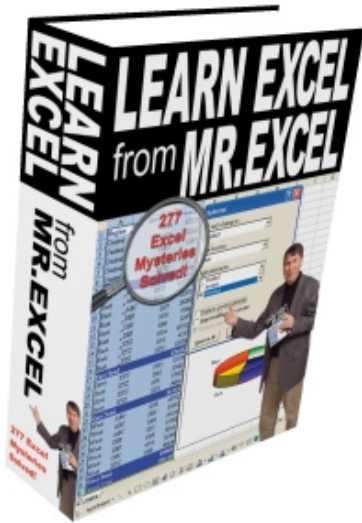




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This week - the last five pivot table topics..

USE AUTOFORMAT WITH PIVOT TABLES

Problem: Due to the dynamic nature of pivot tables, it is fairly hard to format them. As shown in Fig. 943, you might want to format the headings in D4:F4 with a particular format because they are column headings. However, when you spin the pivot table to another shape, the formats will be lost.

	A	B	C	D	E	F	G
1							
2							
3	Sum of Revenue			Product ▾			
4	Years ▾	Quarters ▾	Date ▾	ABC	DEF	XYZ	Grand Total
5	2004	Qtr1	Jan	262,726	94,413	173,607	530,746
6			Feb	171,194	174,365	220,483	566,042
7			Mar	119,131	185,336	181,890	486,357
8		Qtr2	Apr	182,134	157,101	229,408	568,643
9			May	194,643	212,803	212,073	619,519
10			Jun	145,088	143,024	119,340	407,452
11		Qtr3	Jul	154,812	264,976	261,830	681,618
12			Aug	184,452	136,723	277,461	598,636
13			Sep	189,193	207,730	76,593	473,516
14		Qtr4	Oct	196,345	173,816	243,071	613,232
15			Nov	106,523	259,841	167,388	533,752
16			Dec	205,419	153,586	264,359	623,364
17	Grand Total			2,111,660	2,163,714	2,427,503	6,702,877
18							
19							

Fig. 943

Strategy: Use one of the 22 built-in AutoFormats for pivot tables. Even if you don't normally use AutoFormat in regular Excel, you should consider it in pivot tables.

- 1) Use the Format Report button on the PivotTable toolbar, as shown in Fig. 944.

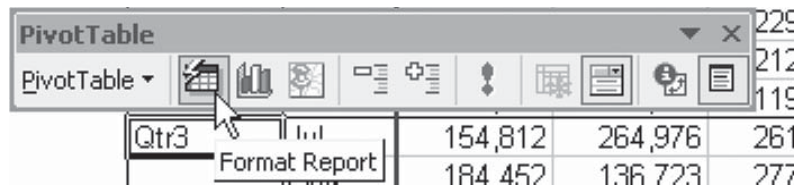


Fig. 944

The AutoFormat dialog box initially shows six different report layouts. The examples show the formatting on a report with four fields in the Column area. As shown in Fig. 945, in Report 1, they are showing you that the innermost level (Zone) would have a normal black font on white. The next level (Area) would have a black font on a gray background. The outermost level (Qtr) would have a bold font.

