

## Excel #9: Filtering

In general, it is always best to use a database to handle complex filtering and lookup. Create a query to retrieve exactly the data you need.

As a second-best option, built a PivotTable and use the interactive commands to select data and compute subtotals.

As a last resort, you use the internal Excel data commands.

Open the Sample spreadsheet containing bicycle sales data from the Rolling Thunder Bicycle company application.

Choose Data/Filter from the main menu.

Click the drop-down arrow for the ModelType column, deselect all and choose Mountain full.

Click the drop-down arrow for the SaleState column deselect all and choose CO (Colorado).

	A	B	C	D	E	F	G	H	I	J
	SerialNo	ModelType	Frames	OrderDate	Employ	LastNa	SalePric	ListPrice	SaleSta	ShipPri
22	31071	Mountain full	18	3-Jan-05	29387	Stenheim	\$2,650.00	\$2,651.17	CO	\$80.00
206	36454	Mountain full	18	24-Jan-05	29387	Stenheim	\$2,360.00	\$2,367.96	CO	\$70.00
317	36179	Mountain full	14.5	3-Feb-05	87295	Tudjman	\$2,460.00	\$2,464.81	CO	\$70.00
543	36549	Mountain full	19.5	26-Feb-05	98766	Korowi	\$4,290.00	\$4,292.44	CO	\$70.00
744	30960	Mountain full	19.5	22-Mar-05	89097	Dehaene	\$3,000.00	\$3,001.25	CO	\$80.00
923	31921	Mountain full	16.5	10-Apr-05	34192	Schuba	\$2,710.00	\$2,717.60	CO	\$80.00
1013	31833	Mountain full	16.5	18-Apr-05	89097	Dehaene	\$4,520.00	\$4,521.70	CO	\$80.00
1029	36607	Mountain full	18	19-Apr-05	34192	Schuba	\$4,310.00	\$4,317.17	CO	\$70.00
1140	31866	Mountain full	16.5	29-Apr-05	89097	Dehaene	\$4,630.00	\$4,648.98	CO	\$80.00
1172	31862	Mountain full	19.5	2-May-05	87295	Tudjman	\$4,870.00	\$4,648.98	CO	\$80.00
1268	31960	Mountain full	21	9-May-05	46583	Ochirbat	\$2,200.00	\$2,205.79	CO	\$80.00
1380	31843	Mountain full	16.5	20-May-05	51512	Jugnauth	\$2,730.00	\$2,735.06	CO	\$80.00
1398	32049	Mountain full	14.5	21-May-05	89097	Dehaene	\$4,510.00	\$4,514.94	CO	\$80.00
1407	32002	Mountain full	19.5	23-May-05	87295	Tudjman	\$2,840.00	\$2,848.95	CO	\$80.00
1470	31860	Mountain full	18	31-May-05	29387	Stenheim	\$2,630.00	\$2,633.26	CO	\$80.00
1524	32033	Mountain full	16.5	5-Jun-05	29387	Stenheim	\$4,720.00	\$4,725.40	CO	\$80.00
1651	37093	Mountain full	16.5	16-Jun-05	29387	Stenheim	\$4,250.00	\$4,255.00	CO	\$70.00
1652	31901	Mountain full	19.5	16-Jun-05	34192	Schuba	\$2,970.00	\$2,976.89	CO	\$80.00
1712	36892	Mountain full	19.5	23-Jun-05	89097	Dehaene	\$2,470.00	\$2,476.66	CO	\$70.00
1817	32329	Mountain full	14.5	3-Jul-05	89097	Dehaene	\$4,860.00	\$4,733.55	CO	\$80.00
2019	32309	Mountain full	16.5	29-Jul-05	51512	Jugnauth	\$2,640.00	\$2,647.76	CO	\$80.00
2127	32416	Mountain full	19.5	13-Aug-05	46583	Ochirbat	\$2,700.00	\$2,708.84	CO	\$80.00
2222	32335	Mountain full	14.5	25-Aug-05	29387	Stenheim	\$2,950.00	\$2,952.45	CO	\$80.00
2303	32319	Mountain full	18	1-Sep-05	87295	Tudjman	\$2,990.00	\$2,991.36	CO	\$80.00
2794	36217	Mountain full	21	21-Oct-05	89097	Dehaene	\$2,580.00	\$2,584.69	CO	\$70.00
2866	33092	Mountain full	18	27-Oct-05	29387	Stenheim	\$2,690.00	\$2,692.95	CO	\$80.00
3079	36909	Mountain full	18	15-Nov-05	98766	Korowi	\$2,410.00	\$2,414.24	CO	\$70.00
3623										

Choose Data/Sort & Filter/Clear to remove the filter conditions.

You can build relatively advanced filters as well, but always try to use a database first.

Switch to a new worksheet (or insert one if necessary).

In cell B1, enter: ModelType

In cell B2, enter: Mountain

In cell C1, enter: SalePrice

In cell C2, enter: >4800

Switch back to the first/data worksheet.

