

# Using Excel to Format and Analyze Query/Report Output



**Office of Information Technology**

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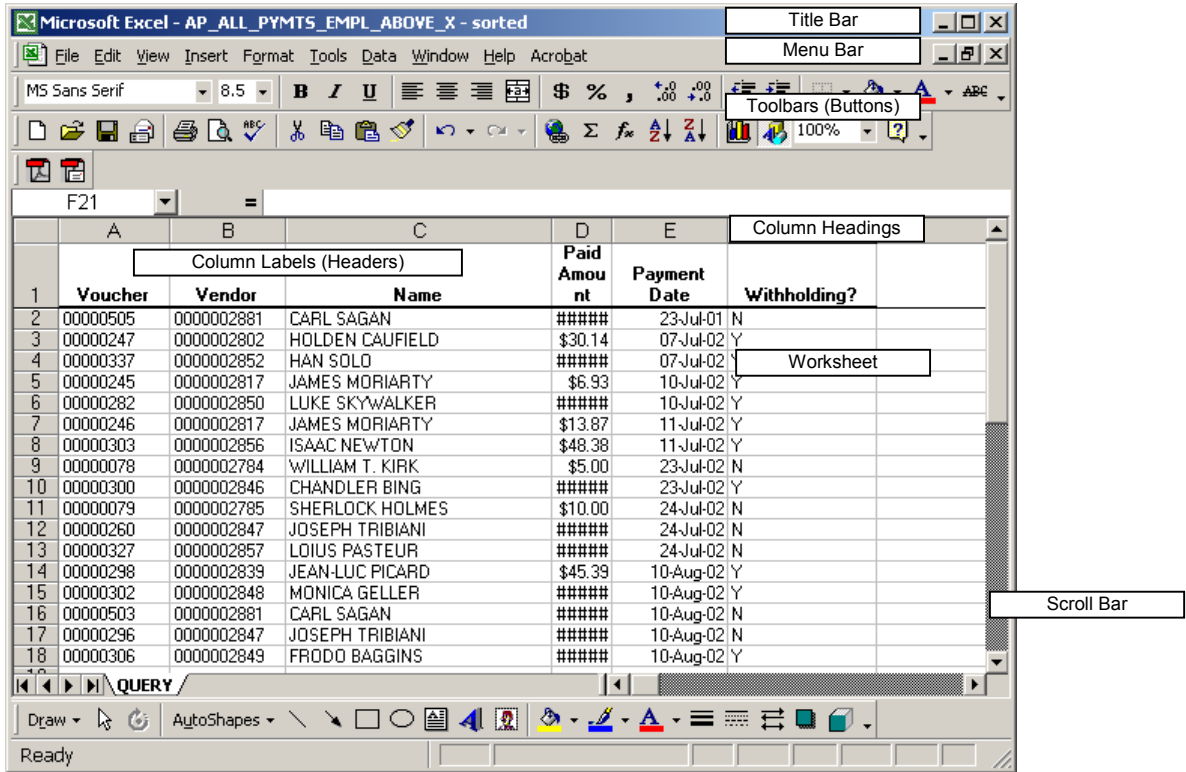
**Introduction**

This reference guide provides instructions on using Excel to analyze data extracted from the e\*mpac HR and Financials system. It provides a step-by-step approach to using some of Excel most common features. It assumes that you

- extracted the data by copying/pasting an inquiry panel into Excel; by running a query or by downloading a report to Excel;
- are currently viewing the document;
- have saved the document to your hard drive in Excel format.

**Terminology**

The following terms are used in the reference guide.



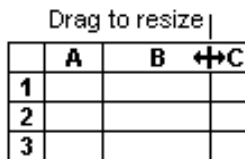
**Problem** Cells are showing ##### instead of actual data.  
Columns are too narrow or the columns are too wide.

**Solution** The column is not wide enough to display the data. Make the column wider.

**Example** The Gross Amount Paid column in the following worksheet is not wide enough to display the data in the cells correctly. The Name column is too wide. Change the column widths to make the data fit properly.

	A	B	C	D	E
1	Voucher	Vendor	Name	Paid Amou	Payment Date
2	00000300	0000002846	Bing, Chandler	#####	23-Jul-02
3	00000079	0000002785	Holmes, Sherlock	\$10.00	24-Jul-02
4	00000260	0000002817	Moriarty, James	#####	24-Jul-02
5	00000246	0000002817	Moriarty, James	\$13.87	11-Jul-02
6	00000078	0000002856	Newton, Isaac	\$5.00	23-Jul-02
7	00000303	0000002856	Newton, Isaac	\$48.38	11-Jul-02
8	00000298	0000002857	Pasteur, Louis	\$45.39	10-Aug-02
9	00000327	0000002857	Pasteur, Louis	#####	24-Jul-02
10	00000337	0000002881	Sagan, Carl	#####	23-Jul-02
11	00000245	0000002881	Sagan, Carl	\$6.93	10-Jul-02
12	00000247	0000002881	Sagan, Carl	\$30.14	07-Jul-02
13	00000505	0000002881	Sagan, Carl	#####	23-Jul-01
14	00000282	0000002850	Skywalker, Luke	#####	10-Jul-02

**Instructions** Step 1: Click and hold to drag the boundary on the right side of the column heading. Make the column wider or narrower as needed.



