

You're working with sales data for a particular week for four new books, at the three bookstore sites in Colorado. You've got the data for the sales for each day, for each book and site, as well as the number of units sold for each data and site. However, your boss wants to slice and dice and analyze the information a bit more.

Creating a Simple Analysis With a Spreadsheet

You're going to start off with the simplest assignment; crunching the numbers with some addition to see the total sales per store and date.

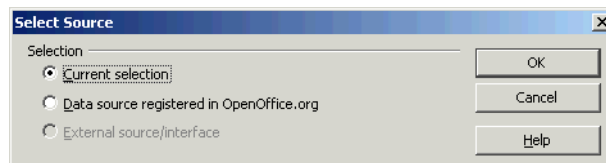
- 1 Open the `datapilotspreadsheet.ods`.

	A	B	C	D	E
1	Date	Store	Book	Daily Sales	Units Sold
2	09/15/2006	Boulder	Open Source Case Studies	\$6,576.00	219
3	09/15/2006	Boulder	Living in Linux	\$7,465.00	373
4	09/15/2006	Boulder	Crossing the Digital Divide	\$1,978.00	66
5	09/15/2006	Boulder	Wide Open Source	\$1,818.00	91
6	09/15/2006	Denver	Open Source Case Studies	\$2,722.00	91
7	09/15/2006	Denver	Living in Linux	\$1,767.00	88
8	09/15/2006	Denver	Crossing the Digital Divide	\$3,422.00	114
9	09/15/2006	Denver	Wide Open Source	\$1,711.00	86
10	09/15/2006	Fort Collins	Open Source Case Studies	\$1,499.00	50
11	09/15/2006	Fort Collins	Living in Linux	\$1,200.00	60
12	09/15/2006	Fort Collins	Crossing the Digital Divide	\$2,022.00	67
13	09/15/2006	Fort Collins	Wide Open Source	\$2,767.00	138
14	09/16/2006	Boulder	Open Source Case Studies	\$3,887.00	130
15	09/16/2006	Boulder	Living in Linux	\$1,899.00	95
16	09/16/2006	Boulder	Crossing the Digital Divide	\$6,576.00	219
17	09/16/2006	Boulder	Wide Open Source	\$2,476.00	124
18	09/16/2006	Denver	Open Source Case Studies	\$1,767.00	59
19	09/16/2006	Denver	Living in Linux	\$1,566.00	78
20	09/16/2006	Denver	Crossing the Digital Divide	\$1,480.00	49
21	09/16/2006	Denver	Wide Open Source	\$4,324.00	216
22	09/16/2006	Fort Collins	Open Source Case Studies	\$7,545.00	252
23	09/16/2006	Fort Collins	Living in Linux	\$5,454.00	273
24	09/16/2006	Fort Collins	Crossing the Digital Divide	\$7,465.00	249
25	09/16/2006	Fort Collins	Wide Open Source	\$2,978.00	149
26	09/17/2006	Boulder	Open Source Case Studies	\$4,343.00	145
27	09/17/2006	Boulder	Living in Linux	\$2,343.00	117
28	09/17/2006	Boulder	Crossing the Digital Divide	\$1,000.00	66

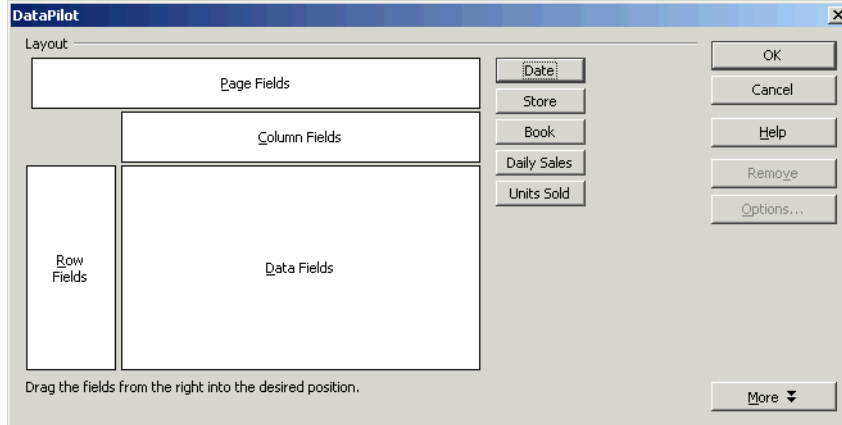
- 2 Click in the upper left corner of the spreadsheet.

	A	B
1	Date	Store
2	09/15/2006	Boulder
3	09/15/2006	Boulder

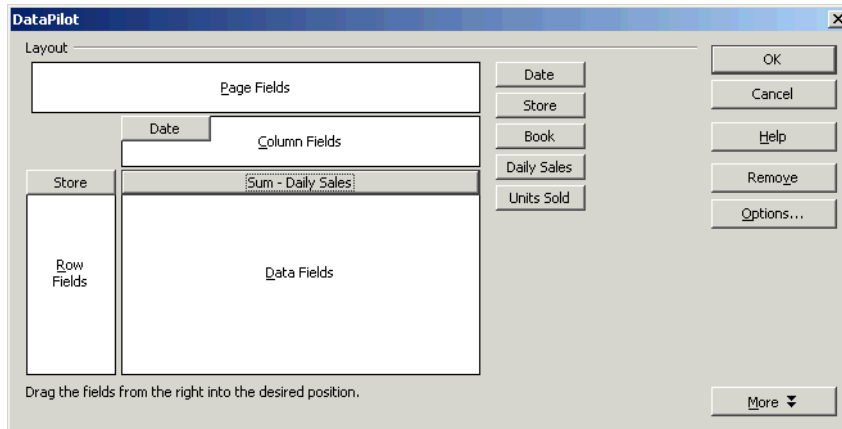
- 3 Choose `Data > Data Pilot > Start`.
- 4 Choose to use the current selection. Click `OK`.