**Part
III**

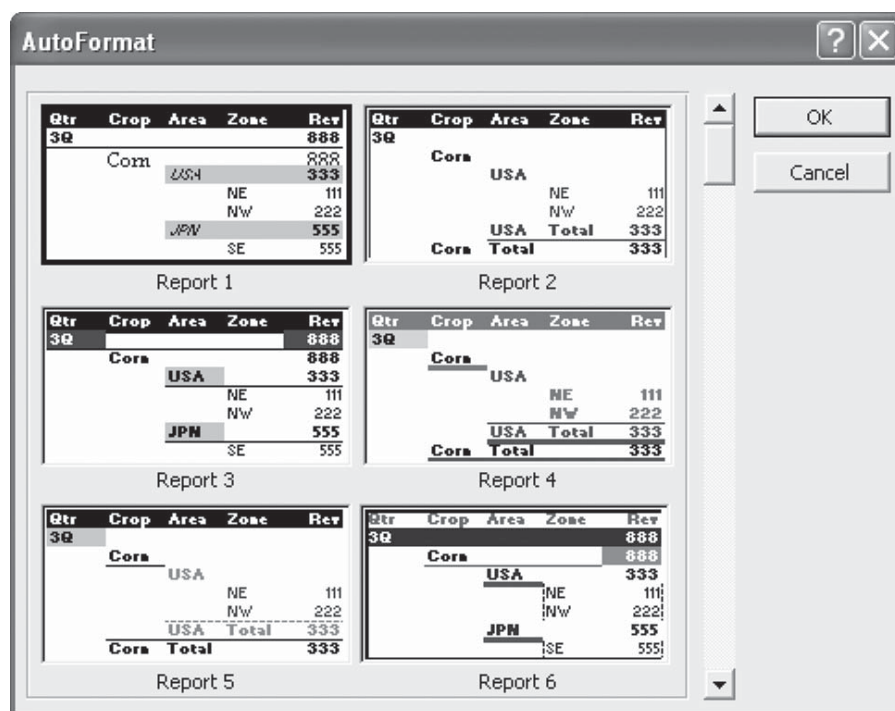


Fig. 945

- 2) As shown in Fig. 946, use the scroll bar to see the formats for Report 7 through Report 10 and Tables 1 through Table 2.

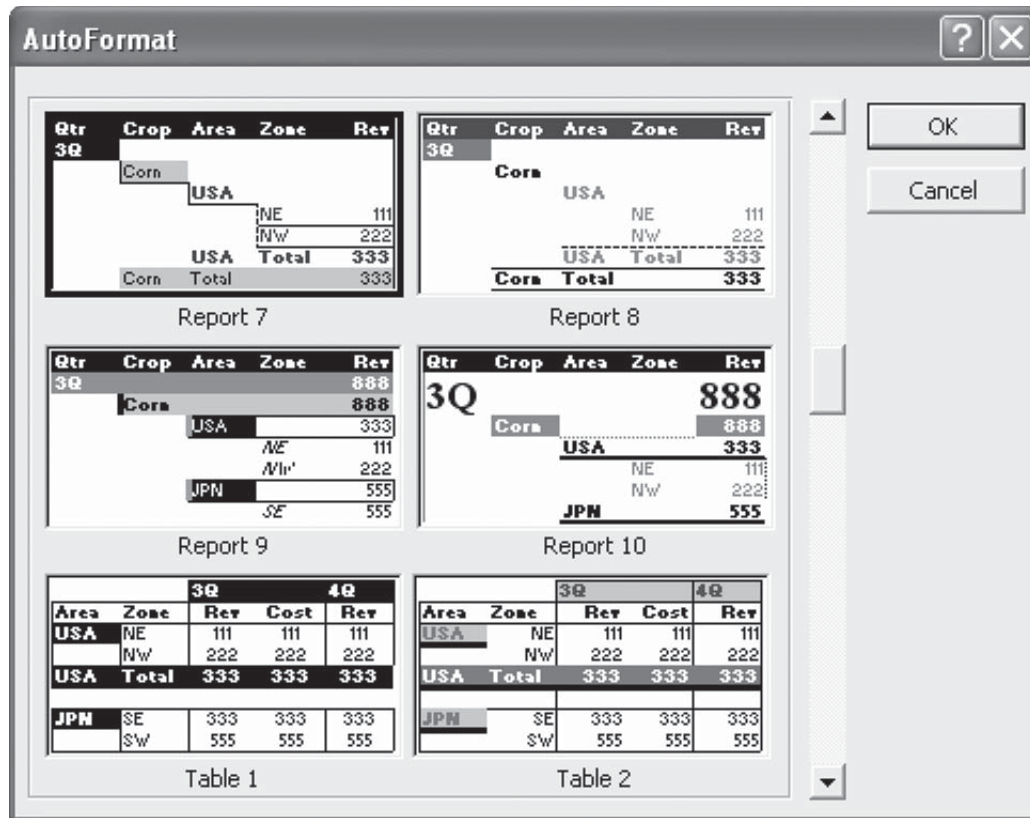


Fig. 946

Fig. 947 shows Table 3 through Table 8.

