

## Section 2

# Summarizing Data

### Data Consolidation

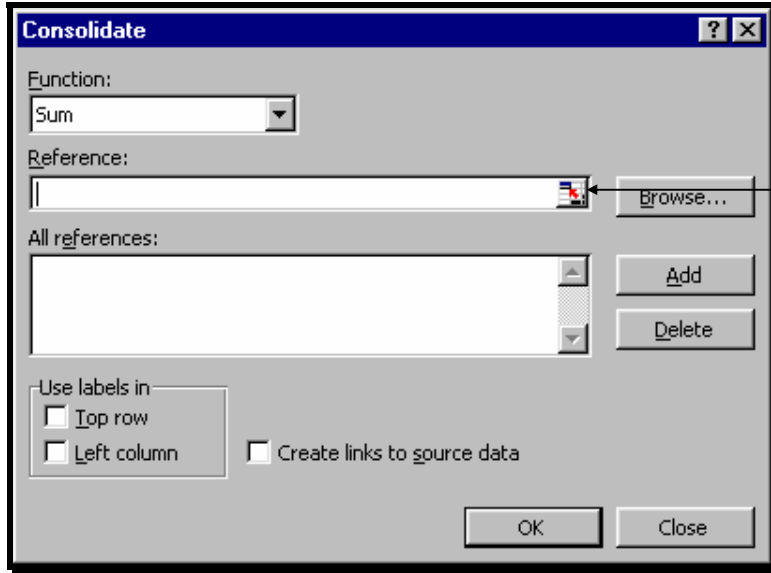
You can summarize data from one or more worksheets by using 3-D Reference formulas or the Data Consolidate command from the menu.

When preparing to consolidate data, you need to determine where you want the consolidated data to be placed (destination area) and the location of the data to be consolidated (source area).

Consolidated data can also be linked to the source so updates are automatic when source data changes. If you choose not to link to the source data, only the value of the formulas are carried forward to the consolidated range.

In the next exercise, you will consolidate data from three worksheets.

1. Open the file **Projected Sales**.
2. Save the file as **Projected Sales Summary**.
3. Click on the **Summary** sheet tab to activate the sheet.
4. Activate cell **B9**.  
*This is the location where the consolidated data will begin.*
5. Select **D**ata from the menu bar.
6. Choose **C**onsolidate...  
*The **Consolidate** dialog box is displayed.*

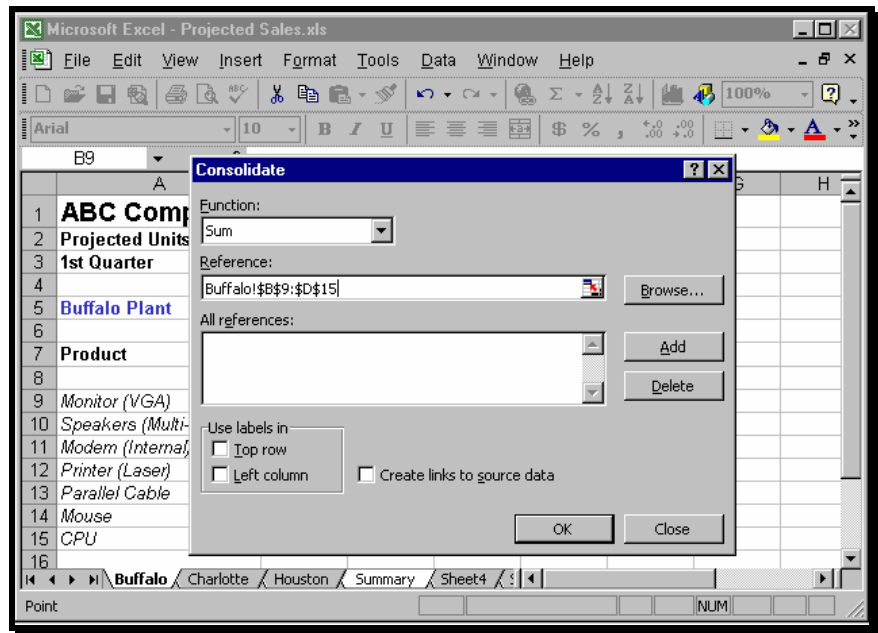


Select Icon

7. In the **Function:** list box, choose **Sum**.
8. Click the **Select** icon to the right of the **Reference** text box.
9. Click the sheet tab for **Buffalo**.
10. Select cells **B9** through **D15** on the Buffalo sheet.