5 The layout window will appear.



6 Drag the indicated fields to the locations shown, one at a time.

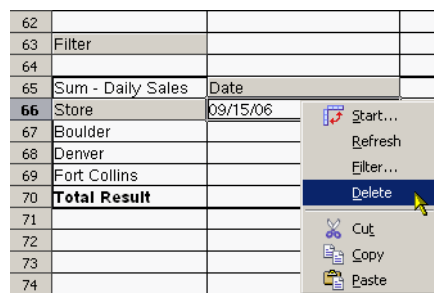


7 Click OK.

8 The analysis will appear below the data.

60	09/19/2006	Fort Collins	Crossing the Digital Divide	\$3,427.71	114			
61	09/19/2006	Fort Collins	Wide Open Source	\$1,713.86	86			
62								
63	Filter							
64								
65	Sum - Daily Sales	Date						
66	Store	09/15/06	09/16/06	09/17/06	09/18/06	09/19/06	Total Result	
67	Boulder	\$17,837.00	\$14,838.00	\$13,219.00	\$10,583.82	\$17,143.29	\$73,621.11	
68	Denver	\$9,622.00	\$9,137.00	\$10,190.74	\$12,395.33	\$12,241.20	\$53,586.27	
69	Fort Collins	\$7,488.00	\$23,442.00	\$7,838.53	\$18,818.68	\$9,638.06	\$67,225.27	
70	Total Result	\$34,947.00	\$47,417.00	\$31,248.28	\$41,797.83	\$39,022.54	\$194,432.65	

9 Right-click somewhere in the analysis and choose Delete; you're going to create more analyses in this spreadsheet.



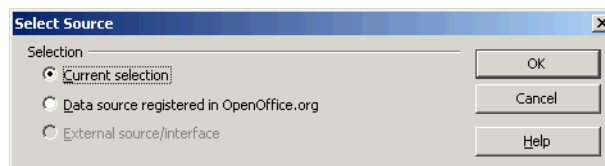
10 Optional: Repeat these steps. Once you've dragged the Daily Sales field onto the layout area, double-click it and choose Average and click OK. Click OK again in the layout window; you'll see different results for the dollar amounts.

Using the Filtering and Detail Options

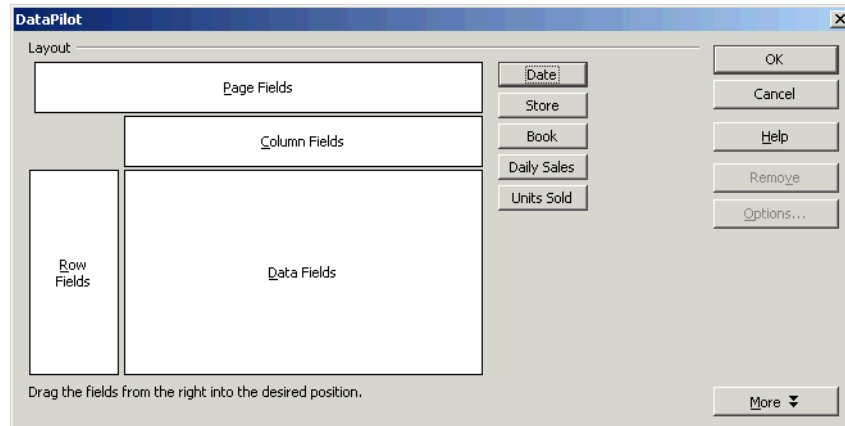
- 1 Be sure the **datapilotspreadsheet.ods** file is still open.
- 2 Click in the upper left corner of the spreadsheet.

	A	B
1	Date	Store
2	09/15/2006	Boulder
3	09/15/2006	Boulder

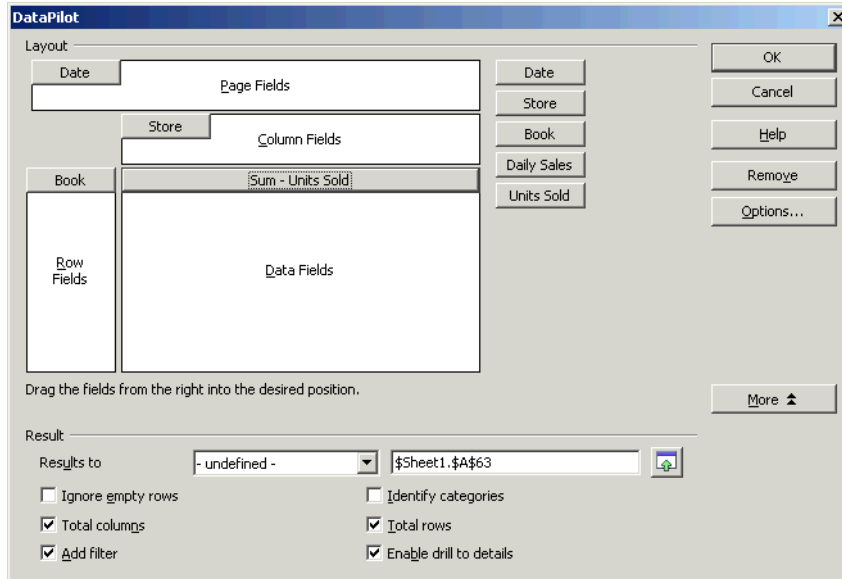
- 3 Choose Data > Data Pilot > Start.
- 4 Choose to use the current selection. Click OK.



- 5 The layout window will appear.



6 Drag the indicated fields to the locations shown.



7 Click OK.

8 You'll see the results.

Filter					
Date	- all -				
Sum - Units Sold	Store				
Book	Boulder	Denver	Fort Collins		Total Result
Crossing the Digital Divide		626	458	732	1817
Living in Linux		873	586	724	2183
Open Source Case Studies		810	580	556	1947
Wide Open Source		655	537	706	1897
Total Result		2964	2161	2718	7844

9 You can narrow down the data by date. Click and hold down on the Data dropdown list and select one date. The data will change.