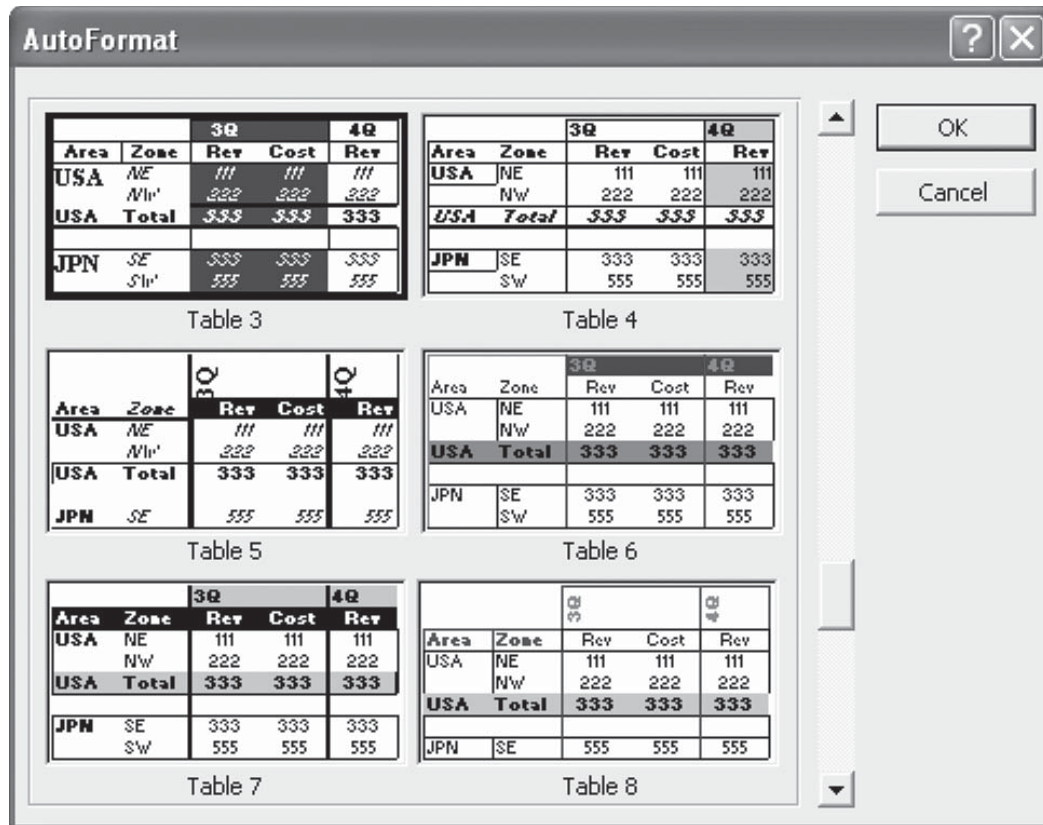


Fig. 947

The last few options are Table 9, Table 10, PivotTable Classic, and None, as shown in Fig. 948.

		3Q	4Q	
Area	Zone	Rev	Cost	Rev
USA	NE	111	111	111
	Nw	222	222	222
USA	Total	333	333	333
JPN	SE	555	555	555

Table 9

		3Q	4Q	
Area	Zone	Rev	Cost	Rev
USA	NE	111	111	111
	Nw	222	222	222
USA	Total	333	333	333
JPN	SE	333	333	333
	Sw	555	555	555

Table 10

		3Q	4Q	
Area	Zone	Rev	Cost	Rev
USA	NE	111	111	111
	Nw	222	222	222
USA	Total	333	333	333
JPN	SE	333	333	333
	Sw	555	555	555
JPN	Total	888	888	888

PivotTable Classic

		3Q	4Q	
Area	Zone	Rev	Cost	Rev
USA	NE	111	111	111
	Nw	222	222	222
USA	Total	333	333	333
JPN	SE	333	333	333
	Sw	555	555	555
JPN	Total	888	888	888

None

Fig. 948

- 3) Choose one of the formats and select OK.

Result: You can quickly apply a new look to the data. Fig. 949 shows Report 6.

