be displayed in your note, and click **OK.** A small yellow marker will indicate the presence of a note in the document. This note text is visible when a user rolls over the note. You can double-click the note marker at any time to edit it, or click the note and press Delete to remove it.

Caution: It is important that you do not highlight text before adding a note. The yellow note marker will overwrite any selected text. Instead, place the cursor to mark the location of the note without highlighting any text.

Accepting or Rejecting Changes

The benefit of recording the changes made to a spreadsheet is the ease in which another person may review these revisions. Instead of comparing spreadsheets on a line-by-line basis, Lotus Symphony Spreadsheets calls attention to all data and formatting changes to the spreadsheet.

When you are ready to review the changes made by another reviewer, open the spreadsheet and click **Edit→Revisions→Accept or Reject.** In the **Accept or Reject Changes** dialog box, a list of all changes to the spreadsheet is provided.

The actions that you can take are provided at the bottom of the dialog box. The following table describes those actions.

Action	Result
Accept	Accepts the currently selected change in the above list, and removes the change highlight in the document.
Reject	Rejects the currently selected change in the above list, and places the original text in the document.
Accept All	Accepts all changes made to the document at once, and removes all change highlighting.
Reject All	Rejects all changes made to the document, and removes all change highlighting.

On the **Filter** tab of the dialog box, you can narrow your search of specific changes to the spreadsheet. This is especially helpful when the spreadsheet has been through multiple reviews since you have last seen it. You can filter the recorded changes by specifying a range of dates or sorting by author, by action, or by any comments that have been entered.

Spreadsheet Navigator

The Lotus Symphony Spreadsheets **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 image shows the Lotus Symphony Spreadsheets **Navigator.**

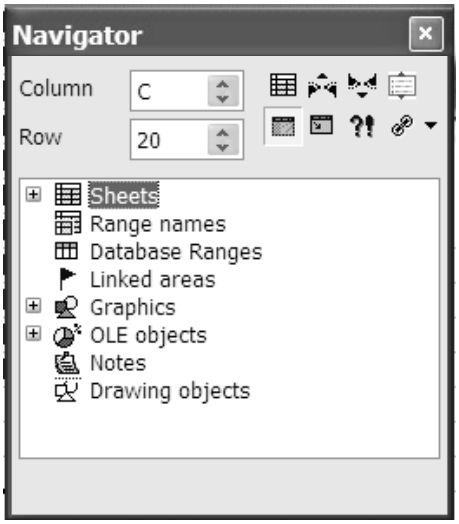


Figure 1-9: ***The Lotus Symphony Spreadsheets Navigator***

Activity 1-1: Work with Advanced Calculation Tools

Data Files:

- TopSalesReport -- PowerL1.ods

Scenario

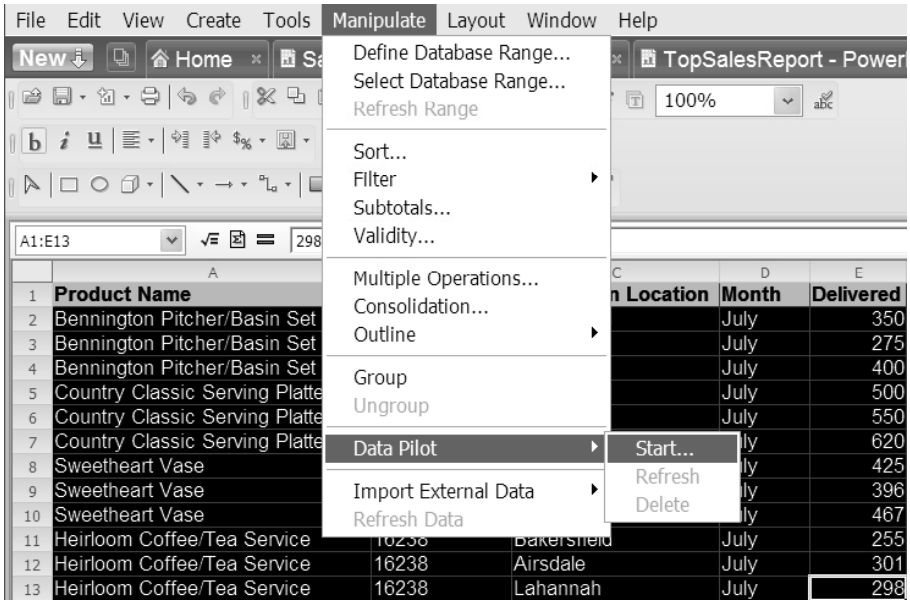
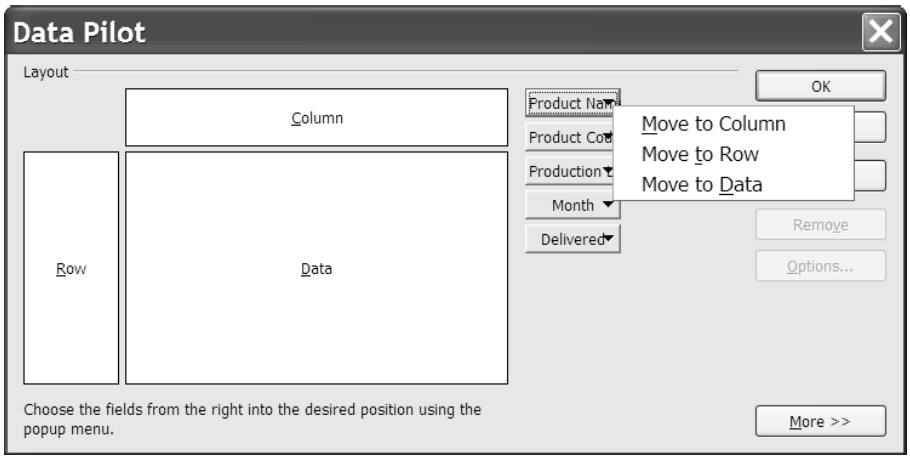
A co-worker has sent you a spreadsheet file. He would like you to add a DataPilot table to the **Top Product Sales** sheet and review all of the information on both sheets to verify its validity.