**Results** The column widths have been changed.

	A	B	C	D	E
1	Voucher	Vendor	Name	Gross Paid Amount	Payment Date
2	00000300	0000002846	Bing, Chandler	\$123.37	23-Jul-02
3	00000079	0000002785	Holmes, Sherlock	\$10.00	24-Jul-02
4	00000260	0000002817	Moriarty, James	\$500.00	24-Jul-02
5	00000246	0000002817	Moriarty, James	\$13.87	11-Jul-02
6	00000078	0000002856	Newton, Isaac	\$5.00	23-Jul-02
7	00000303	0000002856	Newton, Isaac	\$48.38	11-Jul-02
8	00000298	0000002857	Pasteur, Louis	\$45.39	10-Aug-02
9	00000327	0000002857	Pasteur, Louis	\$676.50	24-Jul-02
10	00000337	0000002881	Sagan, Carl	\$573.01	23-Jul-02
11	00000245	0000002881	Sagan, Carl	\$6.93	10-Jul-02
12	00000247	0000002881	Sagan, Carl	\$30.14	07-Jul-02
13	00000505	0000002881	Sagan, Carl	\$126.31	23-Jul-01
14	00000282	0000002850	Skywalker, Luke	\$332.87	10-Jul-02

**Hint** Row heights can be adjusted in the same way.



**Problem** The spreadsheet does not have any column labels (i.e. a header row).

**Solution** Add appropriate column labels.

**Example** The following worksheet does not have any column labels. Insert a row at the top of the worksheet and enter names for columns.

	A	B	C	D	E
1	00000300	000002846	Bing, Chandler	\$123.37	23-Jul-02
2	00000079	0000002785	Holmes, Sherlock	\$10.00	24-Jul-02
3	00000260	0000002817	Moriarty, James	\$500.00	24-Jul-02
4	00000246	0000002817	Moriarty, James	\$13.87	11-Jul-02
5	00000078	0000002856	Newton, Isaac	\$5.00	23-Jul-02
6	00000303	0000002856	Newton, Isaac	\$48.38	11-Jul-02
7	00000298	0000002857	Pasteur, Louis	\$45.39	10-Aug-02
8	00000327	0000002857	Pasteur, Louis	\$676.50	24-Jul-02
9	00000337	0000002881	Sagan, Carl	\$573.01	23-Jul-02
10	00000245	0000002881	Sagan, Carl	\$6.93	10-Jul-02
11	00000247	0000002881	Sagan, Carl	\$30.14	07-Jul-02
12	00000505	0000002881	Sagan, Carl	\$126.31	23-Jul-01
13	00000282	0000002850	Skywalker, Luke	\$332.87	10-Jul-02

**Instructions** Step 1: Click once on the **1** next to cell A1. This will highlight the entire row.

Step 2: Select Insert > Rows.

Step 3: Type the label of the first column (Column A) and press **Tab** to move to the next column.

Step 4: Continue entering the column labels until done.

Step 5: If the row is no longer highlighted, then select (highlight) the cells containing the column labels. Format the column labels using the font, size and color tools on the toolbar.



**Results** The columns contain descriptive formatted labels.

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
<b>1</b>	<b>Voucher</b>	<b>Vendor</b>	<b>Name</b>	<b>Gross Paid Amt</b>	<b>Pmt Date</b>
2	00000300	000002846	Bing, Chandler	\$123.37	23-Jul-02
3	00000079	0000002785	Holmes, Sherlock	\$10.00	24-Jul-02
4	00000260	0000002817	Moriarty, James	\$500.00	24-Jul-02
5	00000246	0000002817	Moriarty, James	\$13.87	11-Jul-02
6	00000078	0000002856	Newton, Isaac	\$5.00	23-Jul-02
7	00000303	0000002856	Newton, Isaac	\$48.38	11-Jul-02
8	00000298	0000002857	Pasteur, Louis	\$45.39	10-Aug-02
9	00000327	0000002857	Pasteur, Louis	\$676.50	24-Jul-02
10	00000337	0000002881	Sagan, Carl	\$573.01	23-Jul-02
11	00000245	0000002881	Sagan, Carl	\$6.93	10-Jul-02
12	00000247	0000002881	Sagan, Carl	\$30.14	07-Jul-02
13	00000505	0000002881	Sagan, Carl	\$126.31	23-Jul-01
14	00000282	0000002850	Skywalker, Luke	\$332.87	10-Jul-02

**Problem** The columns are not in the correct order.


**Solution** Cut and paste entire columns in the correct order.

**Example** The following worksheet has Pmt Date in the last column. Move the Pmt Date to the left of Voucher to make it the first column.

