Excel 2003

Sorting and Filtering Data

User's Manual

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Sort Data Lists

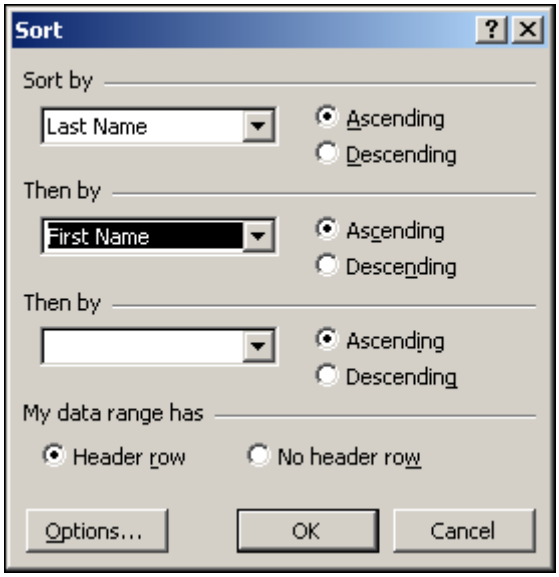
Sorting Data
Excel may be one of the easiest programs available to sort large amounts of data quickly and easily. Data can be sorted in ascending order, A to Z, or descending order, Z to A. Sorting can be as simple or as complex as you need to be, options are available to sort data by numeric or alphabetic information and by single or multiple criterion.

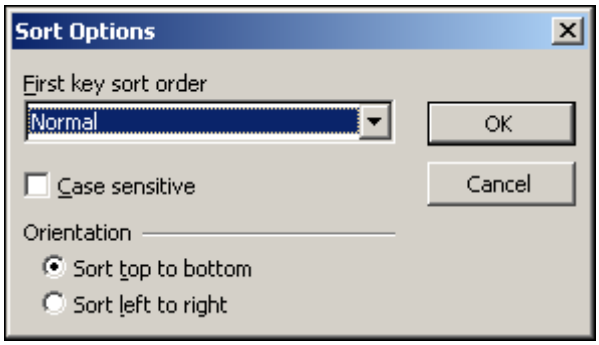
Single-level Sort

1. Click on a cell located in the column you would like to sort.
2. On the standard toolbar, click the Sort Ascending button  or the sort Descending button 
3. Data will be sorted in the appropriate order.

Multiple-level Sort

1. Data Menu → Sort
2. The Sort Text Dialog box will appear
3. Click the drop down in the Sort by box to select the first criterion
4. Select Ascending or Descending for the first criterion
5. Click the drop down in the Then by box to select the second criterion
6. Select Ascending or Descending for the second criterion
7. If necessary repeat steps 6 and 7 for a third criterion
8. If your data contains labels at the top of the column, select the radio button next to header row
9. If your data does not contain labels, select the radio button next to No header row.
10. More detailed tools are available by pressing the Options button on the sort window.
    a. **First key sort order** – this should always be set to normal unless you are sorting days of the week or months of the year
    b. **Case sensitive** – Check this box to make your sort case sensitive. If the data is sorted in descending order this will put all the words starting with capital letters first in a sort, then all the words starting with lower case letters (A,B,C, a, b, c); the opposite is true if using ascending order.
    c. **Orientation –** Top to bottom will sort columns, Left to Right will sort Rows
    d. Click OK
11. When finished designing sort, click OK





Filter Data Lists

Filter

The ability to filter data is most helpful when you want to see only a small subset of your original data that fits a given criteria. For example you have a list of 500 of the University's most charitable donors, you want to see how many of those donors live in Oshkosh. All you need to do is set up a filter to find this out.