To complete this activity:

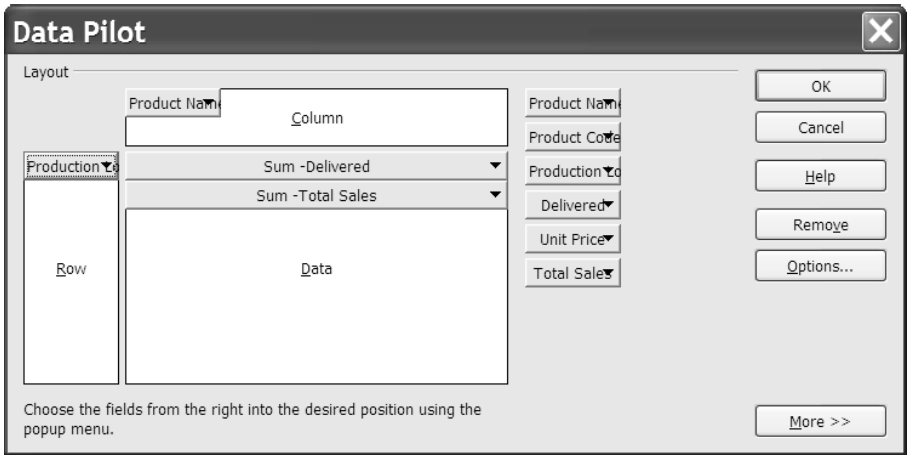
- Create a DataPilot table.
- Review the data and track any changes.
- Name cells in the **Delivered** column and reference that range on the **Top Product Sales** sheet.

Follow these steps to work with the advanced calculation tools.

Step	Action
1.	Click **File→Open→File.** In the **Open** dialog box, browse to **c:\lotus_ed\Spreadsheets** and double-click the **TopSalesReport – PowerL1.ods** file to open it.
Create a DataPilot table.	
2.	Click the **Top Product Sales** sheet tab.
3.	Select cells A1:F13.

Step	Action
4.	Click **Manipulate→Data Pilot→Start.** 
5.	In the **Data Pilot: Select Source** dialog box, verify that **Current selection** is selected in the **Selection** section, and then click **OK.**
6.	In the **Data Pilot** dialog box, right-click the **Product Name** button and click **Move to Column.** 
7.	Right-click the **Production Location** button and click **Move to Row.**
8.	Right-click the **Delivered** button and click **Move to Data.**

Step	Action
9.	Right-click the **Total Sales** button and click **Move to Data.**



10.	Click **OK.**

14							
15	Filter						
16							
17			Product Name				
18	Production Location	Data	Bennington Pitcher/Ba	Country Class	Heirloom Coff	Sweetheart V	Total Result
19	Airsdale	Sum - Total Sa	$24,750.00	$24,750.00	$42,140.00	$19,800.00	$111,440.00
20		Sum - Delivere	275	550	301	396	1522
21	Bakersfield	Sum - Total Sa	$31,500.00	$22,500.00	$35,700.00	$21,250.00	$110,950.00
22		Sum - Delivere	350	500	255	425	1530
23	Lahannah	Sum - Total Sa	$36,000.00	$27,900.00	$41,720.00	$23,350.00	$128,970.00
24		Sum - Delivere	400	620	298	467	1785
25	Total Sum - Total Sales		$92,250.00	$75,150.00	$119,560.00	$64,400.00	$351,360.00
26	Total Sum - Delivered		1025	1670	854	1288	4837
27							
28							

Review the data and track any changes.