Choose Data/Sort & Filter/Advanced Filter from the main menu.

Click the Select button for the Criteria Range.

Click the tab for the second worksheet.

Select the four cells you entered (B1..C2)

Press the Enter key.

Select the SalePrice column.

Click the Sort Descending icon in the main toolbar.

Choose the option to Continue with the current selection.

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ModelType SalePrice
Mountain >4800
```

	A	B	C	D	E	F	G	H	I	J
	SerialNum	ModelType	FrameSize	OrderDate	Employeee	LastName	SalePrice	ListPrice	SaleState	ShipPrice
41	33407	Mountain	16.5	1-Dec-05	87295	Tudjman	\$4,900.00	\$4,892.65	FL	\$80.00
89	33105	Mountain full	14.5	2-Dec-05	89097	Dehaene	\$4,900.00	\$4,892.65	MN	\$80.00
125	33211	Mountain full	16.5	8-Dec-05	51512	Jugnauth	\$4,900.00	\$4,892.65	MI	\$80.00
178	33467	Mountain	18	12-Dec-05	15293	Venetiaan	\$4,900.00	\$4,892.65	LA	\$80.00
183	33180	Mountain full	19.5	14-Dec-05	89097	Dehaene	\$4,900.00	\$4,892.65	NY	\$80.00
203	33511	Mountain	21	29-Dec-05	87295	Tudjman	\$4,890.00	\$4,904.12	CA	\$80.00
215	33098	Mountain full	16.5	10-Oct-05	46583	Ochirbat	\$4,890.00	\$4,847.62	MI	\$80.00
267	33108	Mountain full	19.5	13-Oct-05	87295	Tudjman	\$4,890.00	\$4,858.88	IA	\$80.00
279	33304	Mountain full	16.5	16-Oct-05	34192	Schuba	\$4,890.00	\$4,858.88	CT	\$80.00
294	33184	Mountain full	21	16-Oct-05	29387	Stenheim	\$4,890.00	\$4,858.88	TX	\$80.00
303	33374	Mountain full	16.5	17-Oct-05	87295	Tudjman	\$4,890.00	\$4,858.88	MA	\$80.00
323	33391	Mountain full	19.5	18-Oct-05	51512	Jugnauth	\$4,890.00	\$4,858.88	NJ	\$80.00
407	33364	Mountain full	18	21-Oct-05	89097	Dehaene	\$4,890.00	\$4,858.88	CA	\$80.00
514	33510	Mountain	21	24-Oct-05	87295	Tudjman	\$4,890.00	\$4,868.29	NC	\$80.00
535	33106	Mountain full	19.5	24-Oct-05	34192	Schuba	\$4,890.00	\$4,868.29	MO	\$80.00
564	33306	Mountain full	19.5	26-Oct-05	46583	Ochirbat	\$4,890.00	\$4,868.29	AR	\$80.00
633	33235	Mountain full	19.5	3-Nov-05	29387	Stenheim	\$4,880.00	\$4,870.90	MA	\$80.00
644	33445	Mountain	14.5	10-Nov-05	29387	Stenheim	\$4,880.00	\$4,870.90	DC	\$80.00
665	33328	Mountain full	14.5	13-Nov-05	34192	Schuba	\$4,880.00	\$4,870.90	TX	\$80.00
838	33094	Mountain full	19.5	17-Nov-05	87295	Tudjman	\$4,880.00	\$4,870.90	OH	\$80.00
853	33446	Mountain	16.5	18-Nov-05	29387	Stenheim	\$4,880.00	\$4,870.90	MD	\$80.00
903	33375	Mountain full	14.5	19-Nov-05	29387	Stenheim	\$4,880.00	\$4,879.18	NJ	\$80.00
955	33121	Mountain full	14.5	19-Nov-05	89097	Dehaene	\$4,870.00	\$4,879.18	CA	\$80.00
1040	33231	Mountain full	16.5	29-Nov-05	87295	Tudjman	\$4,870.00	\$4,882.76	SC	\$80.00
1082	32387	Mountain full	14.5	26-Jul-05	15293	Venetiaan	\$4,870.00	\$4,740.35	TX	\$80.00
1128	32270	Mountain full	18	7-Aug-05	98766	Korowi	\$4,870.00	\$4,740.35	NY	\$80.00
1172	32326	Mountain full	16.5	18-Aug-05	34192	Schuba	\$4,870.00	\$4,748.24	MO	\$80.00
1204	32302	Mountain full	16.5	19-Sep-05	34192	Schuba	\$4,870.00	\$4,843.85	NJ	\$80.00

You can create relatively complex conditions.  
 Conditions that are displayed on the same row are joined with an AND clause.  
 Different rows are connected with an OR clause.  
 But be careful. The entire row is connected by OR, not just a single column.

ModelType SalePrice  
 Mountain >4800  
 Race

The filter condition in this example translates to:  
 ((ModelType = Mountain) AND (SalePrice > 4800))  
 OR (ModelType=Race)

Notice that no condition is applied to the price of the Race bike.