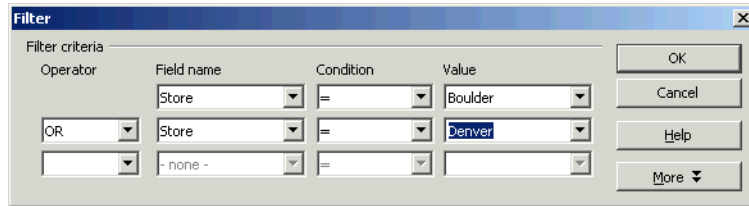
Filter					
Date	09/17/06				
Sum - Units Sold	Store				
Book	Boulder	Denver	Fort Collins		Total Result
Crossing the Digital Divide		66	91	50	207
Living in Linux		117	68	86	271
Open Source Case Studies		145	145	114	404
Wide Open Source		227	88	60	376
Total Result		556	392	310	1258

10 Click in the dropdown list again and select All.

Filter					
Date	- all -				
Sum - Units Sold	Store				
Book	Boulder	Denver	Fort Collins		Total Result
Crossing the Digital Divide		626	458	732	1817
Living in Linux		873	586	724	2183
Open Source Case Studies		810	580	556	1947
Wide Open Source		655	537	706	1897
Total Result		2964	2161	2718	7844

11 Click the Filter button.

12 The Filter window will appear. Set up the filter by selecting the values shown; you want to show values for either the Boulder store or the Denver store.

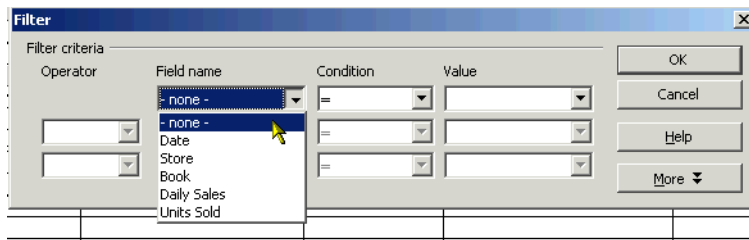


13 Click OK.

14 You'll see the data for your filter selections.

Filter				
Date	- all -			
Sum - Units Sold	Store			
Book	Boulder	Denver		Total Result
Crossing the Digital Divide		626	458	1084
Living in Linux		873	586	1459
Open Source Case Studies		810	580	1391
Wide Open Source		655	537	1191
Total Result		2964	2161	5125

15 Click the Filter button again and select None in the first list.

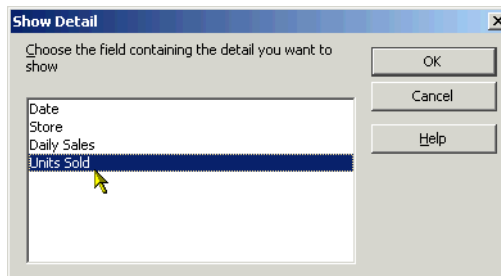


16 Click OK. The data will update to show everything, without a filter.

17 You'd like to see the actual data that this is based on, for the Living in Linux book. Double-click the Living in Linux book field, shown.

Sum - Units Sold	Store	
Book	Boulder	Denver
Crossing the Digital Divide		626 458
Living in Linux		873 586
Open Source Case Studies		810 580
Wide Open Source		655 537
Total Result		2964 2161

18 In the window that appears, choose Units Sold.



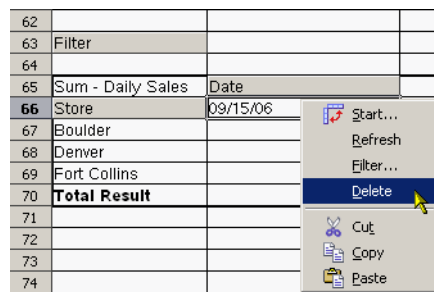
19 Click OK.

20 You'll see the detail for that particular book, for all the stores.

Sum - Units Sold	Store			Total Result
Book	Units Sold	Boulder	Denver	Fort Collins
Crossing the Digital Divide		626	458	732
Living in Linux	60			60
	68			68
	78			78
	86			86
	88			88
	89			89
	95	95		95
	117	117		117
	124		124	124
	139	139		139
	149	149		149
	216			216
	228		228	228
	273			273
	373	373		373
Open Source Case Studies		810	580	556
Wide Open Source		655	537	706
Total Result		2964	2161	2718

21 Double-click the same Living in Linux cell to go back to the normal view.

22 Right-click somewhere in the analysis and choose Delete; you're going to create more analyses in this spreadsheet.



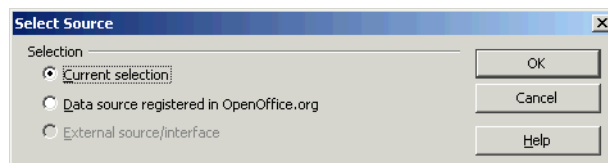
Applying Different Functions

Your boss wants you to do some more advanced analysis. She wants to know, for every book, did the total sales go up or down each day. This means the amounts for each book, each day, have to be added, then compared to the previous day.

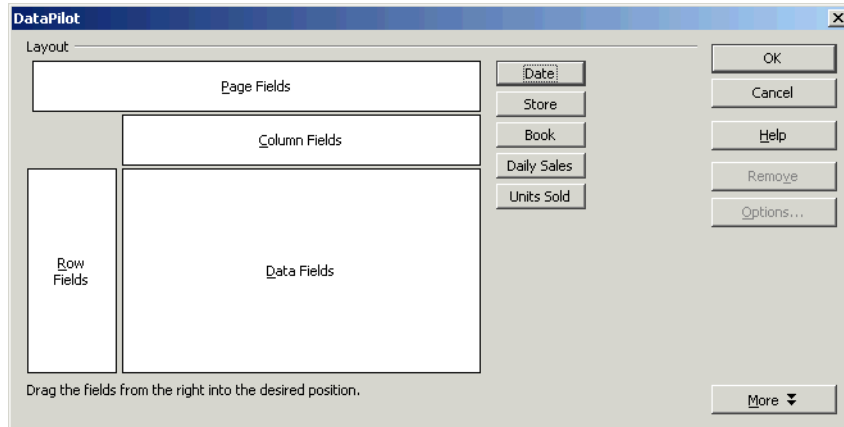
- 1 Be sure the **datapilotspreadsheet.ods** file is still open.
- 2 Click in the upper left corner of the spreadsheet.