11.	Click **Edit→Revisions→Record** to activate the record changes features.
12.	As you are reviewing the data on the **Top Product Distribution** sheet, you notice that the data for the **Lahannah** location appears to be the June numbers, not the July numbers as noted. Change the **Lahannah** figures to the following: ● **Bennington Pitcher/Basin Set:** `425` ● **Country Classic Serving Platter:** `650` ● **Sweetheart Vase:** `435` ● **Heirloom Coffee/Tea Service:** `350` Notice that as you change the data in column E, the chart data automatically updates.
13.	You also want to leave a comment for your co-worker explaining why you have changed the **Lahannah** data. Select cell E4 and click **Edit→Revisions→Comments.**

Step	Action
14.	In the **Comments** dialog box, in the **Text** field, type `Contained June data, replaced with actual July data in all Lahannah cells.` and then click **OK.**
Name cells in the Delivered column and reference that range on the Top Product Sales sheet.	
15.	You decided to name the **Delivered** column data range so you can reference the data where it is used in other locations, which will save time when updating the numbers. You will not have to do it in multiple locations. Select cells E1:E13. Click **Create→Names→Define.**
16.	In the **Define Range Names** dialog box, in the **Name** field, type `Delivered` and click **Add.** 
17.	Click **OK.**
18.	Save the file.
19.	Click the **Top Product Sales** sheet tab.
20.	Click **Edit→Navigator** to open the Lotus Symphony **Navigator.**
21.	In the **Navigator,** expand **Range names,** right-click **Delivered,** and click **Drag mode→Insert as copy.**

Step	Action
22.	Drag the **Delivered** range name to cell D1. Notice that a copy of the named ranged is applied to column D, including the tracked changes.
23.	Save and close the file.

Lesson Summary

In this lesson, you explored Lotus Symphony Spreadsheet's advanced calculation tools, named cells and used the names to reference data, and you utilized collaboration tools to track changes, add comments and resolve changes.

Follow-up

In this course, you applied advanced calculation tools, utilized references, and collaborated on worksheets with others. Using collaboration techniques helps you add value to your data and analysis of the data by allowing you to incorporate feedback of others into your data.

What's Next?

After completing the *Using IBM® Lotus® Symphony™ Spreadsheets: Power User* course, you may want to continue with any of the following courses:

- *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*

Also available are:

- *Using IBM® Lotus® Symphony™ Spreadsheets: Basics*
- *Using IBM® Lotus® Symphony™ Spreadsheets: Beyond Basics*

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:

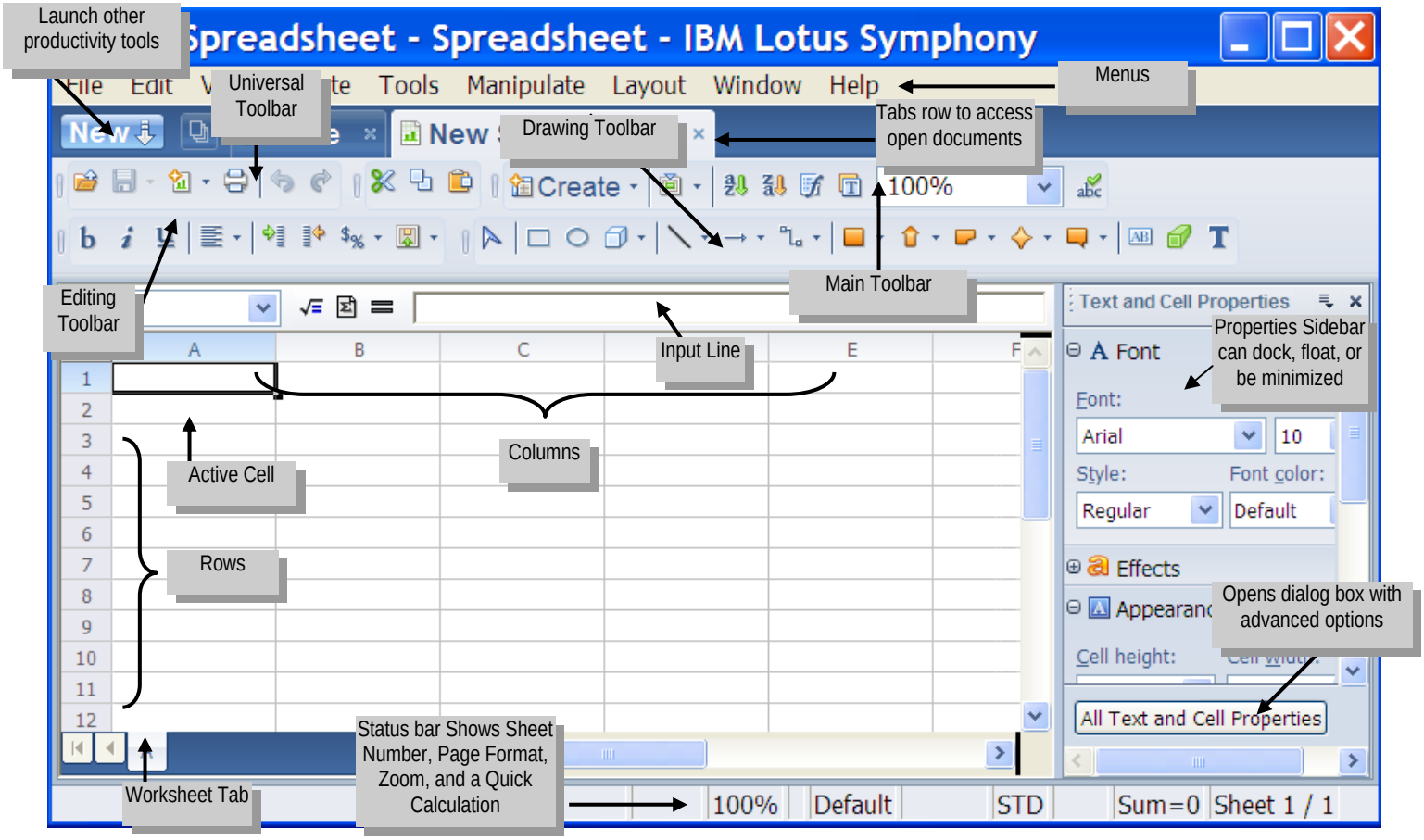
- Tour: http://symphony.lotus.com/idcontents/pdf/N8T40/start_n8t40.htm
- Demo: http://symphony.lotus.com/software/lotus/symphony/help.nsf/DemoForSpreadSheets
- Tutorial: http://symphony.lotus.com/idcontents/tutorial/en/spreadsheets_tutorial/start_spreadsheets.htm
- Toolbar Reference Card: http://symphony.lotus.com/idcontents/refcard/en/n8r40_refcarddita-pdf-mini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

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

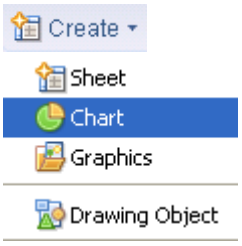
Microsoft Excel	Lotus Spreadsheets
To insert a new sheet, click **Insert→Worksheet.**	Click Create.
To spell-check, click .	Click .

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

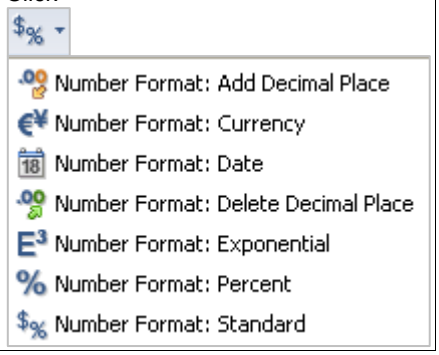
Creating and editing charts

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

absolute reference
A cell reference in a formula that does not change when you copy the formula.

data consolidation
A method of summarizing data from several ranges into a single range.

data validation
A validation technique that is used to restrict the value or type of data that can be given as input based on a specific set of criteria.

DataPilot table
An interactive table used to combine, compare, and analyze large amounts of data.

external reference
A reference to another workbook of the defined name in another workbook.

invalid data
Any data in a cell that does not conform to the cell's data validation scheme.

relative reference
A cell reference is a formula that changes when a formula is copied from one position to another, to reflect the new position.

revision tracking
A formatting tool used to track the person, date, and time of any revisions made to a spreadsheet.

Solve Equation
A function used to set the value stored in a single cell to a specified value by changing the value stored in multiple other cells.

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