

# Composing Rock 'n' Roll Stories from the Usage Data Blues

Excel, live in concert: Consolidate similar information

(Please note that these instructions were developed with Excel 2003 for Windows)

Using this tool, you can solve a common problem:

“How can I quickly total a year of data from monthly worksheets?”

## Consolidating data takes too long!

Libraries often gather usage data in monthly or quarterly increments. When it's time to get a picture of an entire year's usage data, someone is usually stuck with the laborious manual task of bringing together and totaling information scattered across many different files. Under the right circumstances, Excel can do this onerous chore for you.

## When can I use the Consolidate Data feature?

There are several requirements for successful data consolidation with Excel:

- Data attributes are the same, but values are different
  - Example: Monthly usage of *Journal of Questionable Results*
- Data is saved in one or more Excel spreadsheets or worksheets
  - Example: One Excel spreadsheet containing a worksheet (tab) for each month of usage data in one year
- The results you want can be achieved with Excel's mathematical and statistical functions:
  - Examples: Sum, Count, Average, Max, Min, etc.

## What else do I need to know?

- Data that you're going to consolidate does NOT have to be in the same order on every spreadsheet or worksheet
- Each data element must have the same name in all originating files to be consolidated correctly:
  - *Journal of Questionable Results* and *The Journal of Questionable Results* will not consolidate
  - If you are importing monthly or quarterly data into Excel, don't edit data elements' names. You're much more likely to have consistent files you can consolidate at the end of the year.
  - If you must edit names, use a system that helps you enforce consistency.
- Excel creates references to data in other spreadsheets when you consolidate data. If you consolidate and then move the original files, you'll need to update the consolidated data's references.

## How can I consolidate some of my data?

- Identify the data you want to consolidate
  - In these screenshots, we'll be consolidating SFX data about monthly target usage
  - Part 1 demonstrates consolidating data saved in different worksheets (tabs) within one spreadsheet
  - Part 2 demonstrates consolidating data saved in different spreadsheets

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## Part 1: Consolidating worksheets within one spreadsheet

(Please note that these instructions were developed with Excel 2003 for Windows)

### Part 1: Instructions for consolidating worksheets within one spreadsheet

1. Open the file containing the originating data:

	A	B
1	<b>Query 7: Number of Clickthroughs per Target, limit to 100</b>	<b>Clickthroughs</b>
2	Target	
3	Total:	19461
4	AIP_SCITATION_AMERICAN_ASSOC_OF_PHYSICS_	9
5	AIP_SCITATION_AMERICAN_INSTITUTE_OF_PHYS	132
6	AIP_SCITATION_AMERICAN_SOCIETY_OF_CIVIL_	35
7	AMAZON	25
8	AMERICAN_CHEMICAL_SOCIETY_JOURNALS	546
9	AMERICAN_CHEMICAL_SOCIETY_LEGACY_ARCHIVE	20
10	AMERICAN_PHYSICAL_SOCIETY_JOURNALS	21
11	AMERICAN_PHYSICAL_SOCIETY_PROLA	41
12	ANNUAL_REVIEWS_BACK_VOLUME_COLLECTION	13
13	ANNUAL_REVIEWS_COMPLETE	39
14	ASK_A_LIBRARIAN_LOCAL	50
15	ASSOCIATION_FOR_COMPUTING_MACHINERY_ACM	24
16	BIO_ONE_1	177
17	BIOMED_CENTRAL_OPEN_ACCESS_FREE	24
18	CAMBRIDGE_UNIVERSITY_PRESS_JOURNALS_COMPLETE	60
19	CHADWYCK_IIMP	73
20	CHADWYCK_LITERATURE_ONLINE	25
21	CINII_FREE	46
22	CSA_PSYCARTICLES	162
23	DOAJ_DIRECTORY_OPEN_ACCESS_JOURNALS_FREE	273
24	DOCDEL_ILLIAD	2012
25	EBSCOHOST_CINAHL_WITH_FULL_TEXT	170
26	EBSCOHOST_COMM_MASS_MEDIA_COMPLETE	101
27	EBSCOHOST_HOSPITALITY_TOURISM_COMPLETE	23
28	ELSEVIER_SD_CELL_PRESS	26
29	ELSEVIER_SD_ELSEVIER	1101
30	ELSEVIER_SD_SCIENCE_DIRECT_COMPLETE	10
31	EMERALD	63
32	GALEGROUP_ACADEMIC_ONFILE	63
33	GALEGROUP_GN_BUSINESS_COMPANY_RESOURCE_	113

2008-07 / 2008-08 / 2008-09 / 2008-10 / 2008-11 / 2008-12 / 2009-01

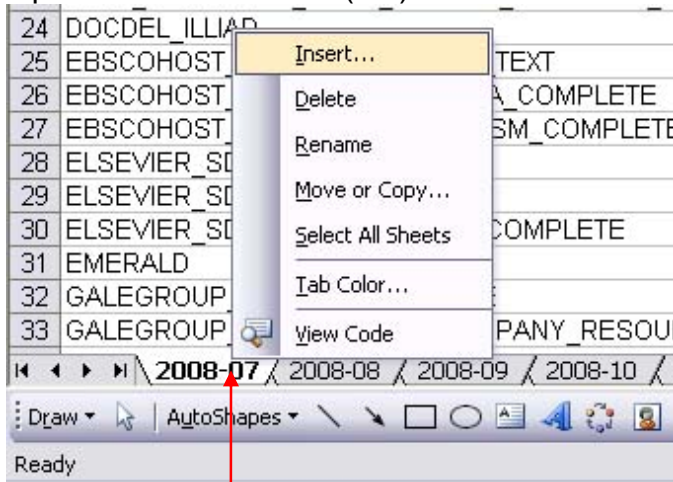
# Composing Rock 'n' Roll Stories from the Usage Data Blues

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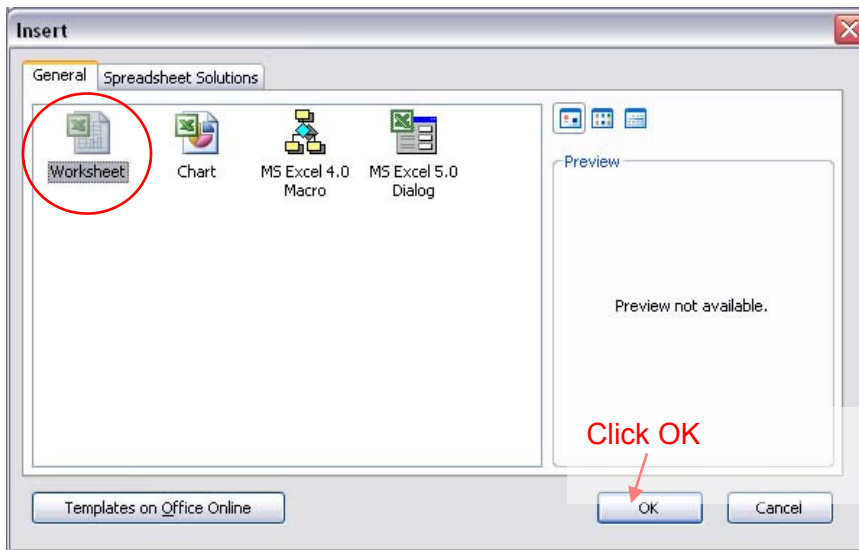
## Part 1: Consolidating worksheets within one spreadsheet