	A	B	C	D	E
1	<b>Voucher</b>	<b>Vendor</b>	<b>Name</b>	<b>Gross Paid Amt</b>	<b>Pmt Date</b>
2	00000300	0000002846	Bing, Chandler	\$123.37	23-Jul-02
3	00000079	0000002785	Holmes, Sherlock	\$10.00	24-Jul-02
4	00000260	0000002817	Moriarty, James	\$500.00	24-Jul-02
5	00000246	0000002817	Moriarty, James	\$13.87	11-Jul-02
6	00000078	0000002856	Newton, Isaac	\$5.00	23-Jul-02
7	00000303	0000002856	Newton, Isaac	\$48.38	11-Jul-02
8	00000298	0000002857	Pasteur, Louis	\$45.39	10-Aug-02
9	00000327	0000002857	Pasteur, Louis	\$676.50	24-Jul-02
10	00000337	0000002881	Sagan, Carl	\$573.01	23-Jul-02
11	00000245	0000002881	Sagan, Carl	\$6.93	10-Jul-02
12	00000247	0000002881	Sagan, Carl	\$30.14	07-Jul-02
13	00000505	0000002881	Sagan, Carl	\$126.31	23-Jul-01
14	00000282	0000002850	Skywalker, Luke	\$332.87	10-Jul-02

**Instructions** Step 1: Select the entire column by clicking on column header of the column you want to move. The column headers look like this:

A	B	C	D	E
---	---	---	---	---

Step 2: Click the  on the toolbar.

Step 3: Click on the column header to the right of where you want the column inserted.

Step 4: Select Insert > Cut Cells.

**Results** The column you cut is pasted to the left of the column you selected.

	A	B	C	D	E
1	<b>Pmt Date</b>	<b>Voucher</b>	<b>Vendor</b>	<b>Name</b>	<b>Gross Paid Amt</b>
2	23-Jul-02	00000300	0000002846	Bing, Chandler	\$123.37
3	24-Jul-02	00000079	0000002785	Holmes, Sherlock	\$10.00
4	24-Jul-02	00000260	0000002817	Moriarty, James	\$500.00
5	11-Jul-02	00000246	0000002817	Moriarty, James	\$13.87
6	23-Jul-02	00000078	0000002856	Newton, Isaac	\$5.00
7	11-Jul-02	00000303	0000002856	Newton, Isaac	\$48.38
8	10-Aug-02	00000298	0000002857	Pasteur, Louis	\$45.39
9	24-Jul-02	00000327	0000002857	Pasteur, Louis	\$676.50
10	23-Jul-02	00000337	0000002881	Sagan, Carl	\$573.01
11	10-Jul-02	00000245	0000002881	Sagan, Carl	\$6.93
12	07-Jul-02	00000247	0000002881	Sagan, Carl	\$30.14
13	23-Jul-01	00000505	0000002881	Sagan, Carl	\$126.31
14	10-Jul-02	00000282	0000002850	Skywalker, Luke	\$332.87

**Problem** There are columns with repetitive or unnecessary information.

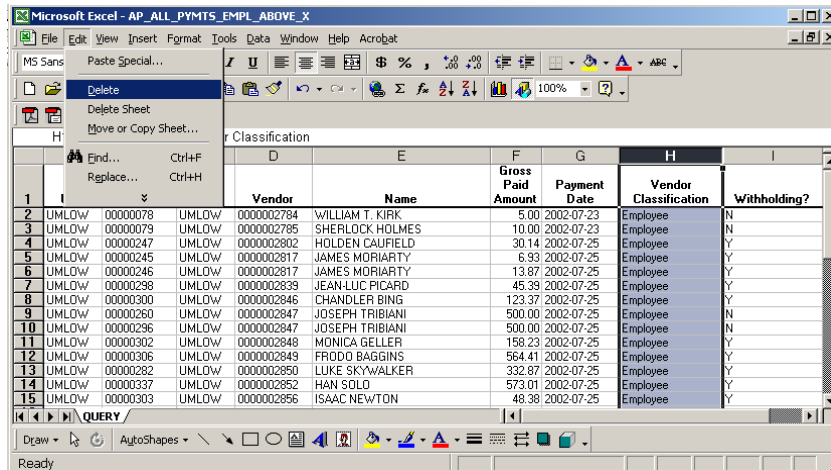
**Solution** Delete or hide the columns that contain the repetitive or unnecessary information.

**Example** In the worksheet below, you can see that several columns contain repetitive information. The Unit and SetID columns hold only one value (UMLow) and the Vendor Classification column contains Employee. Delete these columns.

	A	B	C	D	E	F	G	H	I
1	Unit	Voucher	SetID	Vendor	Name	Gross Paid Amount	Payment Date	Vendor Classification	Withholding?
2	UMLow	00000078	UMLow	0000002784	WILLIAM T. KIRK	5.00	2002-07-23	Employee	N
3	UMLow	00000079	UMLow	0000002785	SHERLOCK HOLMES	10.00	2002-07-23	Employee	N
4	UMLow	00000247	UMLow	0000002802	HOLDEN CAUFIELD	30.14	2002-07-25	Employee	Y
5	UMLow	00000245	UMLow	0000002817	JAMES MORIARTY	6.93	2002-07-25	Employee	Y
6	UMLow	00000246	UMLow	0000002817	JAMES MORIARTY	13.87	2002-07-25	Employee	Y
7	UMLow	00000298	UMLow	0000002839	JEAN-LUC PICARD	45.39	2002-07-25	Employee	Y
8	UMLow	00000300	UMLow	0000002846	CHANDLER BING	123.37	2002-07-25	Employee	Y
9	UMLow	00000260	UMLow	0000002847	JOSEPH TRIBIANI	500.00	2002-07-25	Employee	N
10	UMLow	00000296	UMLow	0000002847	JOSEPH TRIBIANI	500.00	2002-07-25	Employee	N
11	UMLow	00000302	UMLow	0000002848	MONICA GELLER	158.23	2002-07-25	Employee	Y
12	UMLow	00000306	UMLow	0000002849	FRODO BAGGINS	564.41	2002-07-25	Employee	Y
13	UMLow	00000282	UMLow	0000002850	LUKE SKYWALKER	332.87	2002-07-25	Employee	Y
14	UMLow	00000337	UMLow	0000002852	HAN SOLO	573.01	2002-07-25	Employee	Y
15	UMLow	00000303	UMLow	0000002856	ISAAC NEWTON	48.38	2002-07-25	Employee	Y

**Instructions** Step 1: Click on the column heading of the column you want to delete.

Step 2: Select Edit > Delete to delete the column or select Format > Column > Hide.



