

EXCEL EXERCISE #8: Consolidating and Linking Spreadsheets

1. Enter the following information onto Sheet1. Double click on the tab for the worksheet and rename it: **East**. (It represents sales in \$1000.)

	A	B	C	D	E	F
1	1997 Record Sales: East Store					
2		First	Second	Third	Fourth	Annual
3		Quarter	Quarter	Quarter	Quarter	Total
4	Pop	254	290	198	354	
5	Soul	154	184	154	290	
6	R&B	290	320	287	456	
7	Country	345	361	258	524	
8	Classical	45	52	12	98	
9	Soundtracks	75	125	157	185	
10	Children	26	19	15	56	
11	TOTAL					

2. Enter the following information onto Sheet2. Double click on the tab for the worksheet and rename it: **West**.

	A	B	C	D	E	F
1	1997 Record Sales: West Store					
2		First	Second	Third	Fourth	Annual
3		Quarter	Quarter	Quarter	Quarter	Total
4	Pop	154	167	142	245	
5	Soul	165	124	225	264	
6	R&B	187	95	254	322	
7	Country	201	210	342	412	
8	Classical	12	21	18	54	
9	Soundtracks	42	34	65	102	
10	Children	20	16	20	45	
11	TOTAL					

3. Enter the following row and column labels onto Sheets 3 and 4. Rename Sheet3: **Consolidate**. Rename Sheet4: **Link**.

	A	B	C	D	E	F
1	1997 Record Sales: Combined Sales					
2		First	Second	Third	Fourth	Annual
3		Quarter	Quarter	Quarter	Quarter	Total
4	Pop					
5	Soul					
6	R&B					
7	Country					
8	Classical					
9	Soundtracks					
10	Children					
11	TOTAL					

4. Highlight the cell ranges B4:F11. Open the FORMAT menu, select CELLS..., select CURRENCY, and select \$1,234. Click on OK. Do this for both the East and West worksheets.

Enter the following formulas in the appropriate cells on both the East and West worksheets.

B11: **=sum(b4:b10)**

Copy the formula in cell B11 to cells C11 through F11.

F4: **=sum(b4:e4)**

Copy the formula in cell F4 to cells F5 through F10.

5. Add another worksheet to your spreadsheet as this exercise has you using four worksheets. Open the INSERT menu, select WORKSHEET. A new worksheet label Sheet4 should be added to your spreadsheet.

6. Click on the tab Consolidate to make it the active worksheet. Open the DATA menu, select the option CONSOLIDATE.

a. Under the "Reference:" option enter the following: **East!b4:f11**

Then click on ADD. This refers to cells B4:F11 on worksheet East.

b. Under the "Reference:" option enter the following: **West!b4:f11**

Then click on ADD. The cell range B4:F11 for both East and West worksheets should be entered in the "All References" box.

c. Click OK.

The worksheet Consolidate should now report the sum of the East and West store sales for each category of music by quarter.

Your worksheet Consolidate should look like the one below.

	A	B	C	D	E	F
1	1997 Record Sales: Combined Sales					
2		First	Second	Third	Fourth	Annual
3		Quarter	Quarter	Quarter	Quarter	Total
4	Pop	\$408	\$457	\$340	\$599	\$1,804
5	Soul	\$319	\$308	\$379	\$554	\$1,560
6	R&B	\$477	\$415	\$541	\$778	\$2,211
7	Country	\$546	\$571	\$600	\$936	\$2,653
8	Classical	\$57	\$73	\$30	\$152	\$312
9	Soundtracks	\$117	\$159	\$222	\$287	\$785
10	Children	\$46	\$35	\$35	\$101	\$217
11	TOTAL	\$1,970	\$2,018	\$2,147	\$3,407	\$9,542

7. Click on the tab for **Link** to make this the active worksheet. Click on the white box to the left of “Create links to source data.” Follow the steps a.-c. laid out in step 5 above.

Your Link worksheet should look like the one below.

	A	B	C	D	E	F
1	1997 Record Sales: Combined Sales					
2		First	Second	Third	Fourth	Annual
3		Quarter	Quarter	Quarter	Quarter	Total
6	Pop	\$408	\$457	\$340	\$599	\$1,804
9	Soul	\$319	\$308	\$379	\$554	\$1,560
12	R&B	\$477	\$415	\$541	\$778	\$2,211
15	Country	\$546	\$571	\$600	\$936	\$2,653
18	Classical	\$57	\$73	\$30	\$152	\$312
21	Soundtracks	\$117	\$159	\$222	\$287	\$785
24	Children	\$46	\$35	\$35	\$101	\$217
27	TOTAL	\$1,970	\$2,018	\$2,147	\$3,407	\$9,542

8. The difference in this second merged worksheet is that after it is created, any changes in the East and West worksheets will be updated on the Link worksheet. Modify some of the figures on the East or West worksheet and see how the numbers on the Link worksheet are updated but the numbers on the Consolidate worksheet are still the same.