	A	B
1	Date	Store
2	09/15/2006	Boulder
3	09/15/2006	Boulder

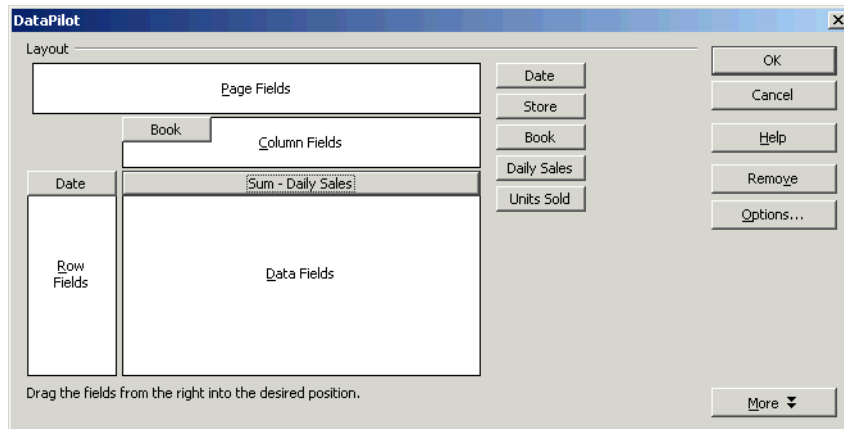
- 3 Choose Data > Data Pilot > Start.
- 4 Choose to use the current selection. Click OK.



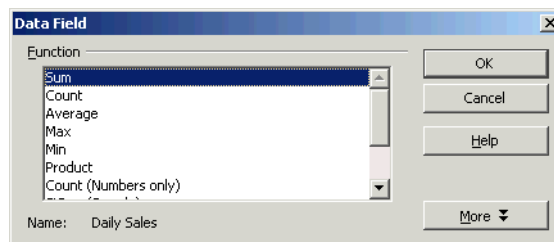
5 The layout window will appear.



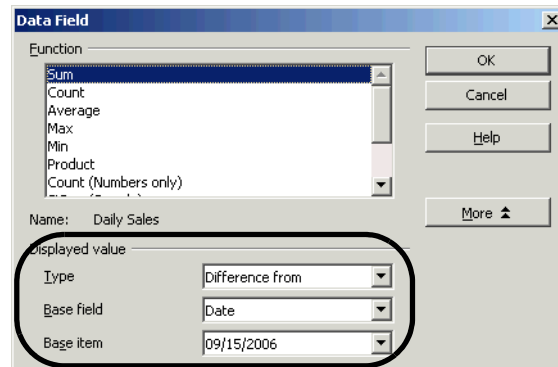
6 Drag the indicated fields into the areas shown.



7 Select the Sum -- Daily Sales field and click Options (or double-click the field). The Data Field window will appear.



- 8 Leave Sum selected, but in the Type field select Difference From, in the Base field select Date, and in the Base Item field select 09/15/2006.



- 9 Click OK.
 10 Click OK in the main layout field.
 11 You'll see the results; the difference in total amounts sold, from the previous day, is shown for each book.

Filter					
Sum - Daily Sales	Book				
Date	Crossing the Digital Divide	Living in Linux	Open Source Case Studies	Wide Open Source	Total Result
09/15/06					
09/16/06	\$8,099.00	-\$1,513.00	\$2,402.00	\$3,482.00	\$12,470.00
09/17/06	-\$1,209.48	-\$5,021.57	\$1,313.85	\$1,218.47	-\$3,698.72
09/18/06	\$5,788.01	-\$857.02	-\$710.59	\$2,630.44	\$6,850.83
09/19/06	\$4,698.95	-\$1,132.78	\$1,390.43	-\$881.06	\$4,075.54
Total Result					

- 12 Right-click on the results and choose Delete.

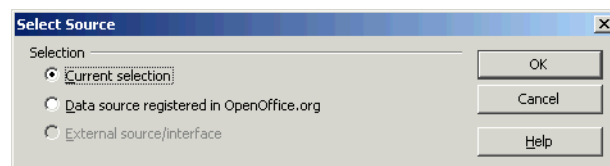
Creating an Analysis Subtotals and Excluding Data

You have another set of options: showing subtotals and excluding one or more items. For instance, if you want to show information for all stores but one, or all books but one, you can exclude it from the results.

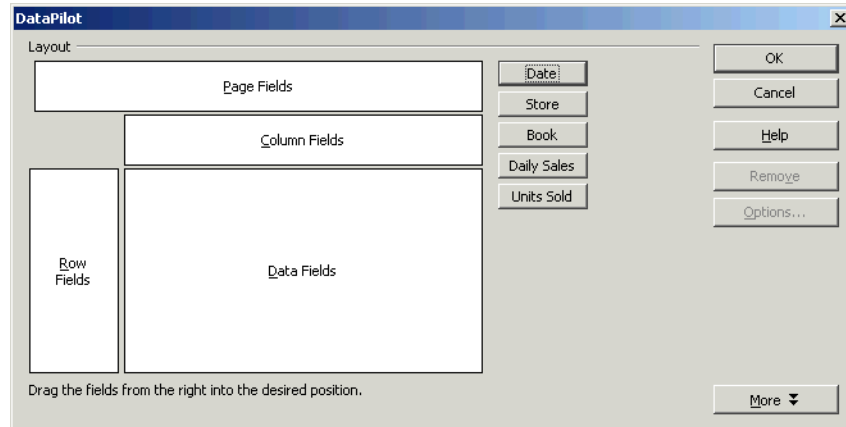
- 1 Be sure the **datapilotspreadsheet.ods** file is still open.
- 2 Click in the upper left corner of the spreadsheet.