(Please note that these instructions were developed with Excel 2003 for Windows)

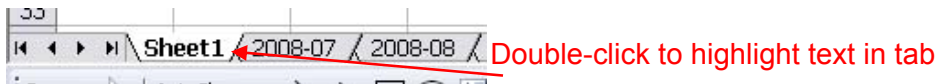
2. Open a new worksheet (tab) for the consolidated data:



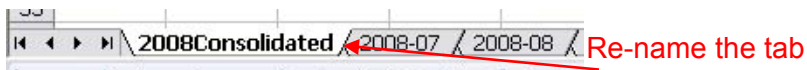
Right-click



Click OK



Double-click to highlight text in tab



Re-name the tab

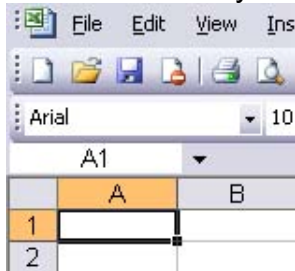
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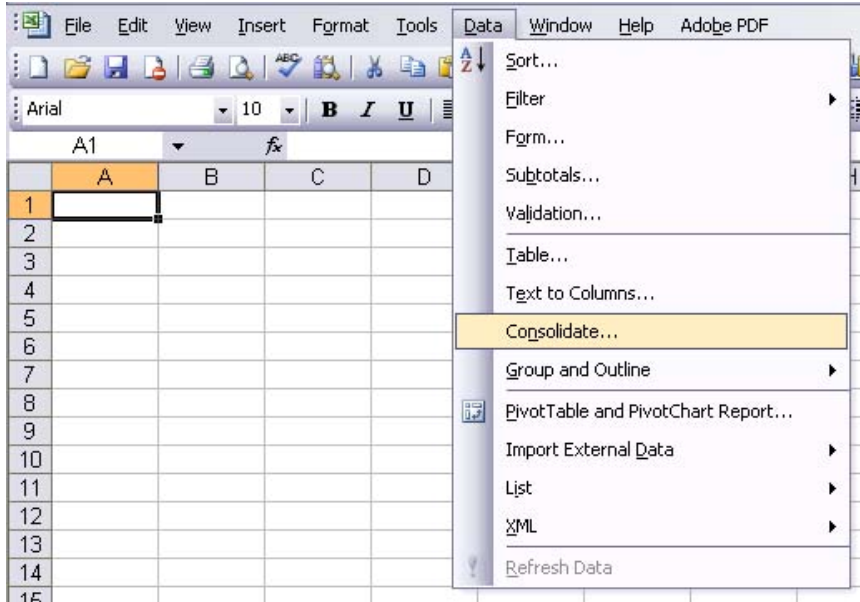
## Part 1: Consolidating worksheets within one spreadsheet

(Please note that these instructions were developed with Excel 2003 for Windows)

3. In the new worksheet (tab), highlight the A1 cell. The consolidated data will land here when you're finished:



4. Choose Data from the menu bar, then choose Consolidate...:



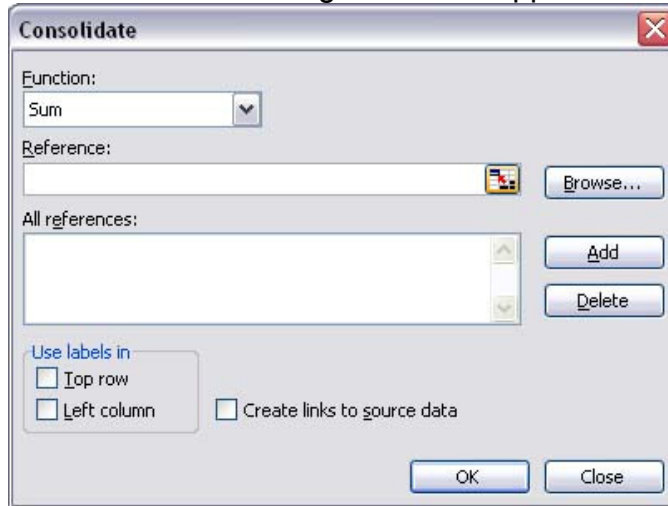
# Composing Rock 'n' Roll Stories from the Usage Data Blues

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Part 1: Consolidating worksheets within one spreadsheet

(Please note that these instructions were developed with Excel 2003 for Windows)

5. The Consolidate dialogue box will appear:



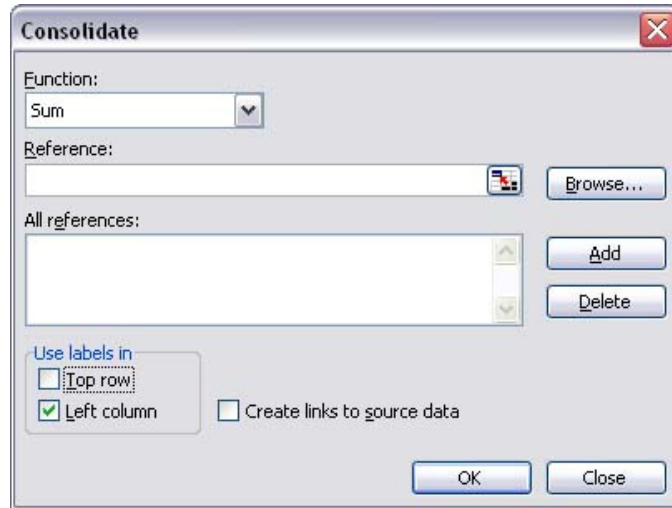
6. In the Consolidate dialogue box, first choose your preferences:
  - a. Select the function you want Excel to perform on the data:
    - i. "Sum" is the most common, but others are available.
    - ii. Experiment with other functions as you get comfortable with the Consolidate Data feature.
    - iii. We will select "Sum."
  - b. Select which data labels you want Excel to use in consolidating the data:
    - i. "Top row" will summarize the data contained under labels in the top row of the original worksheets or spreadsheets
    - ii. "Left column" will summarize the data contained beside labels in the left column of the original worksheets or spreadsheets.
    - iii. You can select both; you must select at least one. What you choose here affects how your data will be consolidated; experiment with these choices to fully understand what they do.
    - iv. We will select "Left column"
  - c. Select whether you want Excel to create references to the original data:
    - i. Choose this option when you are consolidating data that will change after consolidation. Excel will detect the changes and update the consolidated data the next time you open it. If you move the original files, you will need to update the references in the consolidated file.
    - ii. Don't choose this option if the data you're working with will not change after consolidation. Most usage data falls into this category – once it's reported, it stays the same. Likewise, don't choose this option if you will be sharing the consolidated file with colleagues who don't have access to the original files.
    - iii. We will not choose this option.