Filter a Data List with AutoFilter

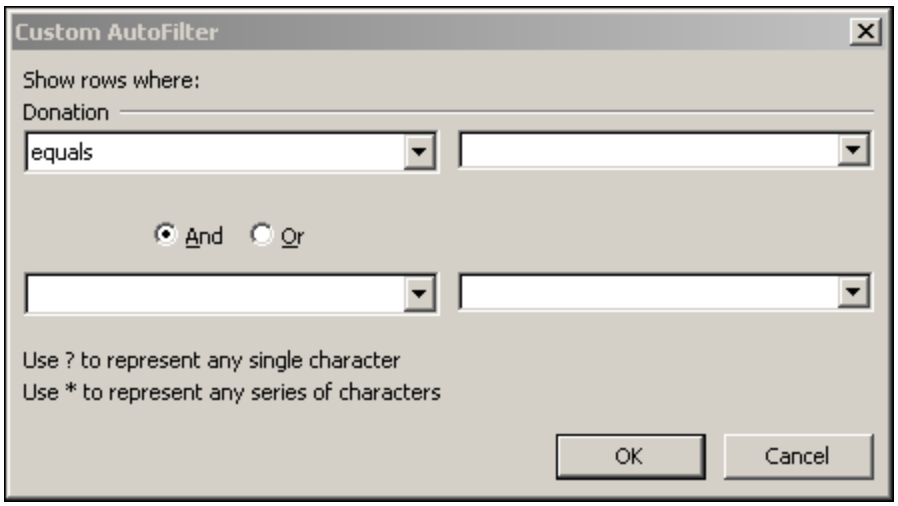
1. Data Menu → Filter → AutoFilter
2. Notice that small dropdown arrows appeared next to each column heading
3. To apply a filter, click the drop down and select the criteria you would like to view.
    a. **Sort Ascending** – will sort by that column from A to Z
    b. **Sort Descending** – will sort by that column from Z to A
    c. **All** – after a filter has been applied, click all to see all entries
    d. **Top 10** – will deliver the top ten entries under a heading,
        i. The number 10 is adjustable, you can make it 5 or 20 or 17
        ii. You can also change items to percent to show the top or bottom ten percent
    e. **Custom** – see below instructions for "Filter a Data List with a Custom AutoFilter
    f. **Individual Item** – select the item you would like to see; for example, select $10.00 to see only the people who donated $10.00
4. Notice that once a filter has been applied the dropdown arrow turns blue.
5. You can filter out multiple criteria by clicking multiple drop down arrows
    a. Example filter by city to get all those people living in Oshkosh, then filter by zip code to get those people living near campus.

Last	First MI	Phor	Home Address	City	Zip	Home Phone	Donation
Alderson	Madeline	1847	1235 Any Street	Oshkosh	54904	695-1253	
Hitz	Brittany	2136	22695 Maes Ave	Oshkosh	54902	215-6954	
Smith	Larry	3649	266 3rd Street	Appleton	54915	965-1547	
Ley	Sheri	9521	6985 Parkland Cr.	Appleton	54911	264-1575	
Luljak	Kristi	6593	8695 Elm Street	Menasha	54952	125-6987	
MacDonald	Ryan	2146	25 Woodland	Appleton	54915	265-9642	
Clarke	Matthew	9246	58 Sugar Hollow Dr.	Oshkosh	54904	215-2689	
Prust	Melissa	2584	3235 Blackbird Ln.	Oshkosh	54901	875-5944	
Schramm	Shana	2694	6269 Oak Crest Ln.	Oshkosh	54904	987-9964	
Hochkammer	Jason	3854	5964 Westbridge Ave	Appleton	54915	695-4987	
Smith	Joel	7851	258 Berge Ct.	Appleton	54915	269-8941	

Sort Ascending
Sort Descending
(All)
(Top 10...)
(Custom...)
$5.00
$10.00
$50.00
$100.00
$300.00
$500.00
$1,000.00
$5,000.00

Filter a Data List with a Custom AutoFilter

1. Data Menu → Filter → AutoFilter
2. Click the dropdown in the column you would like to filter
3. Drag down to "Custom"
4. The Custom AutoFilter Dialog box will appear.
5. Use the dropdown in the first box to select the parameter you would like to use for your filter, Examples: greater than, less than or equal to
6. Use the dropdown or type a limit into the second box, Example: $5.00
7. If necessary, use the radio buttons for AND or IF, and the second set of boxes to add another criteria to the filter.
8. Click OK



Create and Apply Advanced Filters

Sometimes, the AutoFilter feature may not allow you to filter all the criteria you would like. An Advanced Filter gives you many more options when it comes to the type and amounts of information being filtered.