	A	B
1	Date	Store
2	09/15/2006	Boulder
3	09/15/2006	Boulder

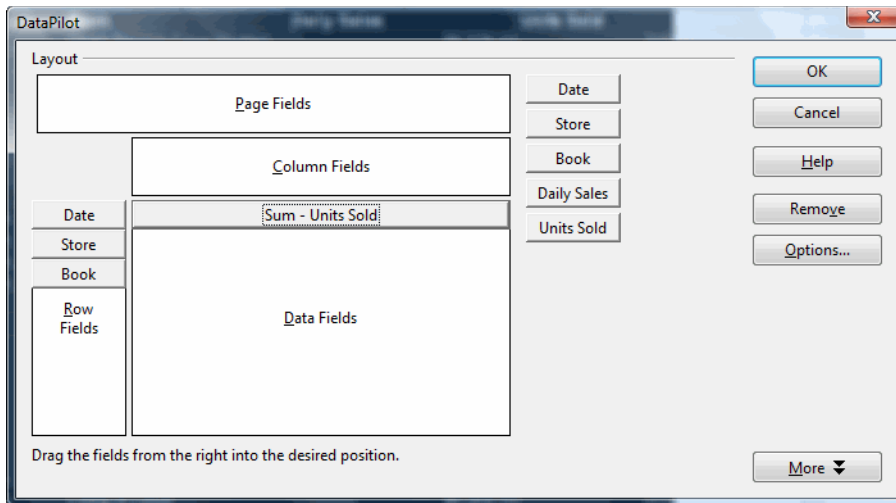
- 3 Choose Data > Data Pilot > Start.
- 4 Choose to use the current selection. Click OK.



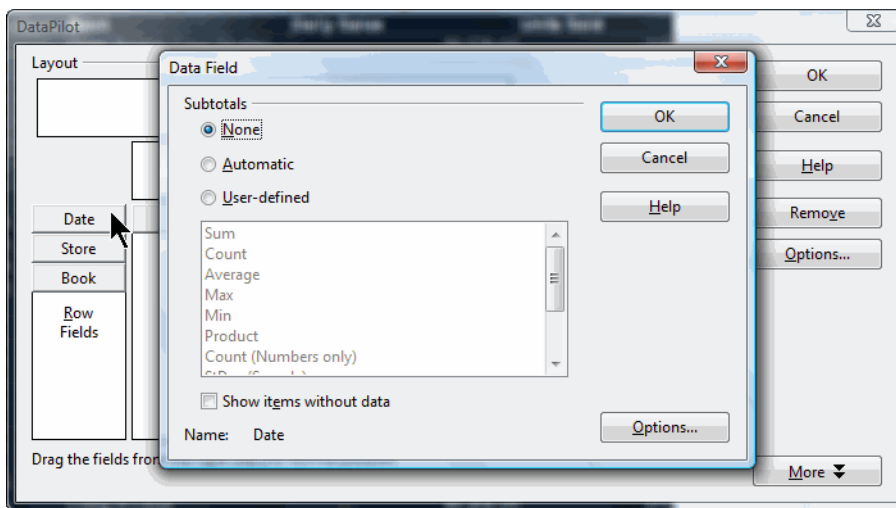
5 The layout window will appear.



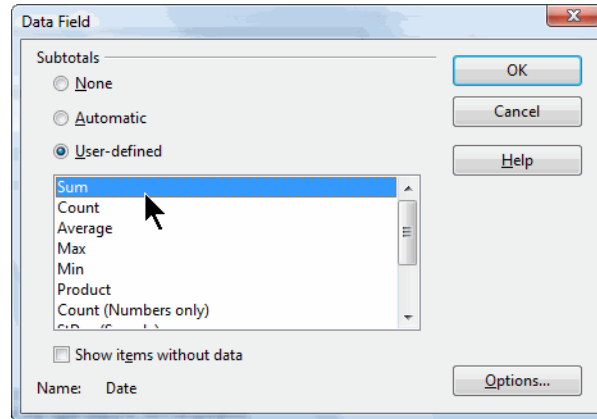
6 Drag the following fields onto the layout as shown.



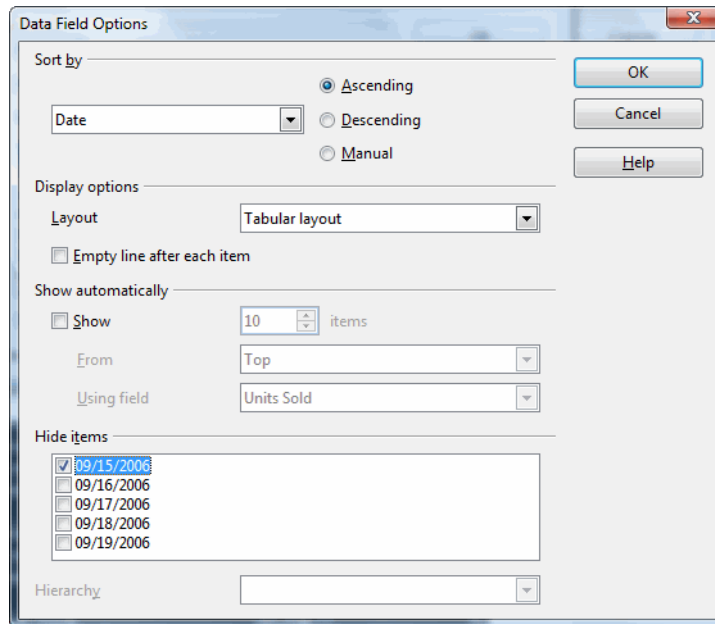
7 Double-click the Date field at the left side of the layout. You'll see the Data Field options window.



- 8 Select User-Defined and Sum for your subtotal options.