	A	B	C	D	E	F
1						
2						
3	Region	Product	Year	Quarter	Date	Revenue
4	East					2,477,778
5		ABC				703,255
6			2004			
7				Qtr1		
8					Jan	120,012
9					Feb	26,693
10					Mar	32,051
11						
12				Qtr2		
13					Apr	82,707
14					May	78,756
15					Jun	67,864
16						
17				Qtr3		
18					Jul	74,399
19					Aug	25,170
20					Sep	63,974
21						
22				Qtr4		
23					Oct	82,864
24					Nov	8,468
25					Dec	40,297
26						

Fig. 949

If you don't like one look, choose the Format Report icon again and select a different look. Fig. 950 shows Table 7.

3	Revenue				Region			
4	Product	Years	Quar	Date	East	Central	West	Grand Total
5	ABC	2004	Qtr1	Jan	120,012	80,003	62,711	262,726
6				Feb	26,693	77,108	67,393	171,194
7				Mar	32,051	47,033	40,047	119,131
8			Qtr2	Apr	82,707	48,376	51,051	182,134
9				May	78,756	52,761	63,126	194,643
10				Jun	67,864	36,902	40,322	145,088
11			Qtr3	Jul	74,399	23,391	57,022	154,812
12				Aug	25,170	79,862	79,420	184,452
13				Sep	63,974	79,144	46,075	189,193
14			Qtr4	Oct	82,864	87,351	26,130	196,345
15				Nov	8,468	46,953	51,102	106,523
16				Dec	40,297	117,875	47,247	205,419
17	ABC Total				703,255	776,759	631,646	2,111,660

Fig. 950

Even with these formats, you can still pivot the report as usual. Here, as shown in Fig. 951, the Product field moves up to the Column area, Region is removed, and Customer is added to the Row area.

**Part
III**

	A	B	C	D	E	F	G	H
1	Drop Page Fields Here							
2								
3	Revenue				Product			
4	Customer	Years	Quar	Date	ABC	DEF	XYZ	Grand Total
5	Ainsworth	2004	Qtr1	Jan	10,445	0	51,053	61,498
6				Feb	0	44,492	20,940	65,432
7				Mar	7,132	34,960	13,404	55,496
8			Qtr2	Apr	29,616	8,776	0	38,392
9				May	25,682	0	29,303	54,985
10				Jun	42,112	0	0	42,112
11			Qtr3	Jul	0	21,555	34,944	56,499
12				Aug	15,544	0	11,064	26,608
13				Sep	19,453	9,672	22,014	51,139
14			Qtr4	Oct	13,397	18,663	0	32,060
15				Nov	12,140	24,356	18,214	54,710
16				Dec	1,861	28,059	0	29,920
17	Ainsworth Total				177,382	190,533	200,936	568,851
18								
19	Air Canada	2004	Qtr1	Mar	5,859	0	0	5,859
20			Qtr2	Apr	0	0	4,948	4,948
21			Qtr3	Aug	0	0	17,856	17,856
22			Qtr4	Oct	0	2,358	0	2,358
23	Air Canada Total				5,859	2,358	22,804	31,021

Fig. 951

Summary: For years, I used pivot tables because of their ability to quickly produce summary reports. In recent versions of Excel, Microsoft has improved the pivot table by offering great looking ways to format the summary reports.

Commands Discussed: PivotTable – Format Report

SPECIFY A NUMBER FORMAT FOR A PIVOTTABLE FIELD

Problem: In a pivot table, a Data field will tend to inherit the numeric formatting assigned to the data in the original dataset. This may not always be correct. At a detail level, it might be appropriate to see invoice amounts in dollars and cents, as shown in Fig. 952. However, at a summary level, you might prefer to show numbers in thousands.

	A	B
1		
2		
3	Sum of Revenue	
4	Product ▼	Total
5	ABC	2111660.00
6	DEF	2163714.00
7	XYZ	2427503.00
8	Grand Total	6702877.00

Fig. 952

Strategy:

- 1) Assign a numeric format to the pivot field. Double-click the Sum of Revenue button to display the PivotTable Field dialog.
- 2) Choose the Number... button, as shown in Fig. 953. Choosing the Number... button will bring up an abbreviated version of the Format Cells dialog with only the Number tab.