1. Insert a minimum of three blank rows above your set of Data.
2. Copy your original Header into the top row so that there are several blank rows to hold your criteria (see below)

	A	E	F	G	H	I	J
1	Last	Fin Aid	Award	Major	Minor	Year	Comp Exper
2							
3							
4							
5	Last	Fin Aid	Award	Major	Minor	Year	Comp Exper
6	Alderson	SA	0	Accounting	None	Freshman	Some
7	Hitz	WS	2000	Education	None	Freshman	Lots
8	Smith	SA	0	Phy Ed	Health	Sophomore	Some
9	Ley	SA	0	Criminal Justice	None	Freshman	Some
10	Luljak	SA	0	Undecided	None	Sophomore	Lots
11	MacDonald	SA	0	Fine Arts	Photography	Freshman	None

Rows for criteria

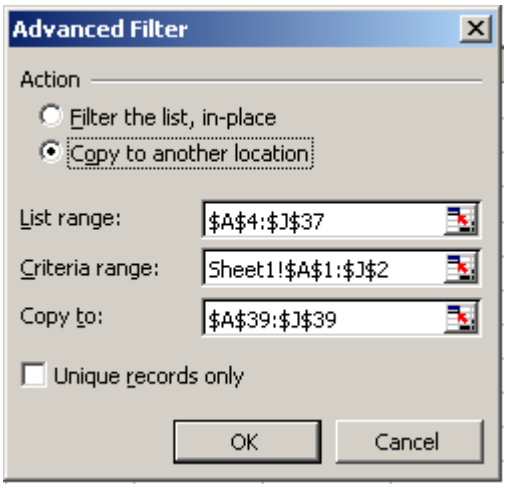
data to be filtered

3. Enter desired criteria into blank rows under appropriate columns
   a. **"=text"** : Find exactly the text specified within the quotation marks
   b. **?** : Replaces any single character in the same position as the question mark
   c. ***** : Replaces multiple characters in the same position as the asterisk
   d. = : Equal to
   e. < : Less than
   f. > : Greater than
   g. <= : Less than or equal to
   h. >= : Greater than or equal to
   i. <> : Not equal to

	A	E	F	G	H	I	J
1	Last	Fin Aid	Award	Major	Minor	Year	Comp Exper
2		WS	<=1500	Education		Freshman	Lots
3							
4							
5	Last	Fin Aid	Awa	Major	Minor	Year	Comp Exper
6	Alderson	SA	0	Accounting	None	Freshman	Some
7	Hitz			Education	None	Freshman	Lots
8	Smith			Phy Ed	Health	Sophomore	Some
9	Ley			Criminal Justice	None	Freshman	Some
10	Luljak			Undecided	None	Sophomore	Lots

Enter desired criteria into appropriate columns

4. Click Data Menu → Filter → Advanced Filter
5. The Advanced Filter dialog box will appear, select the appropriate options
   a. **Filter the list, in place** : clicking this radial button will hide rows that do not fit the criteria, similar to AutoFilter
   b. **Copy to another location**: will take those entries that fit the criteria and will copy them to another location on the sheet
   c. **List Range**: select the cells of original data to be filtered (include header row)
   d. **Criteria Range**: select the cells that hold criteria (include header row)
   e. **Copy to**: select the cell you would like to have filtered data copied to (this option is only available if the "Copy to another location" is checked)
   f. **Unique records only**: will only allow a record to appear once in the filtered list