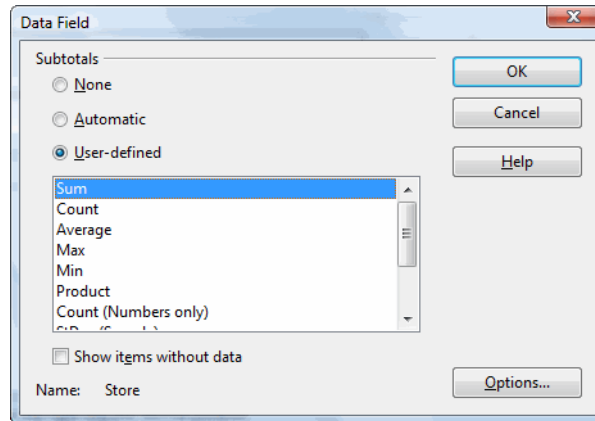
- 9 Click the Options button to open an additional window. Leave the defaults of Ascending and Tabular Layout, but in the Hide Items section at the bottom, select the first date, 9/15. The store had to close early that day and it's not a good representative of your data.



- 10 Click OK.

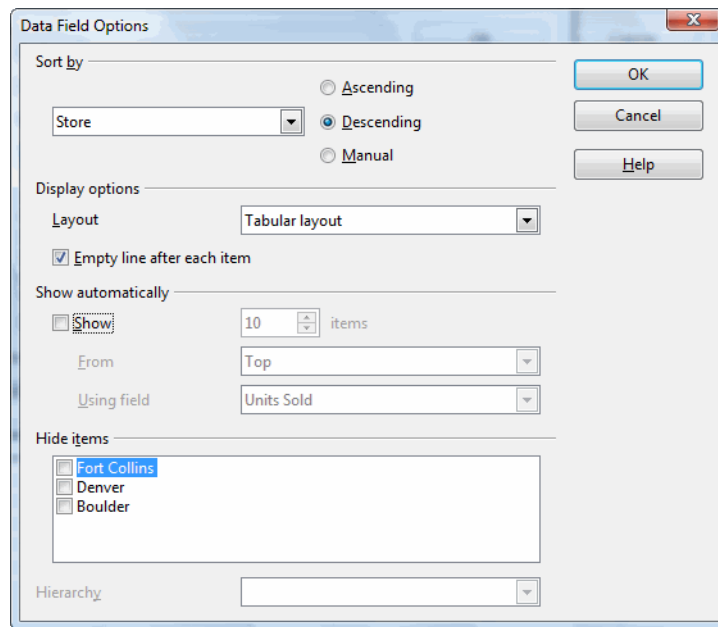
- 11 Double-click the Store field.

12 Select User-Defined and Sum again as your subtotal options.



13 Click the Options button.

14 Set the sort order at the top as Descending.



15 Click OK in the options window and twice more to finish.

16 You'll see the results. There is a line after the Store-level units sold subtotals but not after the Date-level units sold subtotals, which is what you specified. The stores are sorted in descending order.

	A	B	C	D
63	Filter			
64				
65	Date	Store	Book	
66	09/16/06	Fort Collins	Crossing the Digital Divide	249
67			Living in Linux	273
68			Open Source Case Studies	252
69			Wide Open Source	149
70		Fort Collins Sum - Units Sold		922
71				
72		Denver	Crossing the Digital Divide	49
73			Living in Linux	78
74			Open Source Case Studies	59
75			Wide Open Source	216
76		Denver Sum - Units Sold		403
77				
78		Boulder	Crossing the Digital Divide	219
79			Living in Linux	95
80			Open Source Case Studies	130
81			Wide Open Source	124
82		Boulder Sum - Units Sold		568
83				
84	09/16/2006 Sum - Units Sold			1893
85	09/17/06	Fort Collins	Crossing the Digital Divide	50
86			Living in Linux	86
87			Open Source Case Studies	114
88			Wide Open Source	60
89		Fort Collins Sum - Units Sold		310
90				
91		Denver	Crossing the Digital Divide	91
92			Living in Linux	68
93			Open Source Case Studies	145
94			Wide Open Source	88

17 Optional: Right-click on the analysis and choose Start. Double-click the Store field and choose No subtotals. Double-click the Date field and choose the outline layout with the subtotals at the top. Click OK to finish and see the results.

	A	B	C	D
62				
63	Filter			
64				
65	Date	Store	Book	
66	09/15/06			1444
67		Fort Collins	Crossing the Digital Divide	67
68			Living in Linux	60
69			Open Source Case Studies	50
70			Wide Open Source	138
71				
72		Denver	Crossing the Digital Divide	114
73			Living in Linux	88
74			Open Source Case Studies	91
75			Wide Open Source	86
76				
77		Boulder	Crossing the Digital Divide	66
78			Living in Linux	373
79			Open Source Case Studies	219
80			Wide Open Source	91
81				
82	09/16/06			1893
83		Fort Collins	Crossing the Digital Divide	249
84			Living in Linux	273
85			Open Source Case Studies	252
86			Wide Open Source	149
87				
88		Denver	Crossing the Digital Divide	49
89			Living in Linux	78
90			Open Source Case Studies	59
91			Wide Open Source	216
92				
93		Boulder	Crossing the Digital Divide	219

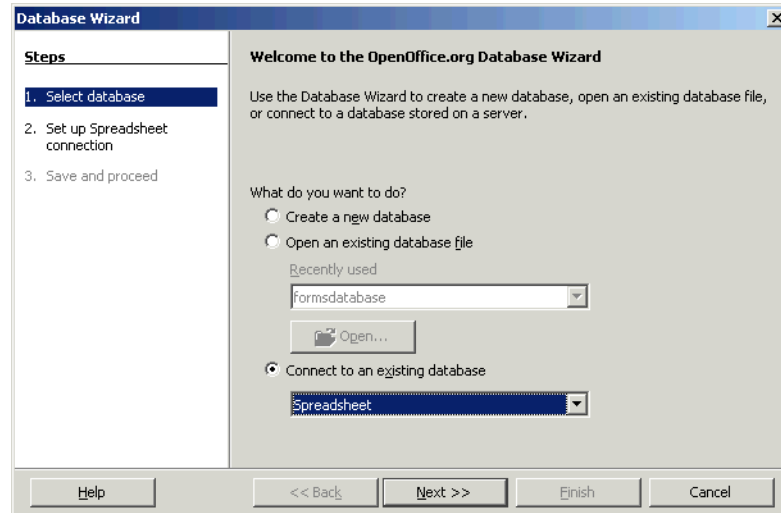
Using an External Data Source and Additional Options

You can base an analysis on spreadsheet data, or a data source. To practice this, you're going to create a data source from the spreadsheet.