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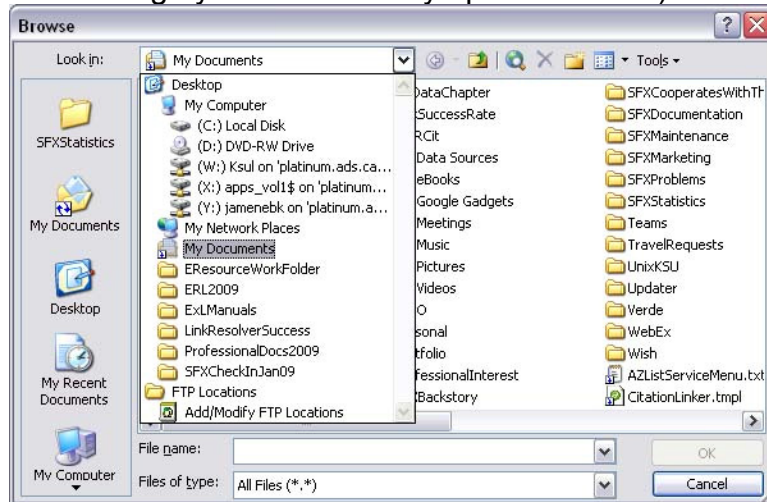
Excel, live in concert: Consolidate similar information

## Part 1: Consolidating worksheets within one spreadsheet

(Please note that these instructions were developed with Excel 2003 for Windows)



7. Now tell the Consolidate tool which files you want to get data from:
  - a. Click the Browse... button to browse to the file you want (you must do this even though you have already opened the file):





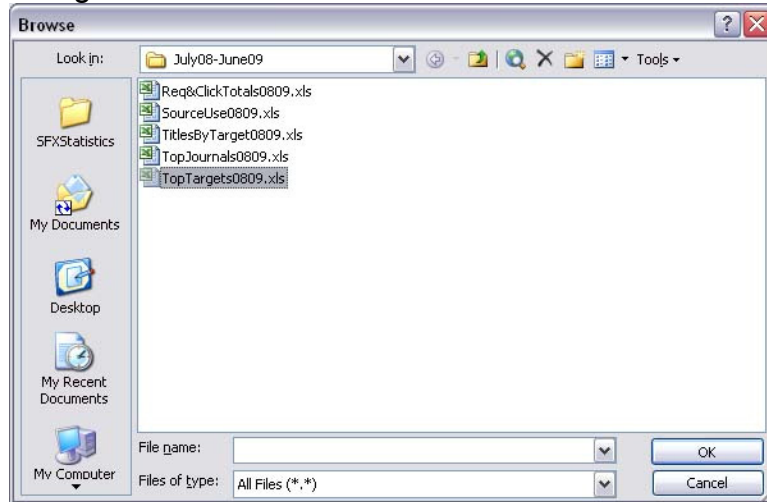
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Part 1: Consolidating worksheets within one spreadsheet

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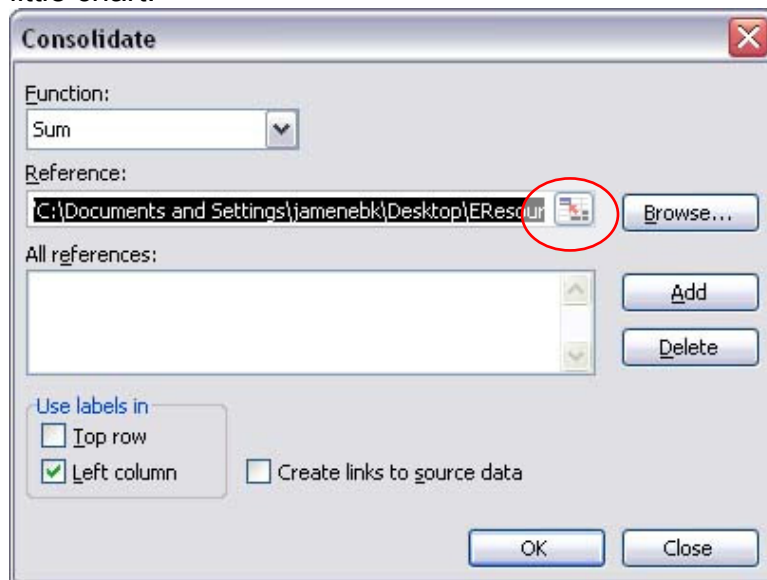
b. Navigate to the file and click OK:



c. The name and full path of the document should now be visible in the "Reference" line.

8. Add references to the data you want to consolidate:

a. Just to the right of the "Reference" line, click the button that looks like a little chart:



b. The Consolidate dialog box will shrink, and you will be able to move around in the open document:

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Part 1: Consolidating worksheets within one spreadsheet

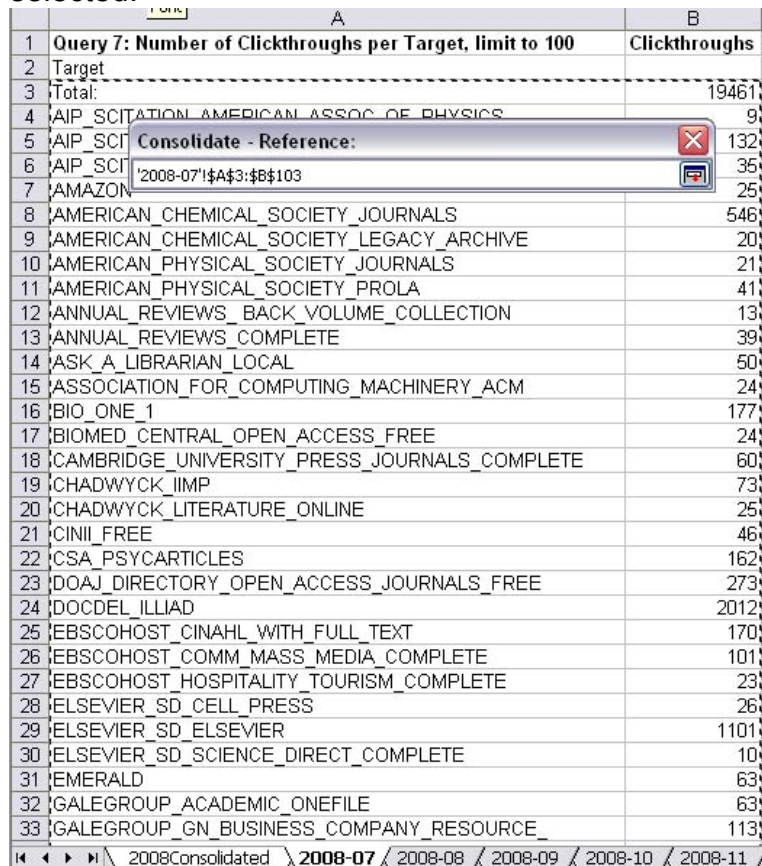
(Please note that these instructions were developed with Excel 2003 for Windows)



- c. With the Consolidate – Reference window open, navigate to the first worksheet. The Reference line will change to include the name of that worksheet:



- d. Highlight the cells you want included in the consolidation – usually this includes all cells with data and the data's labels. The Consolidate – Reference window will change to include the range of cells you've selected:





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Part 1: Consolidating worksheets within one spreadsheet

(Please note that these instructions were developed with Excel 2003 for Windows)

- e. When the selected range of cells is correct, click the button that looks like a window with an arrow to the right of the Consolidate – Reference text:



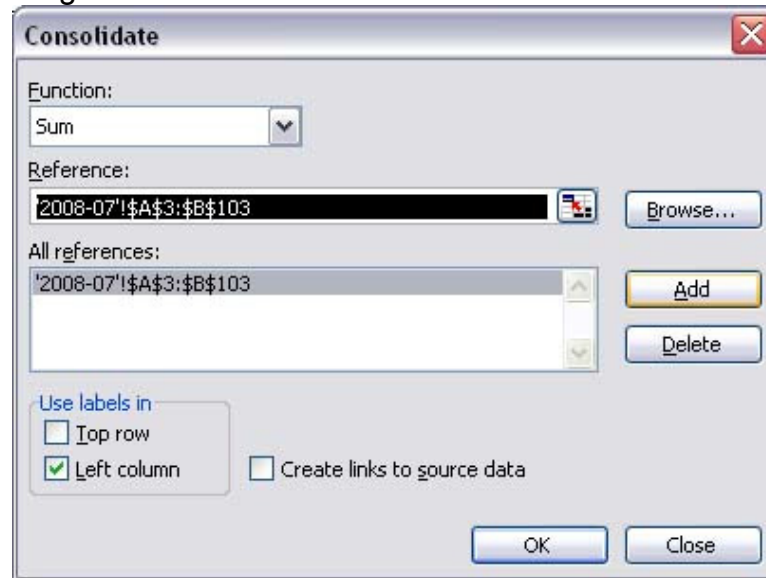
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Part 1: Consolidating worksheets within one spreadsheet

(Please note that these instructions were developed with Excel 2003 for Windows)

- f. The Consolidate dialog box will reappear. Click the Add button to add that range of cells to the list of items to be consolidated:



9. To obtain data from other worksheets within the open spreadsheet, repeat the process detailed in step 8 as often as necessary:
  - a. Click the little chart button
  - b. Choose a different worksheet (tab)
  - c. Highlight the cells you need
  - d. Click the little window button
  - e. Click Add to add the cells to the list of references

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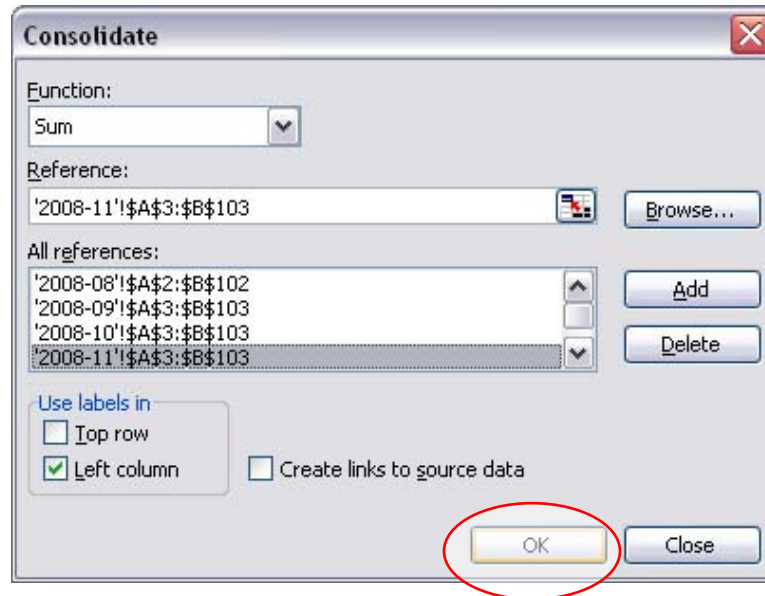
Excel, live in concert: Consolidate similar information

Part 1: Consolidating worksheets within one spreadsheet

(Please note that these instructions were developed with Excel 2003 for Windows)

10. Consolidate the data you've gathered references for:

- a. When you have references to each worksheet that needs consolidation, click OK:



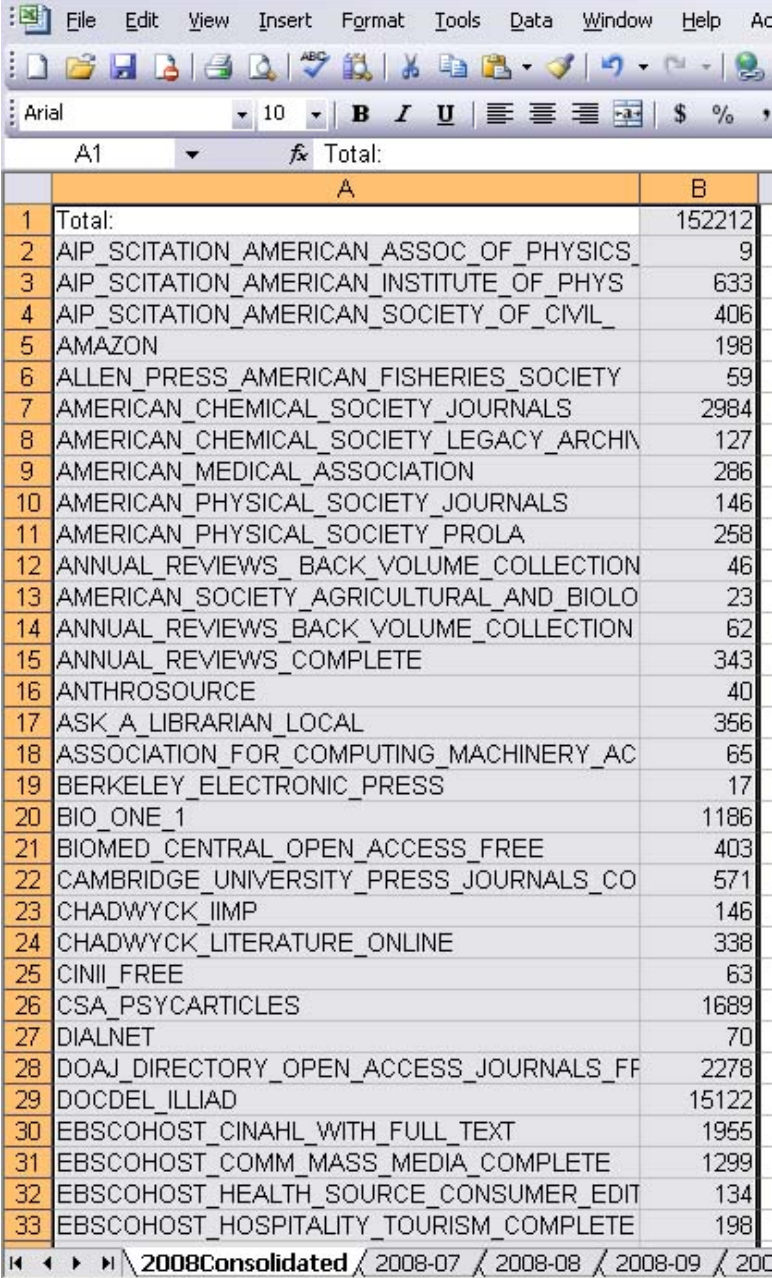
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## Part 1: Consolidating worksheets within one spreadsheet

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- b. The consolidated data will appear beginning in cell A1 of the new worksheet you opened in step 2:



	A	B
1	Total:	152212
2	AIP_SCITATION_AMERICAN_ASSOC_OF_PHYSICS	9
3	AIP_SCITATION_AMERICAN_INSTITUTE_OF_PHYS	633
4	AIP_SCITATION_AMERICAN_SOCIETY_OF_CIVIL_	406
5	AMAZON	198
6	ALLEN_PRESS_AMERICAN_FISHERIES_SOCIETY	59
7	AMERICAN_CHEMICAL_SOCIETY_JOURNALS	2984
8	AMERICAN_CHEMICAL_SOCIETY_LEGACY_ARCHIV	127
9	AMERICAN_MEDICAL_ASSOCIATION	286
10	AMERICAN_PHYSICAL_SOCIETY_JOURNALS	146
11	AMERICAN_PHYSICAL_SOCIETY_PROLA	258
12	ANNUAL_REVIEWS_BACK_VOLUME_COLLECTION	46
13	AMERICAN_SOCIETY_AGRICULTURAL_AND_BIOLO	23
14	ANNUAL_REVIEWS_BACK_VOLUME_COLLECTION	62
15	ANNUAL_REVIEWS_COMPLETE	343
16	ANTHROSOURCE	40
17	ASK_A_LIBRARIAN_LOCAL	356
18	ASSOCIATION_FOR_COMPUTING_MACHINERY_AC	65
19	BERKELEY_ELECTRONIC_PRESS	17
20	BIO_ONE_1	1186
21	BIOMED_CENTRAL_OPEN_ACCESS_FREE	403
22	CAMBRIDGE_UNIVERSITY_PRESS_JOURNALS_CO	571
23	CHADWYCK_IIMP	146
24	CHADWYCK_LITERATURE_ONLINE	338
25	CINII_FREE	63
26	CSA_PSYCARTICLES	1689
27	DIALNET	70
28	DOAJ_DIRECTORY_OPEN_ACCESS_JOURNALS_FF	2278
29	DOCDEL_ILLIAD	15122
30	EBSCOHOST_CINAHL_WITH_FULL_TEXT	1955
31	EBSCOHOST_COMM_MASS_MEDIA_COMPLETE	1299
32	EBSCOHOST_HEALTH_SOURCE_CONSUMER_EDIT	134
33	EBSCOHOST_HOSPITALITY_TOURISM_COMPLETE	198

If the consolidation process does not give the results you expected, try again using other labels (“Top row” or “Left column”), or use a smaller set of data. This is a complex

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process that will take you some time to master. Be forgiving and allow yourself plenty of time to practice.

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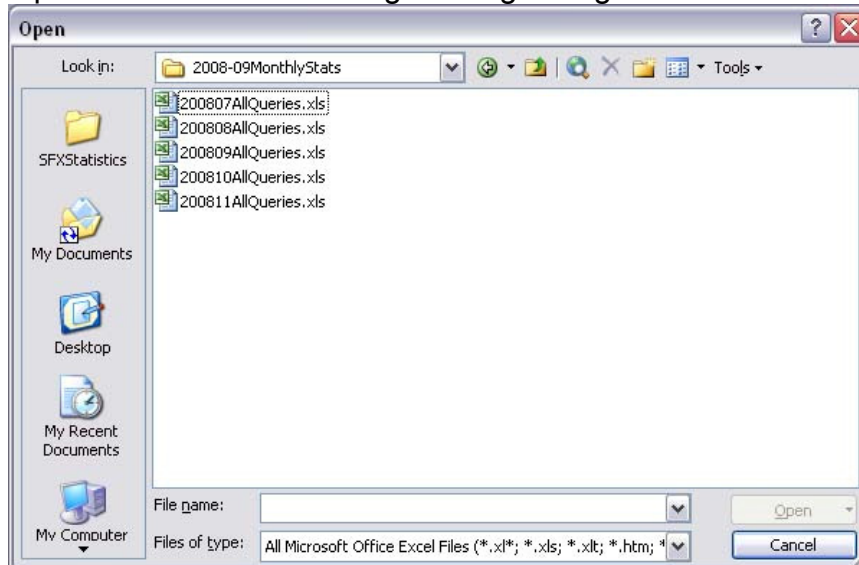
Excel, live in concert: Consolidate similar information

## Part 2: Consolidating different spreadsheets

(Please note that these instructions were developed with Excel 2003 for Windows)

### Part 2: Instructions for consolidating data contained in different spreadsheets:

1. Open all the files containing the originating data:

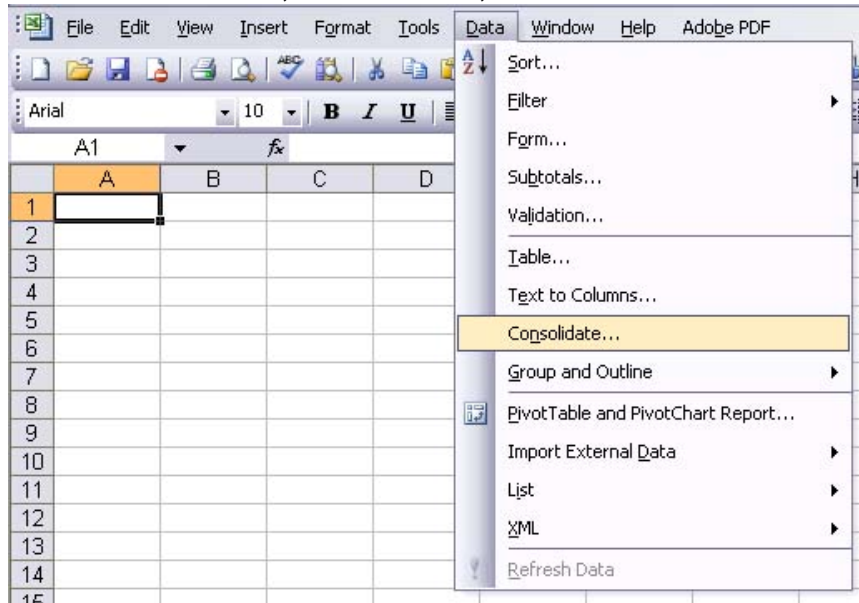


2. Open a new spreadsheet for the consolidated data.

Save the spreadsheet.

Highlight cell A1 – the consolidated data will land here when you're finished.