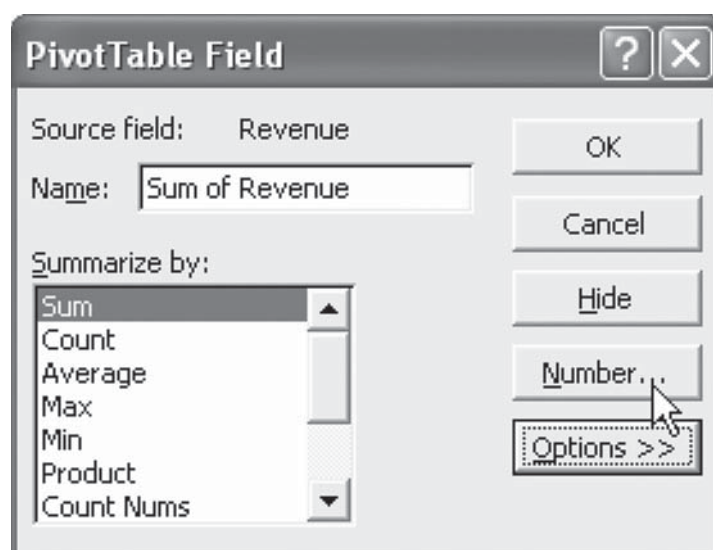


Fig. 953

- 3) Choose an appropriate numeric format and select OK, as shown in Fig. 954.

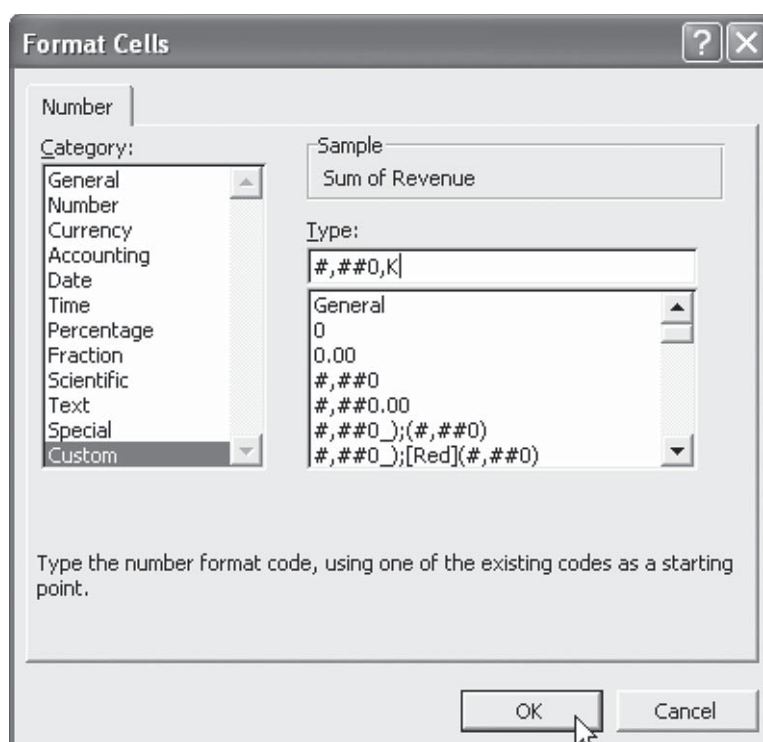
**Part
III**

Fig. 954

Result: As shown in Fig. 955, the Revenue field will now always show the selected format, no matter how the pivot table is changed.

	A	B	C	D	E
1	Drop Page Fields Here				
2					
3	Sum of Revenue	Product ▼			
4	Customer ▼	ABC	DEF	XYZ	Grand Total
5	Ainsworth	177K	191K	201K	569K
6	Air Canada	6K	2K	23K	31K
7	Bell Canada	15K	18K	18K	51K
8	Chevron	26K	21K	7K	54K
9	Compaq	17K	4K	18K	39K
10	Compton Petroleum	4K	13K	14K	31K

Fig. 955

Gotcha: One of the conventions in formatting says that you should include a currency symbol on only the first and total rows of a dataset. There is not a good way to do this with a pivot table. Use the numeric formatting attached to the Product button to assign a currency format. Then, select the first row of cells and assign a new format using Ctrl+1 to display the Format Cells dialog, as shown in Fig. 956.