- 1 Close the **datapilotspreadsheet.ods** spreadsheet. Don't save changes.
- 2 Choose File > New > Database. The new database window will appear.

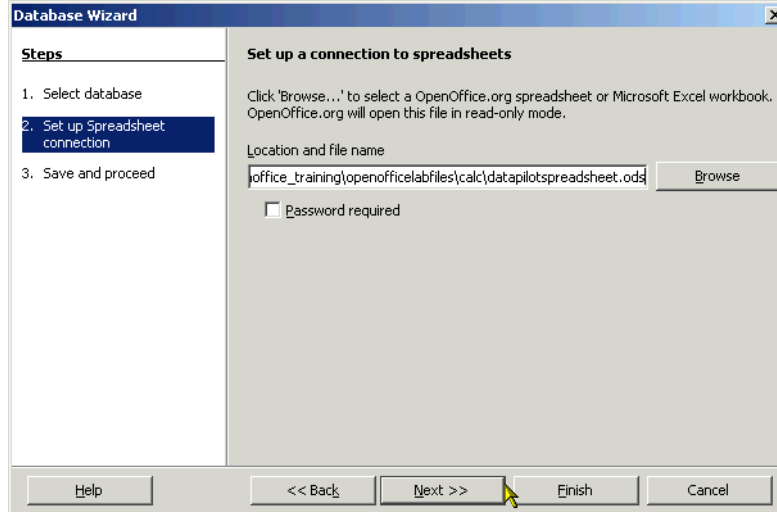


- 3 Select Connect to An Existing Database and select Spreadsheet.



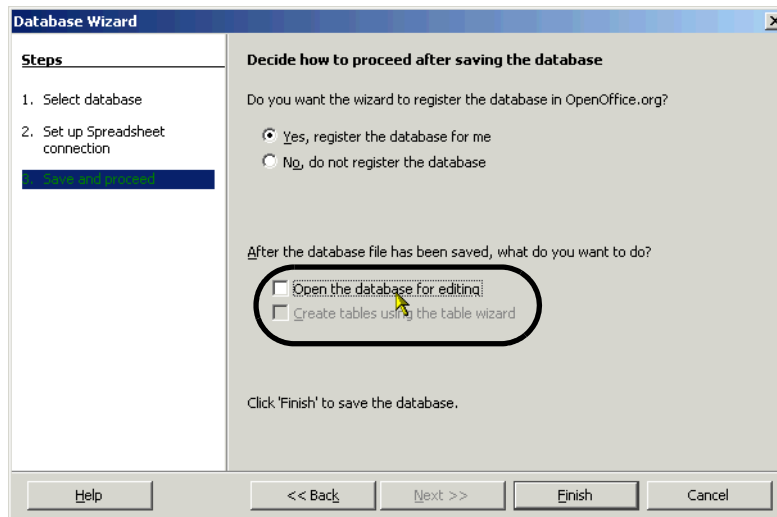
- 4 Click Next.

- 5 Click Browse and find the **datapilotspreadsheet.ods** file in your Calc lab files.



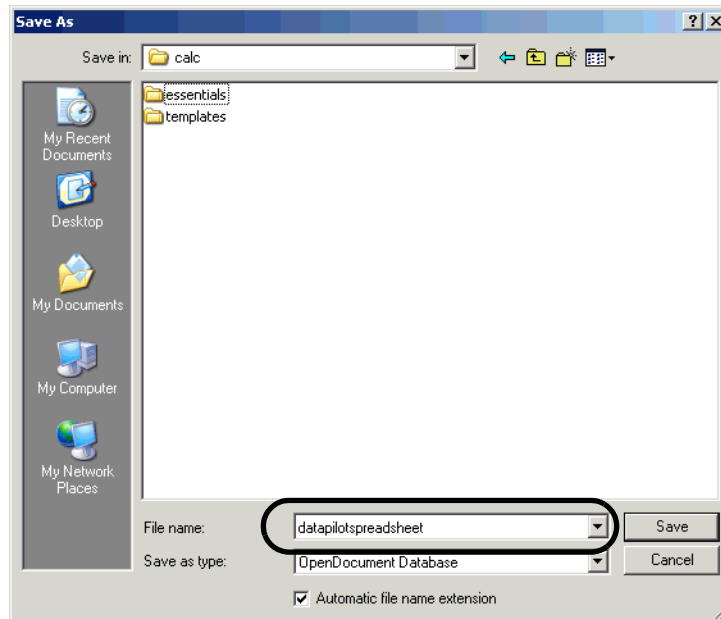
- 6 Click Next.

- 7 Unmark the option for editing the database.



- 8 Click Finish.

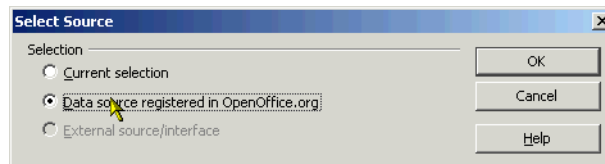
9 Save the database and call it **datapilotspreadsheet**.



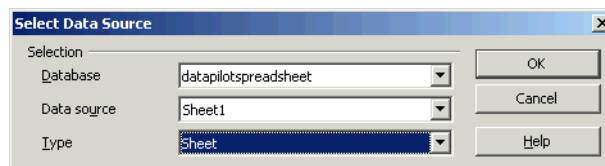
10 You're now done creating the database, and you're ready to create the analysis. Create a new spreadsheet by choosing File > New > Spreadsheet.