From the Menu bar, choose Data, then choose Consolidate...:





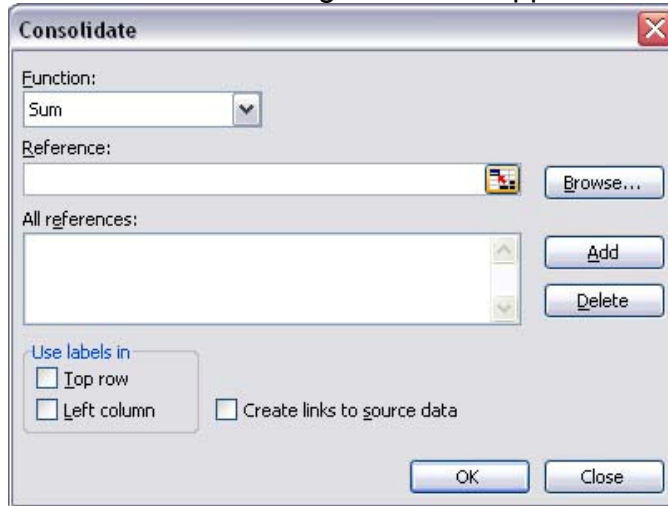
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Excel, live in concert: Consolidate similar information

## Part 2: Consolidating different spreadsheets

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### 3. The Consolidate dialogue box will appear:



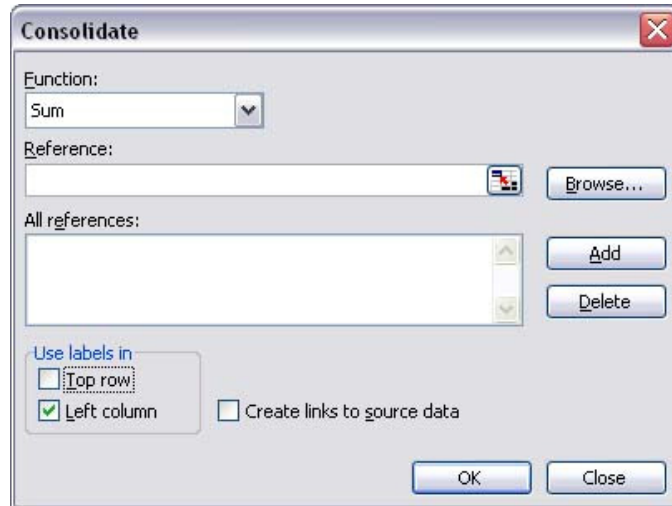
4. In the Consolidate dialogue box, first choose your preferences:
  - a. Select the function you want Excel to perform on the data:
    - i. "Sum" is the most common, but others are available.
    - ii. Experiment with other functions as you get comfortable with the Consolidate Data feature.
    - iii. We will select "Sum."
  - b. Select which data labels you want Excel to use in consolidating the data:
    - i. "Top row" will summarize the data contained under labels in the top row of the original worksheets or spreadsheets
    - ii. "Left column" will summarize the data contained beside labels in the left column of the original worksheets or spreadsheets.
    - iii. You can select both; you must select at least one. What you choose here affects how your data will be consolidated; experiment with these choices to fully understand what they do.
    - iv. We will select "Left column"
  - c. Select whether you want Excel to create references to the original data:
    - i. Choose this option when you are consolidating data that will change after consolidation. Excel will detect the changes and update the consolidated data the next time you open it. If you move the original files, you will need to update the references in the consolidated file.
    - ii. Don't choose this option if the data you're working with will not change after consolidation. Most usage data falls into this category – once it's reported, it stays the same. Likewise, don't choose this option if you will be sharing the consolidated file with colleagues who don't have access to the original files.
    - iii. We will not choose this option.

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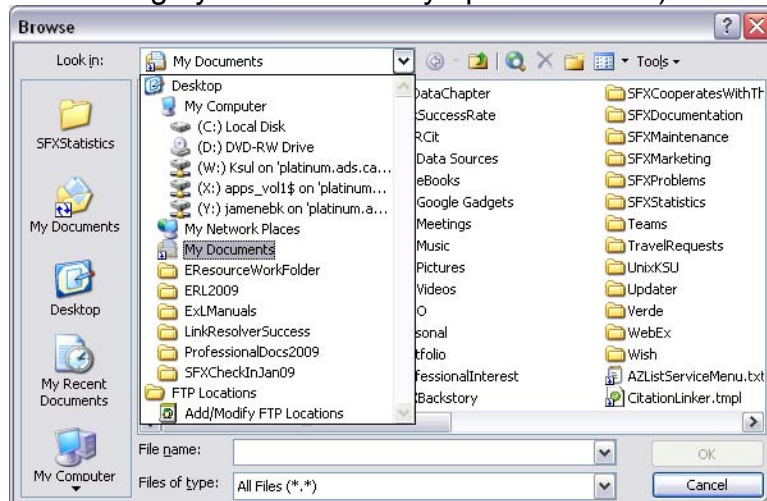
Excel, live in concert: Consolidate similar information

## Part 2: Consolidating different spreadsheets

(Please note that these instructions were developed with Excel 2003 for Windows)



5. Now tell the Consolidate tool which files you want to get data from:
  - a. You will be telling the tool about only one file at a time
  - b. Click the Browse... button to browse to the file you want (you must do this even though you have already opened the file):



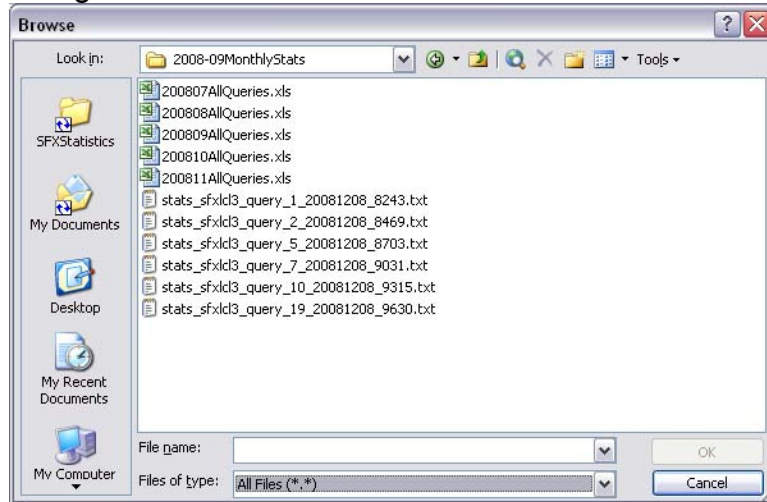
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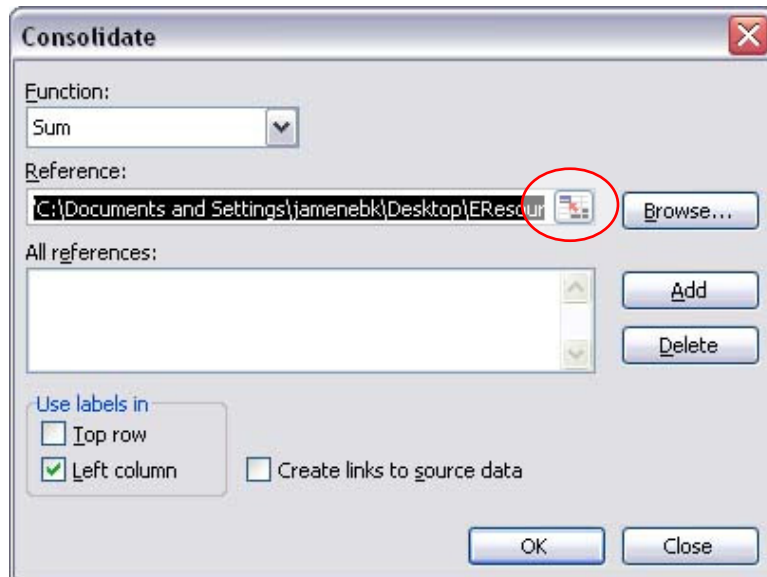
- c. Navigate to the file and click OK:



- d. The name and full path of the document should now be visible in the "Reference" line.