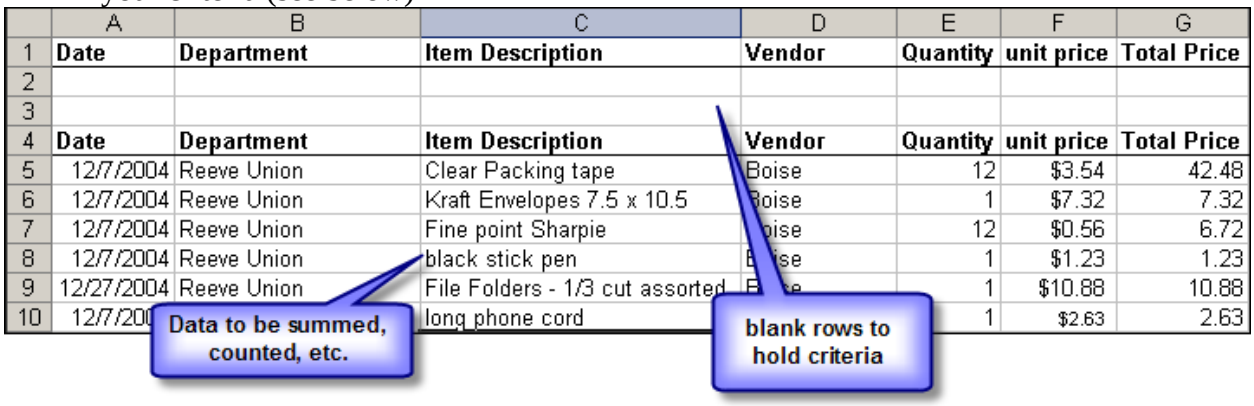


6. Click OK
7. Data that fits the desired criteria will appear

Calculate with Database Functions

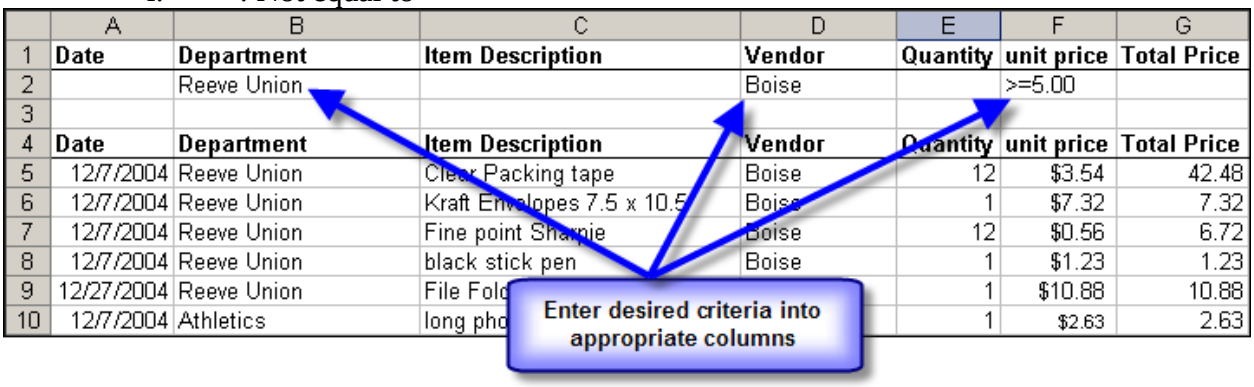
Database functions can be very useful when working with large amounts of data. It takes the benefits of an Advanced Filter and mixes it with a basic function, to give you the sum, count, etc of your data. Take for example, a spreadsheet that tracks office supplies ordered by different departments on campus, you want to know how much each specific area spent, a database function will give you this result.

1. Insert a minimum of three blank rows above your set of Data.
2. Copy your original Header into the top row so that there are several blank rows to hold your criteria (see below)



	A	B	C	D	E	F	G
1	**Date**	**Department**	**Item Description**	**Vendor**	**Quantity**	**unit price**	**Total Price**
2							
3							
4	**Date**	**Department**	**Item Description**	**Vendor**	**Quantity**	**unit price**	**Total Price**
5	12/7/2004	Reeve Union	Clear Packing tape	Boise	12	$3.54	42.48
6	12/7/2004	Reeve Union	Kraft Envelopes 7.5 x 10.5	Boise	1	$7.32	7.32
7	12/7/2004	Reeve Union	Fine point Sharpie	Boise	12	$0.56	6.72
8	12/7/2004	Reeve Union	black stick pen	Boise	1	$1.23	1.23
9	12/27/2004	Reeve Union	File Folders - 1/3 cut assorted	Boise	1	$10.88	10.88
10	12/7/2004	Athletics	long phone cord	Boise	1	$2.63	2.63

3. Enter desired criteria into blank rows under appropriate columns
   a. **"=text"** : Find exactly the text specified within the quotation marks
   b. **?** : Replaces any single character in the same position as the question mark
   c. ***** : Replaces multiple characters in the same position as the asterisk
   d. = : Equal to
   e. < : Less than
   f. > : Greater than
   g. <= : Less than or equal to
   h. >= : Greater than or equal to
   i. <> : Not equal to