**NOTE:** You can always use the Unhide command later. You may not be able to “undelete” the column.

**Results** The worksheet no longer displays columns with repetitive and unnecessary data.

	A	B	C	D	E	F
1	Voucher	Vendor	Name	Gross Paid Amount	Payment Date	Withholding?
2	00000078	0000002784	WILLIAM T. KIRK	5.00	2002-07-23	N
3	00000079	0000002785	SHERLOCK HOLMES	10.00	2002-07-23	N
4	00000247	0000002802	HOLDEN CAUFIELD	30.14	2002-07-25	Y
5	00000245	0000002817	JAMES MORIARTY	6.93	2002-07-25	Y
6	00000246	0000002817	JAMES MORIARTY	13.87	2002-07-25	Y
7	00000298	0000002839	JEAN-LUC PICARD	45.39	2002-07-25	Y
8	00000300	0000002846	CHANDLER BING	123.37	2002-07-25	Y
9	00000260	0000002847	JOSEPH TRIBIANI	500.00	2002-07-25	N
10	00000296	0000002847	JOSEPH TRIBIANI	500.00	2002-07-25	N
11	00000302	0000002848	MONICA GELLER	158.23	2002-07-25	Y
12	00000306	0000002849	FRODO BAGGINS	564.41	2002-07-25	Y
13	00000282	0000002850	LUKE SKYWALKER	332.87	2002-07-25	Y
14	00000337	0000002852	HAN SOLO	573.01	2002-07-25	Y
15	00000303	0000002856	ISAAC NEWTON	48.38	2002-07-25	Y
16	00000327	0000002857	LOIUS PASTEUR	676.50	2002-07-25	N
17	00000505	0000002881	CARL SAGAN	126.31	2002-07-29	N
18	00000503	0000002881	CARL SAGAN	287.96	2002-07-29	N

**Problem** Dollar amounts are not being displayed correctly (i.e. with \$).

**Solution** The columns are not formatted to display the data correctly.

**Example** In the worksheet below, the Gross Paid Amount column contains dollar values. Format the cells to display the data as currency.

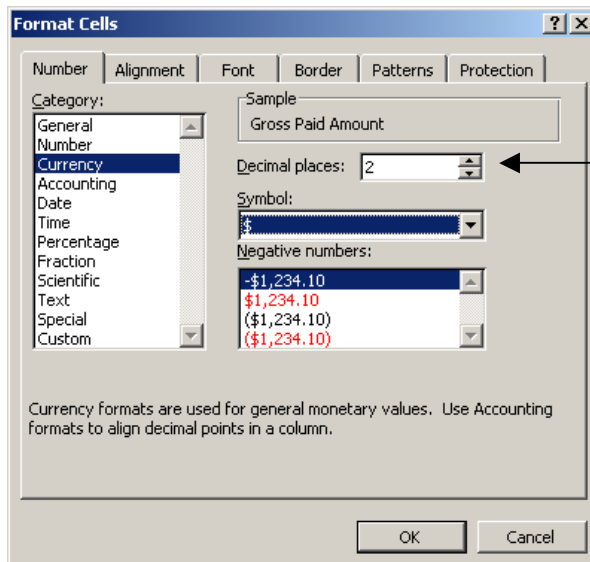
	A	B	C	D	E	F
1	Voucher	Vendor	Name	Gross Paid Amount	Payment Date	Withholding?
2	00000078	0000002784	WILLIAM T. KIRK	5.00	2002-07-23	N
3	00000079	0000002785	SHERLOCK HOLMES	10.00	2002-07-23	N
4	00000247	0000002802	HOLDEN CAUFIELD	30.14	2002-07-25	Y
5	00000245	0000002817	JAMES MORIARTY	6.93	2002-07-25	Y
6	00000246	0000002817	JAMES MORIARTY	13.87	2002-07-25	Y
7	00000298	0000002839	JEAN-LUC PICARD	45.39	2002-07-25	Y
8	00000300	0000002846	CHANDLER BING	123.37	2002-07-25	Y
9	00000260	0000002847	JOSEPH TRIBIANI	500.00	2002-07-25	N
10	00000296	0000002847	JOSEPH TRIBIANI	500.00	2002-07-25	N
11	00000302	0000002848	MONICA GELLER	158.23	2002-07-25	Y
12	00000306	0000002849	FRODO BAGGINS	564.41	2002-07-25	Y
13	00000282	0000002850	LUKE SKYWALKER	332.87	2002-07-25	Y

**Instructions** Step 1: Select the range of cells that need to be formatted as currency.

Step 2: Select Format > Cells...

Step 3: On the Number tab, make selections as shown below.