11. Click on the **Expand Icon** to expand the **Consolidate** dialog box.



12. Click the [**A**dd] button in the dialog box.  
*The **Buffalo** range B9:D15 is added to the **All references:** list.*
13. Click the **Select Icon** once more.
14. Click the sheet tab for **Charlotte**.
15. Verify that cells **B9** through **D15** appear in the reference text box. If not, drag to select cells **B9** through **D15**.
16. Click the **Expand Icon**
17. Click the [**A**dd] button in the dialog box.  
*The **Charlotte** range is added to the **All references:** list.*
18. Repeat these steps to add the **Houston** range to the list.
19. Click [**O**K] to close the **Consolidate** dialog box.  
*The data from the three sheets is consolidated and placed on the **Summary** sheet. Compare your **Summary** sheet with the following illustration.*

	A	B	C	D	E	F	G
1	<b>ABC Computer Supply Company</b>						
2	<b>Projected Units by Plant</b>						
3	<b>1st Quarter</b>						
4							
5	<b>Summary</b>						
6							
7	<b>Product</b>	<b>January</b>	<b>February</b>	<b>March</b>	<b>Total</b>		
8							
9	Monitor (VGA)	60,000	48,000	72,000	180,000		
10	Speakers (Multi-media)	30,000	24,000	36,000	90,000		
11	Modem (Internal)	18,750	15,000	22,500	56,250		
12	Printer (Laser)	41,250	33,000	49,500	123,750		
13	Parallel Cable	3,750	3,000	4,500	11,250		
14	Mouse	24,375	19,500	29,250	73,125		
15	CPU	90,000	72,000	108,000	270,000		
16							
17	<b>Total</b>	<b>268,125</b>	<b>214,500</b>	<b>321,750</b>	<b>804,375</b>		
18							

20. Click on cell **B9**.

*Only the value 60,000 appears in the cell. Notice there is no formula displayed in the Formula Bar.*

21. Save the file.

22. Leave the file open for the next exercise.

## Link the Data

It is possible to link the source data with the consolidated reference. When consolidated data is linked, formulas are generated in the consolidated range in place of values. In this exercise, you will consolidate the same source data but create a link at the same time.

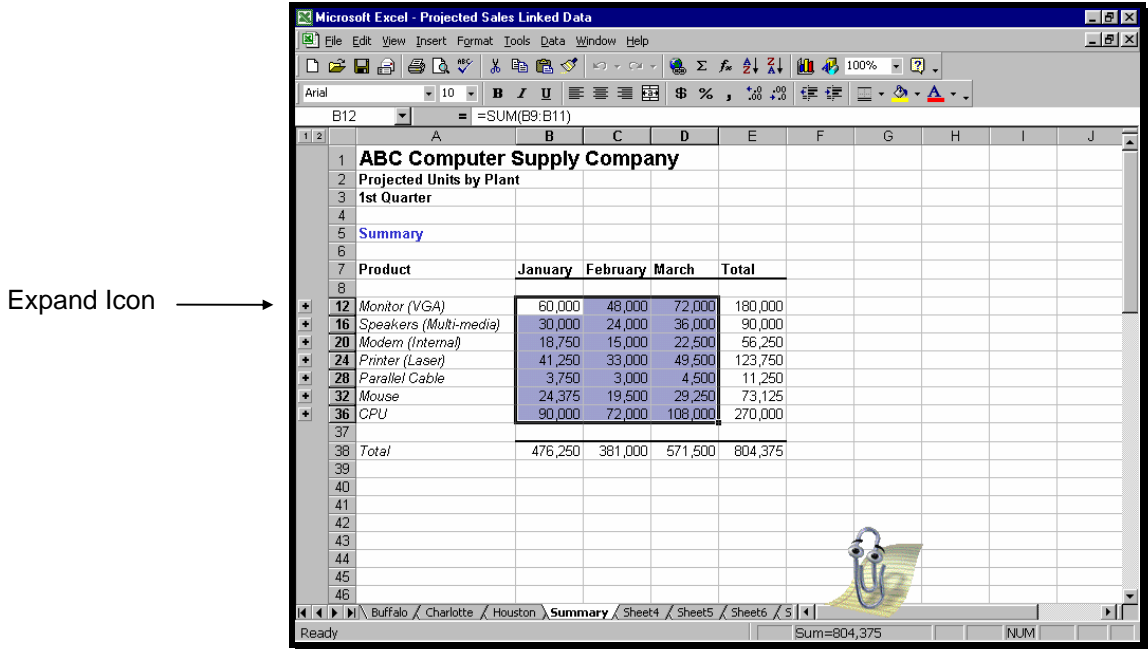
1. The Summary sheet of the **Projected Sales Summary** workbook should still be active.
2. Save the workbook as **Projected Sales Linked Data**.
3. Select cell **B9**.
4. Select **D**ata from the menu bar.
5. Choose **C**onsolidate...