	A	B	C	D	E	F	G
1	**Date**	**Department**	**Item Description**	**Vendor**	**Quantity**	**unit price**	**Total Price**
2		Reeve Union		Boise		>=5.00	
3							
4	**Date**	**Department**	**Item Description**	**Vendor**	**Quantity**	**unit price**	**Total Price**
5	12/7/2004	Reeve Union	Clear Packing tape	Boise	12	$3.54	42.48
6	12/7/2004	Reeve Union	Kraft Envelopes 7.5 x 10.5	Boise	1	$7.32	7.32
7	12/7/2004	Reeve Union	Fine point Sharpie	Boise	12	$0.56	6.72
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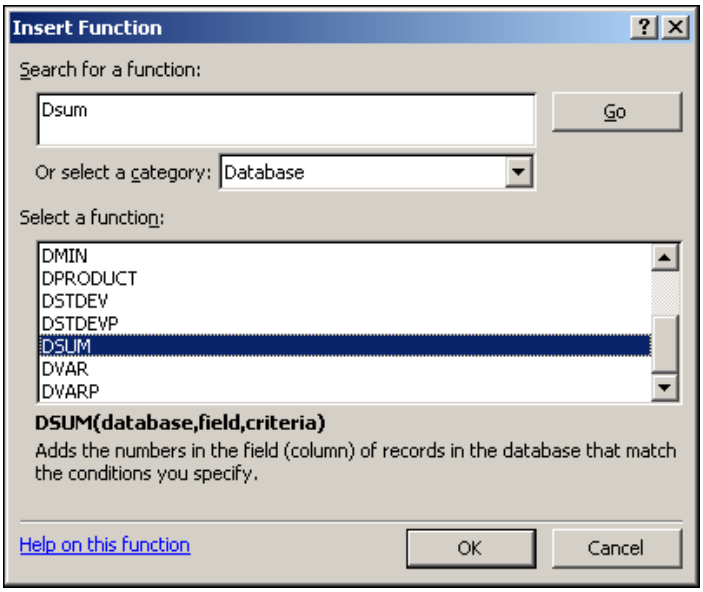
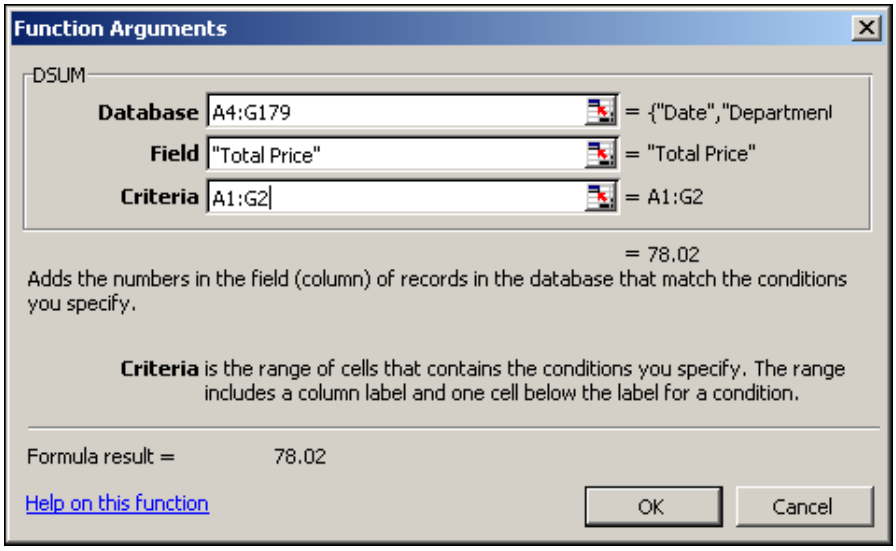
9	12/27/2004	Reeve Union	File Folders - 1/3 cut assorted	Boise	1	$10.88	10.88
10	12/7/2004	Athletics	long phone cord	Boise	1	$2.63	2.63

4. Click the cell where you would like your function to be.
5. Click the function button, located next to formula bar. 
6. The Insert function box will appear
7. Select the function you would like to use.
    a. Select Database from the category dropdown, to see available database functions
    b. As each function is highlighted, an explanation of that function will be displayed at the bottom of the window
8. Click OK