Step 4: Click OK.



1. In the Category area, select **Currency**.
2. In the Decimal places field, type 2 or use the up/down arrows.
3. Select the \$ from the Symbol drop-down list.
4. Select the format you'd like for negative numbers in the Negative numbers field.
5. Click OK.

**Results** The worksheet displays the data as currency.

	A	B	C	D	E	F
1	Voucher	Vendor	Name	Gross Paid Amount	Payment Date	Withholding?
2	00000078	0000002784	WILLIAM T. KIRK	\$5.00	2002-07-23	N
3	00000079	0000002785	SHERLOCK HOLMES	\$10.00	2002-07-23	N
4	00000247	0000002802	HOLDEN CAUFIELD	\$30.14	2002-07-25	Y
5	00000245	0000002817	JAMES MORIARTY	\$6.93	2002-07-25	Y
6	00000246	0000002817	JAMES MORIARTY	\$13.87	2002-07-25	Y
7	00000298	0000002839	JEAN-LUC PICARD	\$45.39	2002-07-25	Y
8	00000300	0000002846	CHANDLER BING	\$123.37	2002-07-25	Y
9	00000260	0000002847	JOSEPH TRIBIANI	\$500.00	2002-07-25	N
10	00000296	0000002847	JOSEPH TRIBIANI	\$500.00	2002-07-25	N
11	00000302	0000002848	MONICA GELLER	\$158.23	2002-07-25	Y
12	00000306	0000002849	FRODO BAGGINS	\$564.41	2002-07-25	Y
13	00000282	0000002850	LUKE SKYWALKER	\$332.87	2002-07-25	Y

**Problem** The output is not sorted in the correct way.

**Solution** Use Excel's sort feature to re-organize the data. In the example below, the output is sorted by the Vendor number. You might find that sorting by payment date is more useful to you.

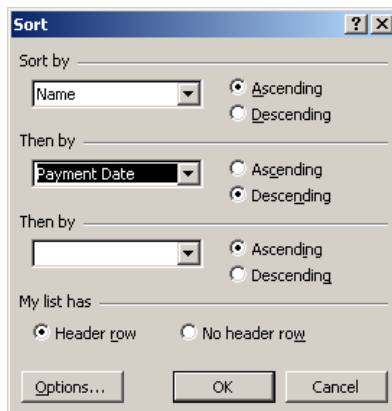
**Example** The following data needs to be sorted by Name and Payment Date.

	A	B	C	D	E
1	Voucher	Vendor	Name	Gross Paid Amount	Payment Date
2	00000078	0000002856	Newton, Isaac	\$5.00	23-Jul-02
3	00000079	0000002785	Holmes, Sherlock	\$10.00	24-Jul-02
4	00000245	0000002881	Sagan, Carl	\$6.93	10-Jul-02
5	00000246	0000002817	Moriarty, James	\$13.87	11-Jul-02
6	00000247	0000002881	Sagan, Carl	\$30.14	07-Jul-02
7	00000260	0000002817	Moriarty, James	\$500.00	24-Jul-02
8	00000282	0000002850	Skywalker, Luke	\$332.87	10-Jul-02
9	00000298	0000002857	Pasteur, Louis	\$45.39	10-Aug-02
10	00000300	0000002846	Bing, Chandler	\$123.37	23-Jul-02
11	00000303	0000002856	Newton, Isaac	\$48.38	11-Jul-02
12	00000327	0000002857	Pasteur, Louis	\$676.50	24-Jul-02
13	00000337	0000002881	Sagan, Carl	\$573.01	23-Jul-02
14	00000505	0000002881	Sagan, Carl	\$126.31	23-Jul-01

**Instructions** Step 1: Determine which column will be used as your primary sorting criteria. You may also want a secondary sort criteria. For example, you may want to sort by Payment Date and then by Gross Paid Amount.

Step 2: Select Data > Sort...

Step 3: Select the sort criteria as shown below. The drop-down lists will contain the Column Labels (headers).



- 1. Select the Header row radio button at the bottom.
- 2. From the Sort by drop-down list, select the column you want as the primary sort criteria.
- 3. From the Then by drop-down list, select the column you want as the secondary sort.
- 4. Click OK.

Step 4: Click OK.

**Results** The data is sorted according to the primary and secondary criteria you entered.

	A	B	C	D	E
1	Voucher	Vendor	Name	Gross Paid Amount	Payment Date
2	00000300	0000002846	Bing, Chandler	\$123.37	23-Jul-02
3	00000079	0000002785	Holmes, Sherlock	\$10.00	24-Jul-02
4	00000260	0000002817	Moriarty, James	\$500.00	24-Jul-02
5	00000246	0000002817	Moriarty, James	\$13.87	11-Jul-02
6	00000078	0000002856	Newton, Isaac	\$5.00	23-Jul-02
7	00000303	0000002856	Newton, Isaac	\$48.38	11-Jul-02
8	00000298	0000002857	Pasteur, Louis	\$45.39	10-Aug-02
9	00000327	0000002857	Pasteur, Louis	\$676.50	24-Jul-02
10	00000337	0000002881	Sagan, Carl	\$573.01	23-Jul-02
11	00000245	0000002881	Sagan, Carl	\$6.93	10-Jul-02
12	00000247	0000002881	Sagan, Carl	\$30.14	07-Jul-02
13	00000505	0000002881	Sagan, Carl	\$126.31	23-Jul-01
14	00000282	0000002850	Skywalker, Luke	\$332.87	10-Jul-02

**Problem** The spreadsheet contains too many rows of data. I just want to view the rows that are relevant to me.

**Solution** Use Excel's filter capability to view a subset of the data. Excel will display only the rows of data that meet the criteria you specify.