*The range references should be listed in the All references: list.*

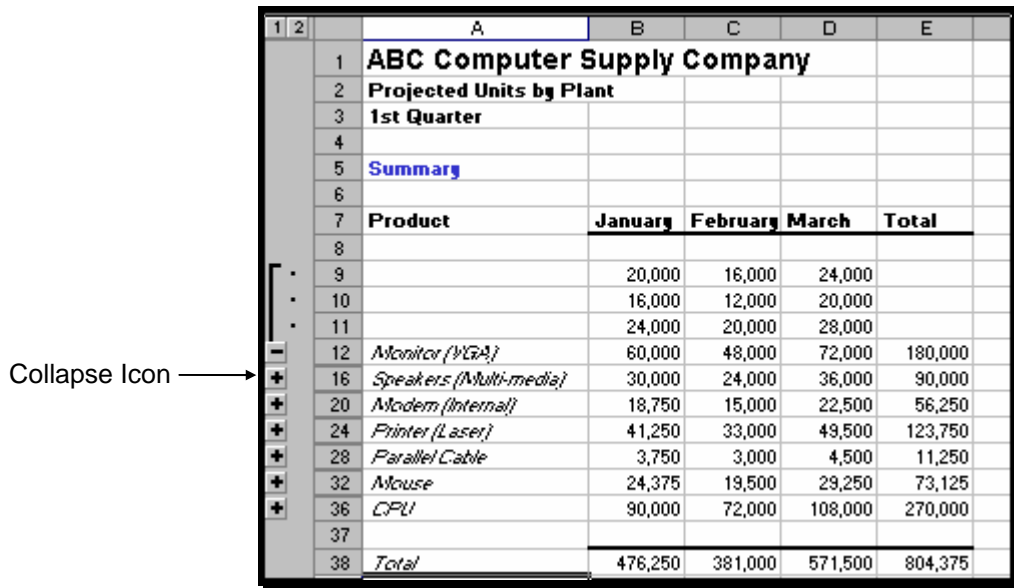
6. Click the **C**reate links to **s**ource data option.
7. Click **[OK]**.

*The sheet is displayed in Outline view.*

8. Click on cell **B9**.



- Click on the plus (expand) icon to the left of row 12.  
*Cells appear in rows 9 through 11 with formulas linking values to each sheet in the workbook.*



- Click on the minus (collapse) icon to the left of row 12.  
*Rows 9 through 11 are hidden from view.*
- Save and close the file.

## Section 2

### Summary Exercises

#### Part One

1. Open the file **Actuators Cost List** from the **Student** folder.
2. Open the file **Garinger Order Form**.
3. Tile the two worksheets horizontally in the window.
4. On the **Garinger Order Form**, create lookup formulas that will pull the desired data from the **Actuators Cost List** file:
  - Create a lookup formula in cell **B5** that will return the Description of the Item No. typed in cell **A5**
  - In cell **C5**, create a lookup formula that will return the Manufacturer's Model No. from the Item No. typed in cell **A5**
  - In cell **D5**, create a lookup formula that will return the cost of the Item No. typed in cell **A5**
5. Type in an item number in cell **A5** (such as 2H487) and type the quantity of **2** in cell **E5**.
6. Compare your order form to that shown below:

Garinger Order Form						
1						
2						Date: 10/20/2003
3						
4	Item No.	Description	Mfr Model #	Cost	Qty	Total
5	2H487	AC Linear Actuator, 12 in/min, 19.75 in	Dayton 2H487	\$ 250.75	2	\$ 501.50
6						
7						
8						
9						
10						
11						
12						
13						
14				Subtotal		\$ 501.50
15				Shipping		\$ 100.30
16				Handling		\$ 100.30
17				Total		\$ 702.10
18				Tax		\$ 52.66
19				Grand Total		\$ 754.76

7. Save the **Garinger Order Form** with the lookup formulas.
8. Change the Item No. in cell **A5**. Verify that the Description, Manufacturer's Model No. and Cost all update to the new item.
9. Display the formulas in the worksheet. What does the nested IF statement in cell **F15** do?

## Part Two

1. The \_\_\_\_\_ command will consolidate data from more than one worksheet in a workbook.
2. Simple formulas and Excel functions can also be used in 3D formulas. These formulas must contain the name of the \_\_\_\_\_ in addition to the \_\_\_\_\_.
3. \_\_\_\_\_ formulas allow a user to reference data in a separate workbook.
4. The parts of a lookup formula are:
  5. A lookup formula can only reference data in the same workbook. ( True / False )
6. Use the \_\_\_\_\_ command to lock or unlock cells on a worksheet.
7. Use the \_\_\_\_\_ command to protect an entire worksheet or workbook.
8. Use the \_\_\_\_\_ command to save a workbook as an Excel template.
9. Once a file is saved as a template, you can access the file from the \_\_\_\_\_ command.
10. If you want to display two files in the Excel window, you can use the \_\_\_\_\_ command.