6. Add references to the data you want to consolidate:

- a. Just to the right of the "Reference" line, click the button that looks like a little chart:



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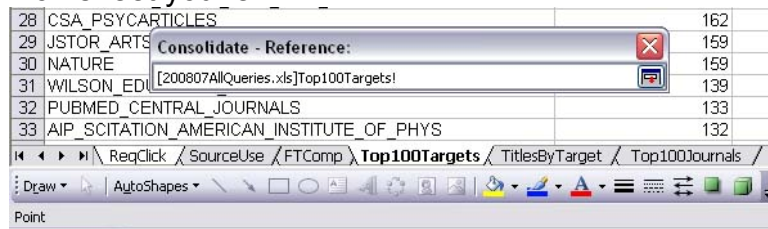
## Part 2: Consolidating different spreadsheets

(Please note that these instructions were developed with Excel 2003 for Windows)

- b. The Consolidate dialog box will shrink, and you will be able to move to the other open documents:



- c. With the Consolidate – Reference window open, navigate to the open spreadsheet you told the Consolidate tool about in step 5. If applicable, navigate to the worksheet you want within this spreadsheet. The Reference line will change to include the name of the spreadsheet and worksheet you're in:



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## Part 2: Consolidating different spreadsheets

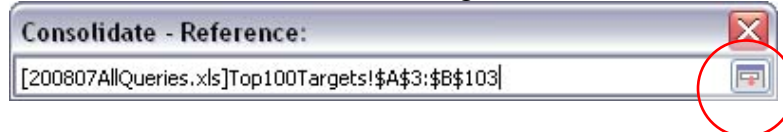
(Please note that these instructions were developed with Excel 2003 for Windows)

- d. Highlight the cells you want included in the consolidation – usually this includes all cells with data and the data's labels. The Consolidate – Reference window will change to include the range of cells you've selected:

	A	B
1	<b>Query 7: Number of Clickthroughs per Target, limit to 100</b>	
2	Target	Clickthroughs 2008-07
3	Total:	19461
4	LOCAL_CATALOG_EXLIBRIS_VOYAGER	2499
5	DOCDEL_ILLIAD	2012
6	LOCAL_CATALOGUE_ENDEAVOR_VOYAGER	1299
7	SYNERGY_BLACKWELL_PREMIUM	1163
8	ELSEVIER_S	1101
9	PROQUEST_I	963
10	SPRINGER_L	813
11	GALEGROUP_IT_EXPANDED_ACADEMIC_ASAP	704
12	REFWORKS_EXPORT_TOOL	632
13	WILEY_INTERSCIENCE_JOURNALS	550
14	AMERICAN_CHEMICAL_SOCIETY_JOURNALS	546
15	MISCELLANEOUS_EJOURNALS	456
16	MISCELLANEOUS_FREE_EJOURNALS	435
17	SAGE_COMPLETE	429
18	ISI_RESEARCHSOFT_EXPORT_TOOL	427
19	HIGHWIRE_PRESS_FREE	353
20	DOAJ_DIRECTORY_OPEN_ACCESS_JOURNALS_FREE	273
21	INFORMAWORLD_JOURNALS	229
22	JSTOR_ARTS_AND_SCIENCES_1	227
23	JSTOR_BIOLOGICAL_SCIENCES_COLLECTION	182
24	BIO_ONE_1	177
25	PROQUEST_ABI_INFORM_GLOBAL	175
26	LEXISNEXIS_ACADEMIC	174
27	EBSCOHOST_CINAHL_WITH_FULL_TEXT	170
28	CSA_PSYCARTICLES	162
29	JSTOR_ARTS_AND_SCIENCES_4	159
30	NATURE	159
31	WILSON_EDUCATION_INDEX	139
32	PUBMED_CENTRAL_JOURNALS	133
33	AJP_SCITATION_AMERICAN_INSTITUTE_OF_PHYS	132

Consolidate - Reference: [200807AllQueries.xls]Top100Targets!\$A\$3:\$B\$103

- e. When the selected range of cells is correct, click the button that looks like a window with an arrow to the right of the Consolidate – Reference text:



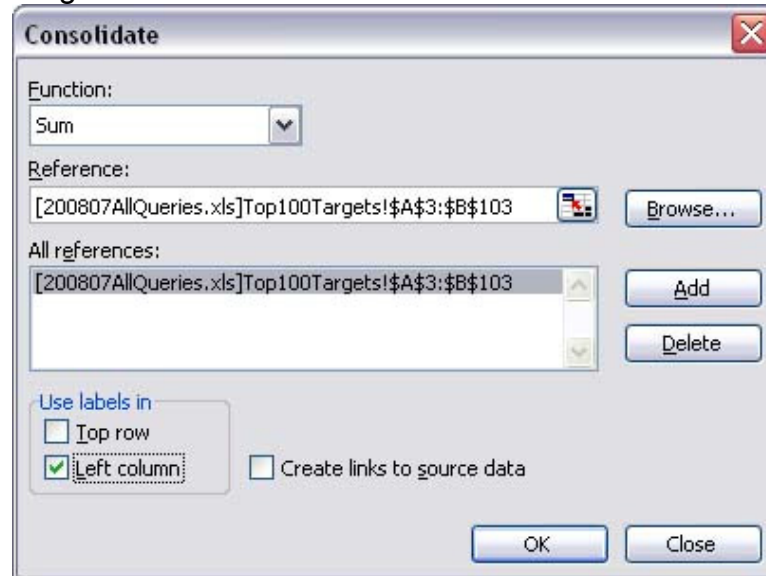
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### Part 2: Consolidating different spreadsheets

(Please note that these instructions were developed with Excel 2003 for Windows)

- f. The Consolidate dialog box will reappear. Click the Add button to add that range of cells to the list of items to be consolidated:



7. Obtain data from other spreadsheets that you opened in step 1 by repeating the process detailed in step 6 as often as necessary:
  - a. Within the same Consolidate dialogue box, click Browse to select a different file (make sure that file is already open)
  - b. Click the little chart button
  - c. Navigate to the open spreadsheet and choose the worksheet (tab) you need
  - d. Highlight the cells you need
  - e. Click the little window button
  - f. Click Add to add the cells to the list of references



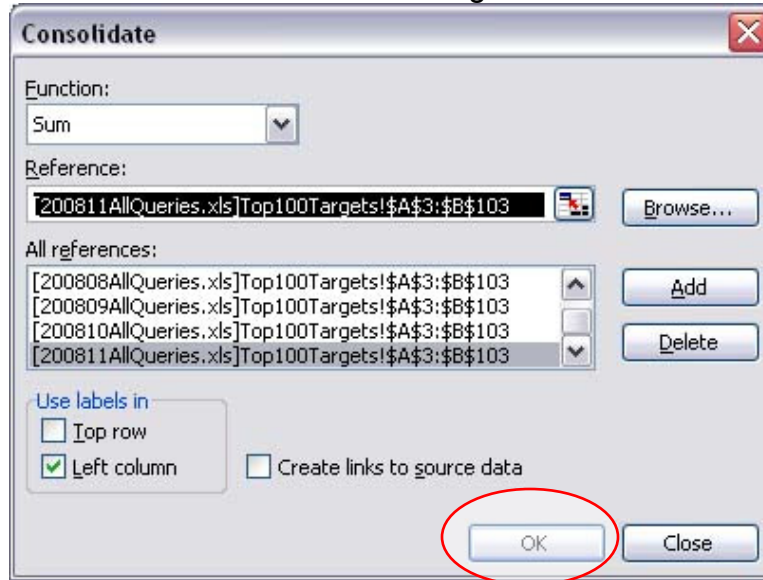
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(Please note that these instructions were developed with Excel 2003 for Windows)