11 Choose Data > Data Pilot > Start.

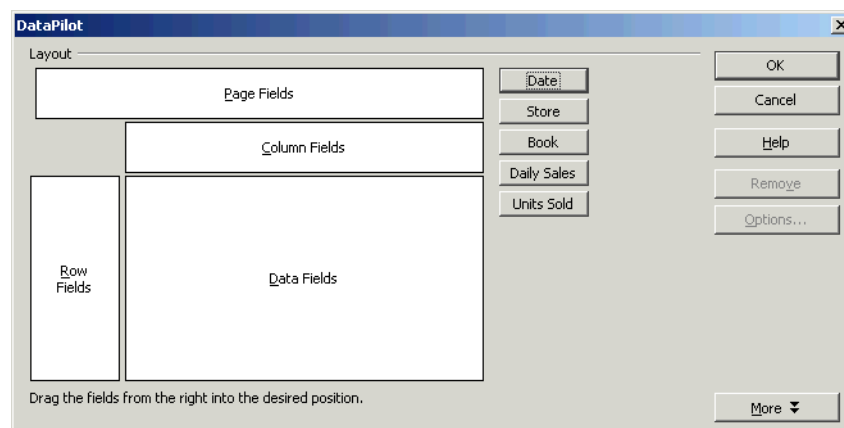
12 In the Select Source window, select Data Source Registered in OpenOffice.org. Click OK.



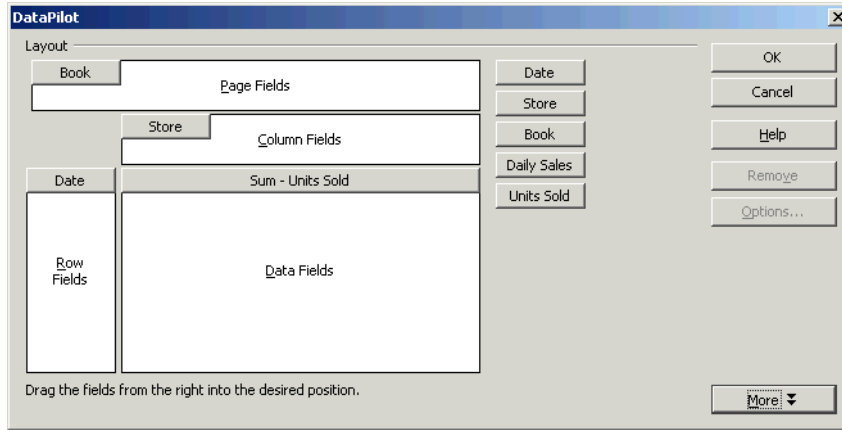
13 In the Select Data Source window, make the indicated selections. Click OK.



14 The main layout window will appear.

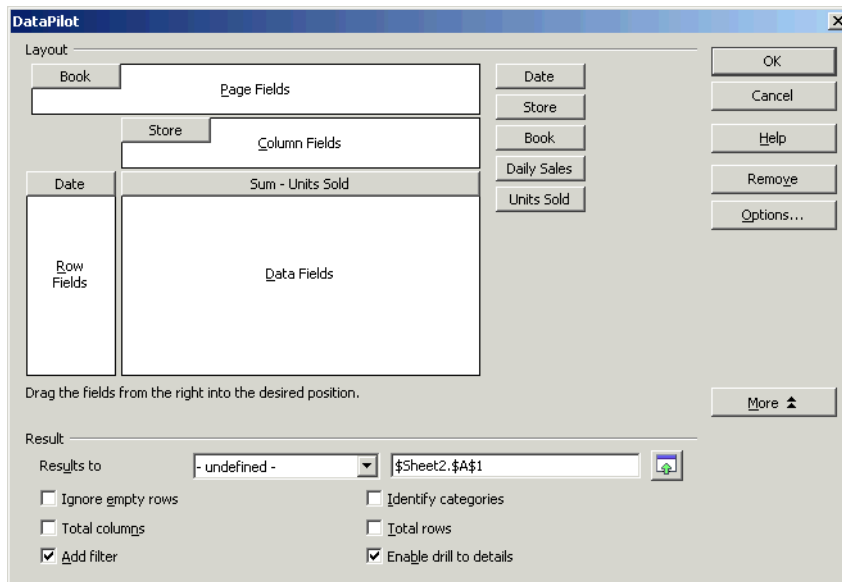


15 You're going to use some additional options in this lesson. Drag the indicated fields to the locations shown.



16 Click More.

17 Be sure that your window matches the options shown; unmark or mark options as necessary. Also, in the Results To lists, be sure that **Undefined** and **\$\$heet2.\$A:\$1** are the values.



18 Click OK.

19 Click on the tab for Sheet2. You'll see the results.

	A	B	C	D
1	Book	- all -		
2				
3	Sum - Units Sold	Store		
4	Date	Boulder	Denver	Fort Collins
5	09/15/06	749.61	378.86	315.86
6	09/16/06	567.74	402.92	922.31
7	09/17/06	555.68	391.91	309.97
8	09/18/06	430.81	480.79	790.74
9	09/19/06	660.46	506.67	379.49
10				
11				
12				
13				

Sheet 2 / 3 Default 100% STD * Sum=922.31

20 Click in the Book dropdown list and select any one of the books.

	A	B
1	Book	- all -
2		
3	Sum - Units Sold	Crossing the Digital Divide
4	Date	Living in Linux
5	09/15/06	Open Source Case Studies
6	09/16/06	Wide Open Source
7	09/17/06	
8	09/18/06	
9	09/19/06	
10		

21 You'll see the results only for the selected book.

	A	B	C	D
1	Book	Living in Linux		
2				
3	Sum - Units Sold	Store		
4	Date	Boulder	Denver	Fort Collins
5	09/15/06	373.44	88.39	60.03
6	09/16/06	95	78.34	272.84
7	09/17/06	117.21	67.78	85.66
8	09/18/06	138.53	123.97	216.49
9	09/19/06	149.1	227.55	88.54
10				
11				
12				
13				

Sheet 2 / 3 Default 100% STD * Sum=272.84