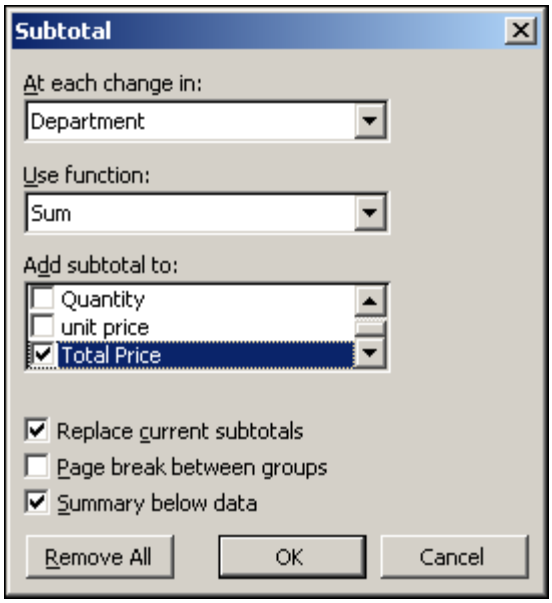
9. Once a function has been selected a dialog box specific to that function will appear.
    a. We will use the DSUM as an example
10. Fill in boxes with appropriate entries
    a. **Database**: select the entire section of cells to be figured (include header row)
    b. **Field**: Which do you want to add, or count? Enter the label in quotation marks
    c. **Criteria**: Select the cells that hold your specific criteria
11. Click OK



Add Subtotals to a Worksheet

Subtotals can be very useful if you want to total up the same piece of data for several different types of entries.

1. Sort data using the column you would like to subtotal
2. Choose Data → Subtotals
3. The Subtotal Dialog Box will appear
4. Use Dropdown menus and check boxes to choose appropriate options
    a. **At each change in:** Select the field you want totals for.
    b. **Use Function:** Select the function you would like to use Sum, Average, Count, etc.
    c. **Add Subtotal to:** Click the boxes for the fields you would like to total
    d. **Replace Current subtotals:** Checking this box will replace any existing totals
    e. **Page break between groups:** Check this box to put each grouping on a separate page.
    f. **Summary below data:** Check this box to have a Summary below the data.
    g. **Remove All:** To remove any existing subtotals, press this button.
5. Click OK
6. Data will be subtotaled and collapsible groups will be compiled.



	A	B	C	D	E	F	G
1	**Date**	**Department**	**Item Description**	**Vendor**	**Quantity**	**unit price**	**Total Price**
2	4/7/2005	Academic Computing	Box of Cleaning Wipes	Polk Library Ma	2	$7.99	15.98
3	5/10/2005	Academic Computing	Labels	Polk Library Ma	12	$11.12	133.44
4		**Academic Computing Total**					149.42
5	2/22/2005	Applications & Prog.	Batteries - AA	Central Stores	4	$0.30	1.20
6		**Applications & Prog. Total**					1.20
7	12/7/2004	Athletics	long phone cord	Boise			2.63
8	4/12/2005	Athletics	Kraft Envelopes 12.5 x 8.5	Polk Library Ma	1	$7.66	7.66
9	5/10/2005	Athletics	Rubberbands	Polk Library Ma	10	$3.68	36.80
10		**Athletics Total**					47.09
11	5/10/2005	Information Technology	Dry erase markers - green	Polk Library Ma	2	$0.69	1.38
12	5/25/2005	Information Technology	9 Volt Battery	Central Stores	3	$1.20	3.60
13		**Information Technology Total**					4.98
14	5/25/2005	Polk Library	pink bond	Central Stores	2	$3.20	6.40
15	5/25/2005	Polk Library	Canary Bond	Central Stores	3	$3.20	9.60
16	5/25/2005	Polk Library	Green Bond	Central Stores	2	$3.20	6.40
17	5/25/2005	Polk Library	Cream Bond	Central Stores	2	$3.20	6.40
18		**Polk Library Total**					28.80
19			Sealing tape	Polk Library Ma	12	$0.64	7.68
20			White copy paper	Central Stores	20	$2.40	48.00
21	4/25/2005	Reeve Union	black ink for stamp pads	Central Stores	1	$0.10	0.10
22		**Reeve Union Total**					55.78
23		**Grand Total**					287.27