8. Consolidate the data you've gathered references for:
  - a. When you have references to each spreadsheet that needs consolidation, click OK in the Consolidate dialogue box:



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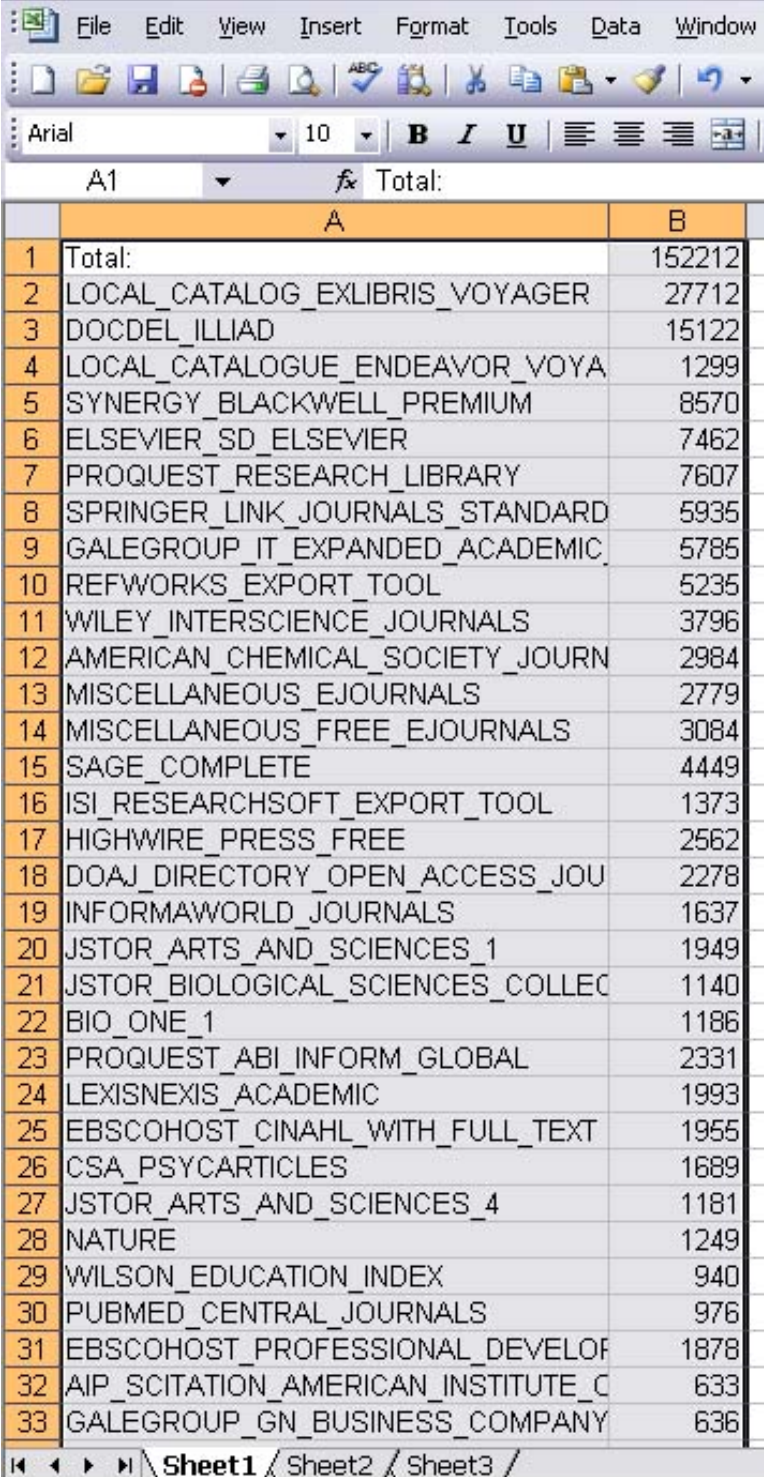
- b. The consolidated data will appear beginning in cell A1 of the new spreadsheet you opened in step 2:

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## Part 2: Consolidating different spreadsheets

(Please note that these instructions were developed with Excel 2003 for Windows)



	A	B
1	Total:	152212
2	LOCAL_CATALOG_EXLIBRIS_VOYAGER	27712
3	DOCDEL_ILLIAD	15122
4	LOCAL_CATALOGUE_ENDEAVOR_VOYA	1299
5	SYNERGY_BLACKWELL_PREMIUM	8570
6	ELSEVIER_SD_ELSEVIER	7462
7	PROQUEST_RESEARCH_LIBRARY	7607
8	SPRINGER_LINK_JOURNALS_STANDARD	5935
9	GALEGROUP_IT_EXPANDED_ACADEMIC	5785
10	REFWORKS_EXPORT_TOOL	5235
11	WILEY_INTERSCIENCE_JOURNALS	3796
12	AMERICAN_CHEMICAL_SOCIETY_JOURN	2984
13	MISCELLANEOUS_EJOURNALS	2779
14	MISCELLANEOUS_FREE_EJOURNALS	3084
15	SAGE_COMPLETE	4449
16	ISI_RESEARCHSOFT_EXPORT_TOOL	1373
17	HIGHWIRE_PRESS_FREE	2562
18	DOAJ_DIRECTORY_OPEN_ACCESS_JOU	2278
19	INFORMAWORLD_JOURNALS	1637
20	JSTOR_ARTS_AND_SCIENCES_1	1949
21	JSTOR_BIOLOGICAL_SCIENCES_COLLEC	1140
22	BIO_ONE_1	1186
23	PROQUEST_ABI_INFORM_GLOBAL	2331
24	LEXISNEXIS_ACADEMIC	1993
25	EBSCOHOST_CINAHL_WITH_FULL_TEXT	1955
26	CSA_PSYCARTICLES	1689
27	JSTOR_ARTS_AND_SCIENCES_4	1181
28	NATURE	1249
29	WILSON_EDUCATION_INDEX	940
30	PUBMED_CENTRAL_JOURNALS	976
31	EBSCOHOST_PROFESSIONAL_DEVELOP	1878
32	AIP_SCITATION_AMERICAN_INSTITUTE_C	633
33	GALEGROUP_GN_BUSINESS_COMPANY	636

# Composing Rock 'n' Roll Stories from the Usage Data Blues

Excel, live in concert: Consolidate similar information

## Part 2: Consolidating different spreadsheets

(Please note that these instructions were developed with Excel 2003 for Windows)

If the consolidation process does not give the results you expected, try again using other labels ("Top row" or "Left column"), or use a smaller set of data. This is a complex process that will take you some time to master. Be forgiving and allow yourself plenty of time to practice.