**Example** The list in the example below is filtered to show only the rows for the salesperson Davolio.

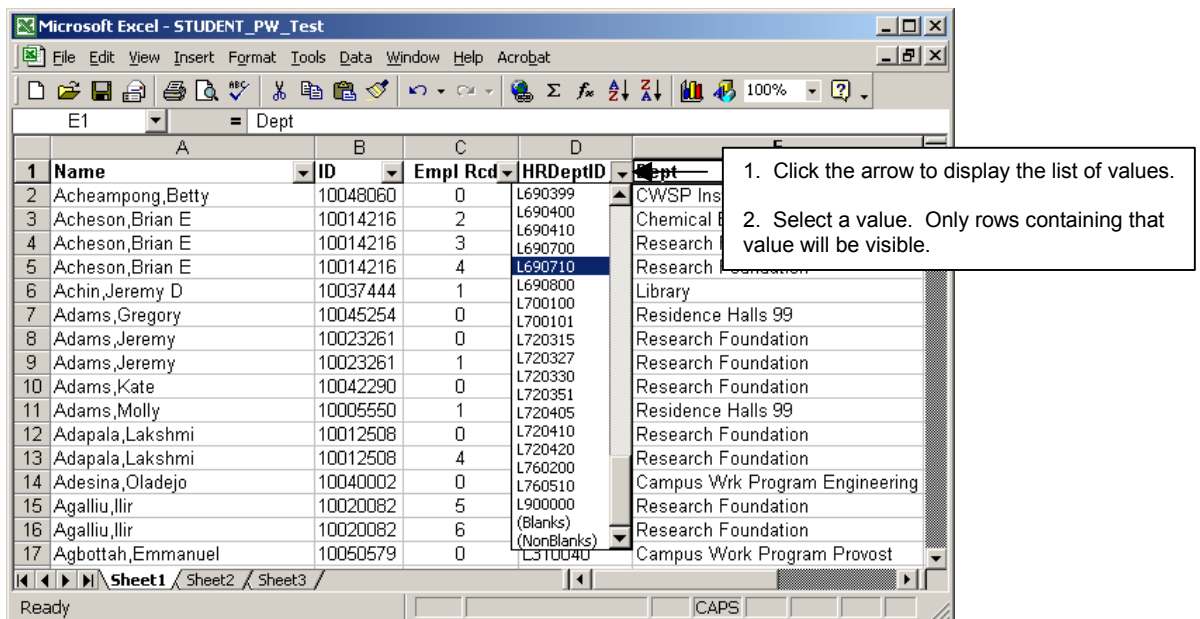
	A	B	C	D
1	<b>Salesperson</b>	<b>Region</b>	<b>Type</b>	<b>Sales</b>
2	Buchanan	South	Beverages	3,571
3	Davolio	West	Dairy	3,338
4	Suyama			
5	Suyama			
6	Dodsworth	3 Davolio	West Dairy	3,338
7	Davolio	7 Davolio	South Meat	450
8	Davolio	8 Davolio	South Meat	7,673
9	Suyama	10 Davolio	North Produce	1,500
10	Davolio	21 Davolio	South Produce	6,544
11		22 Davolio	East Produce	2,741
12		23 Davolio	East Produce	7,047

**Instructions** Step 1: Determine which column(s) will be used as your primary filtering criteria. Click on a cell in the list you want to filter.

Step 2: Select Data > Filter > AutoFilter. Arrows appear to the right of the column labels.

Step 3: Click on the arrow to display a list of all unique values found in that list.

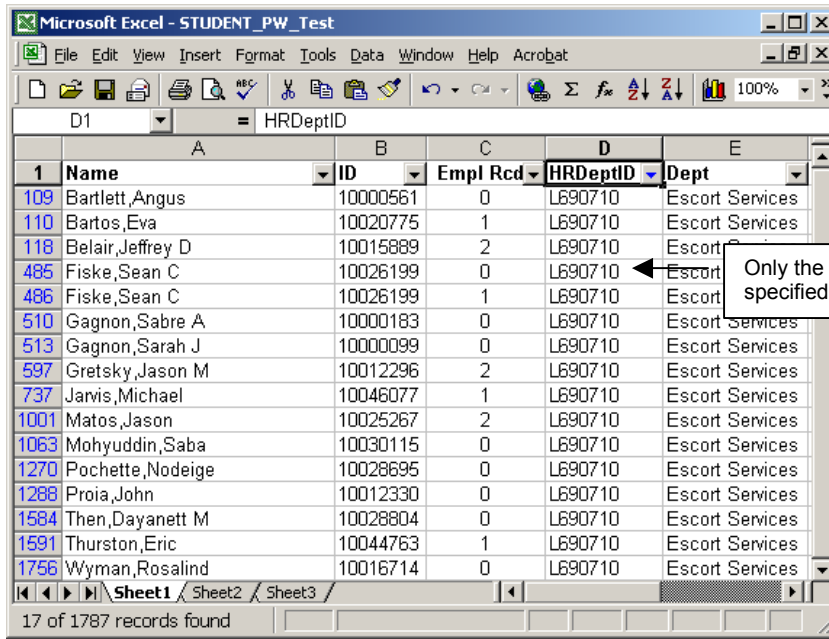
Step 4: Select the value to display all rows containing that value. Notice that you can also choose (Blanks) or (NonBlanks).