Using ChartWizard to Create a Chart for the Total Annual Sales:

9. Create a pie chart using the Annual Totals from the Link worksheet. Create a chart for the total combined annual sales as reported on the Link worksheet.. Since the two columns of information you are to use for this chart are not next to each other, the cell range to be graphed must be highlighted in the following manner. Click on cell B4 and drag the cursor to cell B10 (the range B4:B10 should now be highlighted). Release the

left mouse button and move the cursor to cell F4. Before you click the left mouse button on cell F4, press and hold down the CTRL on your keyboard. Now you are ready to highlight the cell range F4:F10. (If you try to select the cell range F4:F10 without simultaneously holding down the CTRL key, the first range of cells will no longer be selected.)

10. Open the INSERT menu. Select the CHART option.

11. Respond as follows to the steps in ChartWizard as prompted.

Step 1: Chart Type

Select Pie. A set of pie chart should appear on the screen. Click on the left most pie chart in the top row. Once you have selected the type of pie chart you would like, click on NEXT.

Step 2: Chart Source Data

If the cell range for the data and the series source are correct, then click on NEXT.

Step 3: Chart Options

a. With the tab “Titles” highlighted, type in the following information next to each of the title options.

Chart title: **Total Company Annual Music Sales: 1997**

b. Click on the “Legend” tab. Since only one variable is graphed, turn off the legend. Click on the check mark to the left of the “Show Legend” option. The check mark should disappear.

c. Click on the “Data Labels” tab. Why don’t we show the category labels and percent of each category above right on the chart. Point the cursor arrow to the empty circle to the left of “Show label and percent” and click.

d. After you have selected the chart options you want, click on NEXT.

Step 4: Chart Location

Click on the empty circle to the left of the “As new sheet” option. The text bar to the right of this option with the word “Chart1” should now be highlighted. Give the sheet that the chart will appear on a more descriptive label. Type “Total Pie” and click on FINISH.

Your chart should look like the one on an attached page.

12. To return to your worksheet, click on the tab at the bottom of the screen labeled **Link**. Modify some of the data on the West worksheet. There has been an accounting error which resulted in the music sales for the Pop category to have been underreported by \$100,000 each quarter. Enter the following data into the West worksheet.

B4: **254**

C4: **267**

D4: **242**

E4: **345**

Notice how the combined figures on the Link worksheet have been updated. Now click on the tab **Total Pie** to view the pie chart. The chart that was created off of the Link worksheet has also been updated. Before the data change in step 12 was entered, Pop music accounted for 19% of all company sales, now it accounts for 22% of all music sales.

13. Import this chart into a Microsoft Word document. Create the memo on the next page. Return to the Excel document and click on the tab Total Pie to make this the active worksheet. Click on the pie chart. You should see several small black boxes appear around the border of the pie chart. Click on the Copy button on the tool bar. Access the memo you created in Microsoft Word. Open the EDIT menu, select PASTE SPECIAL..., click on the empty white circle next to "Paste Link," and select PICTURE from the options in the middle of the Paste Special window. The chart should appear on your spreadsheet like the one below.

14. Modify some of the data in the original East worksheet (in Excel). You will notice that not only is the Link worksheet automatically updated to reflect these changes, but so is the pie chart you have exported to your Word memo.

15. Save your spreadsheet with the name **A:CONSOLID.XLS**

Numbers Accounting Inc.
Knoxville, TN

MEMORANDUM

DATE: Today
TO: Mr. C. E. Oliver
FROM: You
RE: 1997 Annual Sales

Your company has had another excellent financial year. Listed below is a chart that provides the total 1997 annual sales for both stores.

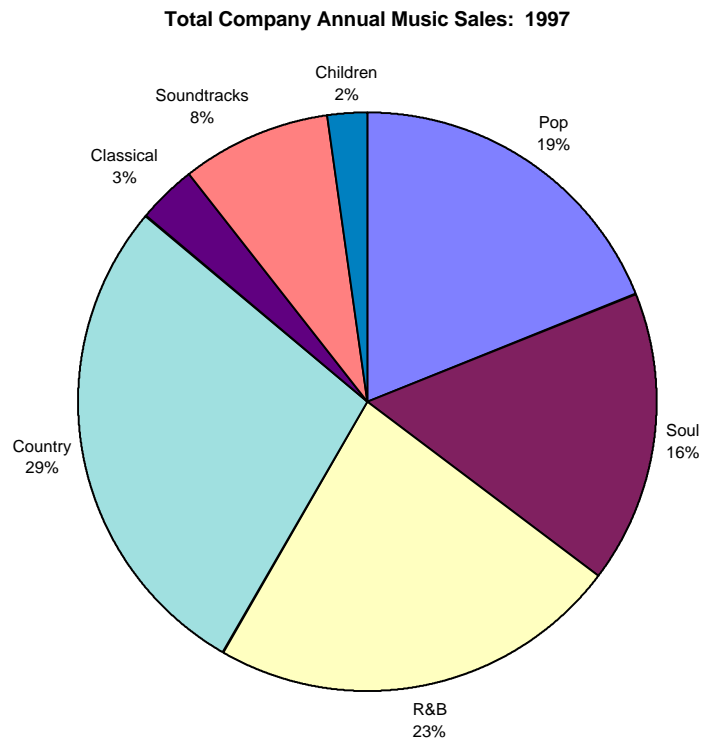
If you request additional information, please do not hesitate to contact us.

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