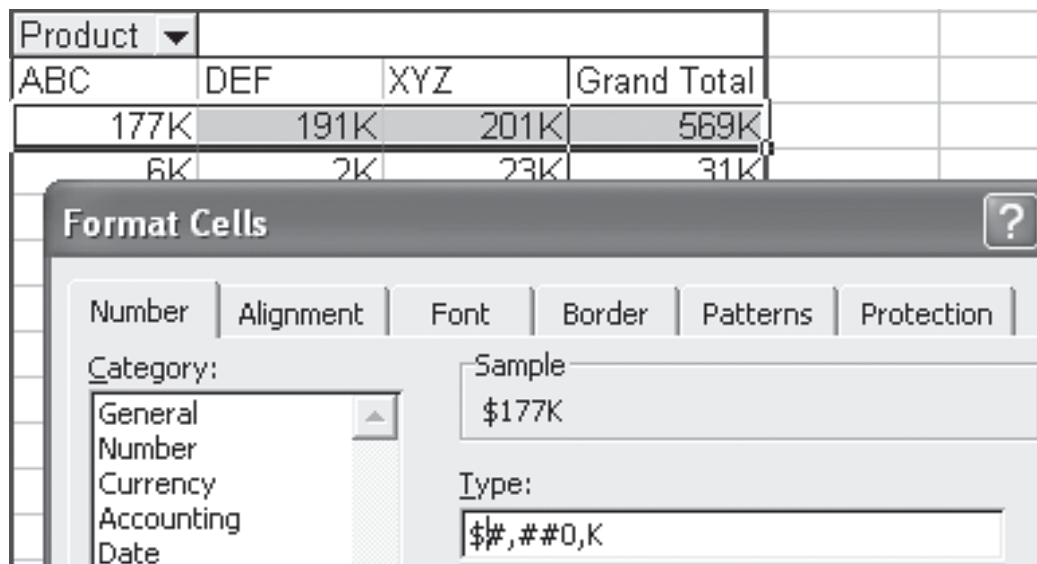


Fig. 956

This will work initially, as shown in Fig. 957.

	A	B	C	D	E
1					
2					
3	Sum of Revenue	Product ▼			
4	Customer ▼	ABC	DEF	XYZ	Grand Total
5	Ainsworth	\$177K	\$191K	\$201K	\$569K
6	Air Canada	6K	2K	23K	31K
7	Bell Canada	15K	18K	18K	51K
8	Chevron	26K	21K	7K	54K

Fig. 957

If you later resequence the pivot table, such as sorting by revenue, the special formatting will move into the pivot table instead of staying with the first row, as shown in Fig. 958.

3	Sum of Revenue	Product ▼			
4	Customer ▼	ABC	DEF	XYZ	Grand Total
5	Wal-Mart	277K	304K	288K	869K
6	General Motors	291K	233K	236K	760K
7	Exxon	294K	185K	225K	704K
8	Ford	192K	186K	245K	623K
9	Molson, Inc	204K	204K	206K	614K
10	Ainsworth	\$177K	\$191K	\$201K	\$569K
11	Sun Life Financial	142K	183K	174K	499K
12	IBM	100K	178K	150K	427K
13	Nortel Networks	114K	133K	144K	391K

Fig. 958

Summary: You can control numeric formatting in a pivot table by using the PivotTable Field dialog.

Commands Discussed: PivotTable – Pivot Field – Number

SUPPRESS TOTALS IN A PIVOT TABLE

Problem: Pivot tables are sometimes used just as an intermediate step in order to reach another result. If you are going to be copying the data to a new workbook that will be used as a new dataset, then all of the totals by month, region, and year will tend to get in the way, as shown in Fig. 959.

	A	B	C	D	
1	Drop Page Fields Here				
2					
3	Sum of Revenue				
4	Date ▼	Region ▼	Product ▼	Total	
5	Jan	East	ABC	120K	
6			DEF	76K	
7			XYZ	77K	
8		East Total			273K
9		Central	ABC	80K	
10			DEF	2K	
11			XYZ	74K	
12		Central Total			156K
13		West	ABC	63K	
14			DEF	16K	
15			XYZ	23K	
16		West Total			101K
17	Jan Total			531K	
18	Feb	East	ABC	27K	
19			DEF	92K	
20			XYZ	80K	

Fig. 959

Strategy: You can turn off subtotals for any field.