Step 4: To view the entire spreadsheet again, select Data > Filter > AutoFilter.

## Results

The data is filtered according to the criteria you entered.

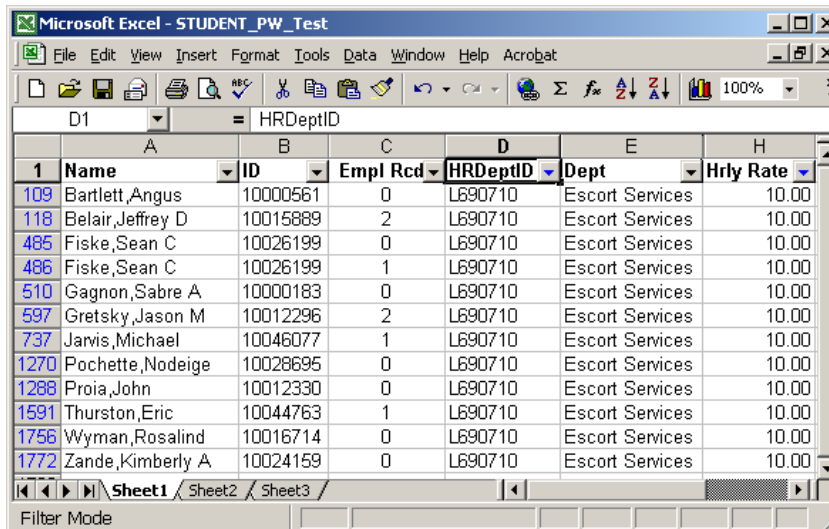


	A	B	C	D	E
1	Name	ID	Empl Rcd	HRDeptID	Dept
109	Bartlett, Angus	10000561	0	L690710	Escort Services
110	Bartos, Eva	10020775	1	L690710	Escort Services
118	Belair, Jeffrey D	10015889	2	L690710	Escort Services
485	Fiske, Sean C	10026199	0	L690710	Escort Services
486	Fiske, Sean C	10026199	1	L690710	Escort Services
510	Gagnon, Sabre A	10000183	0	L690710	Escort Services
513	Gagnon, Sarah J	10000099	0	L690710	Escort Services
597	Gretsky, Jason M	10012296	2	L690710	Escort Services
737	Jarvis, Michael	10046077	1	L690710	Escort Services
1001	Matos, Jason	10025267	2	L690710	Escort Services
1063	Mohyuddin, Saba	10030115	0	L690710	Escort Services
1270	Pochette, Nodeige	10028695	0	L690710	Escort Services
1288	Proia, John	10012330	0	L690710	Escort Services
1584	Then, Dayanett M	10028804	0	L690710	Escort Services
1591	Thurston, Eric	10044763	1	L690710	Escort Services
1756	Wyman, Rosalind	10016714	0	L690710	Escort Services

17 of 1787 records found

## Notes

You can make selections from more than one column. Each time you make a filtering selection from another column, you are further limiting your list (using a logical AND). In the example below, you are viewing only the rows of data that have an HRDeptID of L690710 and an Hrly Rate of 10.00. These are all the student employees working in the Escort Services area and making \$10/hr.



	A	B	C	D	E	H
1	Name	ID	Empl Rcd	HRDeptID	Dept	Hrly Rate
109	Bartlett, Angus	10000561	0	L690710	Escort Services	10.00
118	Belair, Jeffrey D	10015889	2	L690710	Escort Services	10.00
485	Fiske, Sean C	10026199	0	L690710	Escort Services	10.00
486	Fiske, Sean C	10026199	1	L690710	Escort Services	10.00
510	Gagnon, Sabre A	10000183	0	L690710	Escort Services	10.00
597	Gretsky, Jason M	10012296	2	L690710	Escort Services	10.00
737	Jarvis, Michael	10046077	1	L690710	Escort Services	10.00
1270	Pochette, Nodeige	10028695	0	L690710	Escort Services	10.00
1288	Proia, John	10012330	0	L690710	Escort Services	10.00
1591	Thurston, Eric	10044763	1	L690710	Escort Services	10.00
1756	Wyman, Rosalind	10016714	0	L690710	Escort Services	10.00
1772	Zande, Kimberly A	10024159	0	L690710	Escort Services	10.00

Filter Mode

**Problem**

There are no totals or subtotals in the spreadsheet.

**Solution**

The query/report was not designed to provide the information. However, Excel provides several options for calculating totals and sub-totals. Microsoft Excel can automatically summarize data by calculating subtotal and grand total values in a list. To use automatic subtotals, your list must contain labeled columns and the list must be sorted on the columns for which you want subtotals, as shown below.

	A	B	C	D
1	<b>Salesperson</b>	<b>Type</b>	<b>Units</b>	<b>Sales</b>
2	Buchanan	Dairy	9,206	4,562
3	Buchanan	Dairy	2,021	9,136
4	Buchanan	Dairy	3,981	2,428
5	Buchanan	Meat	3,219	3,106
6	Buchanan	Meat	3,389	8,012
7	Davolio	Dairy	1,695	3,338
8	Davolio	Meat	230	450
9	Davolio	Meat	5,411	7,673

Column labels

List sorted by the Salesperson and Type columns

In this example, we have sorted (grouped) the output by Salesperson in order to calculate the Sales total for each one.

You can select which type of function or calculation you want Excel to perform on each group. The most common function is the Sum function, where you calculate a total (sum) for each group.

	A	B	C	D
1	<b>Salesperson</b>	<b>Type</b>	<b>Units</b>	<b>Sales</b>
2	Buchanan	Dairy	9,206	4,562
3	Buchanan	Dairy	2,021	9,136
4	Buchanan	Dairy	3,981	2,428
5	Buchanan	Meat	3,219	3,106
6	Buchanan	Meat	3,389	8,012
7	<b>Buchanan Total</b>		21,816	27,244
8	Davolio	Dairy	1,695	3,338
9	Davolio	Meat	230	450
10	Davolio	Meat	5,411	7,673
11	<b>Davolio Total</b>		7,336	11,461
12	<b>Grand Total</b>		29,152	38,705

Subtotals

Grand total

Outline symbols

In this example, you can see a Sales total for each Salesperson and a Grand Total at the bottom.

Step 1: Sort the data on the columns by which you want the subtotals grouped. Select Data > Sort... and select your primary and secondary sort criteria.

	A	B	C	D	E
1	<b>Voucher</b>	<b>Vendor</b>	<b>Name</b>	<b>Gross Paid Amount</b>	<b>Payment Date</b>
2	00000505	0000002881	Sagan, Carl	\$126.31	23-Jul-01
3	00000247	0000002881	Sagan, Carl	\$30.14	07-Jul-02
4	00000245	0000002881	Sagan, Carl	\$6.93	10-Jul-02
5	00000337	0000002881	Sagan, Carl	\$573.01	23-Jul-02
6	00000300	0000002846	Bing, Chandler	\$123.37	23-Jul-02
7	00000303	0000002856	Newton, Isaac	\$48.38	11-Jul-02
8	00000078	0000002856	Newton, Isaac	\$5.00	23-Jul-02
9	00000246	0000002817	Moriarty, James	\$13.87	11-Jul-02
10	00000260	0000002817	Moriarty, James	\$500.00	24-Jul-02
11	00000327	0000002857	Pasteur, Louis	\$676.50	24-Jul-02
12	00000298	0000002857	Pasteur, Louis	\$45.39	10-Aug-02
13	00000282	0000002850	Skywalker, Luke	\$332.87	10-Jul-02
14	00000079	0000002785	Holmes, Sherlock	\$10.00	24-Jul-02

In this example, the data was sorted by Name and by Payment Date. This will allow us to calculate the Gross Paid Amount for each person and a Grand Total.

Step 2: Select Data > Subtotals...

Step 3: Make selections as shown below.

Select how you would like your data grouped. This should be the same column by which you sorted your data in Step 1.

Select the function you'd like to use. The Sum function is the most common but you may also choose Count, Average, Max, Min, etc.

Select the checkboxes for the columns that contain the data for which you want subtotals.

**What did this do?**  
For each new name in the list, Excel will calculate the sum of the Gross Paid Amount and a grand total.

Step 4: Click OK.

**Results**

The results are shown below.

		A	B	C	D	E
	1	Voucher	Vendor	Name	Gross Paid Amount	Payment Date
	2	00000505	0000002881	Sagan, Carl	\$126.31	23-Jul-01
	3	00000247	0000002881	Sagan, Carl	\$30.14	07-Jul-02
	4	00000245	0000002881	Sagan, Carl	\$6.93	10-Jul-02
	5	00000337	0000002881	Sagan, Carl	\$573.01	23-Jul-02
-	6			<b>Sagan, Carl Total</b>	\$736.39	
	7	00000300	0000002846	Bing, Chandler	\$123.37	23-Jul-02
-	8			<b>Bing, Chandler Total</b>	\$123.37	
	9	00000303	0000002856	Newton, Isaac	\$48.38	11-Jul-02
	10	00000078	0000002856	Newton, Isaac	\$5.00	23-Jul-02
-	11			<b>Newton, Isaac Total</b>	\$53.38	
	12	00000246	0000002817	Moriarty, James	\$13.87	11-Jul-02
	13	00000260	0000002817	Moriarty, James	\$500.00	24-Jul-02
-	14			<b>Moriarty, James Total</b>	\$513.87	
	15	00000327	0000002857	Pasteur, Louis	\$676.50	24-Jul-02
	16	00000298	0000002857	Pasteur, Louis	\$45.39	10-Aug-02
-	17			<b>Pasteur, Louis Total</b>	\$721.89	
	18	00000282	0000002850	Skywalker, Luke	\$332.87	10-Jul-02
-	19			<b>Skywalker, Luke Total</b>	\$332.87	
	20	00000079	0000002785	Holmes, Sherlock	\$10.00	24-Jul-02
-	21			<b>Holmes, Sherlock Total</b>	\$10.00	
-	22			<b>Grand Total</b>	\$2,491.77	