- 1) Double-click the Date field. Change the Subtotals setting from Automatic to None, as shown in Fig. 960.

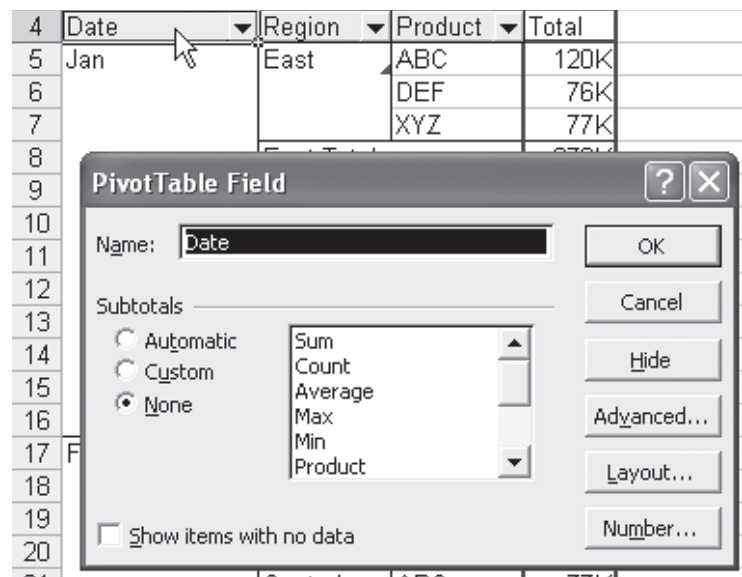


Fig. 960

- 2) Double-click the Region field. Change the Subtotals from Automatic to None, as shown in Fig. 961.

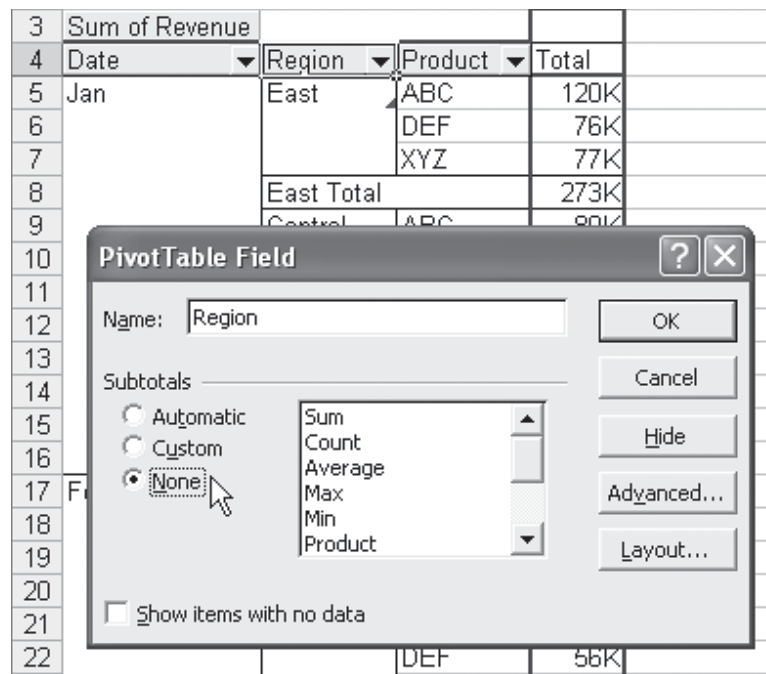
**Part
III**


Fig. 961

Result: As shown in Fig. 962, every row in the pivot table is now a data point. If you copy and paste this table to a new workbook, you will not have to manually delete all the total rows.

	A	B	C	D
1	Drop Page Fields Here			
2				
3	Sum of Revenue			
4	Date ▼	Region ▼	Product ▼	Total
5	Jan	East	ABC	120K
6			DEF	76K
7			XYZ	77K
8		Central	ABC	80K
9			DEF	2K
10			XYZ	74K
11		West	ABC	63K
12			DEF	16K
13			XYZ	23K
14	Feb	East	ABC	27K
15			DEF	92K
16			XYZ	80K
17		Central	ABC	77K
18			DEF	56K
19			XYZ	105K
20		West	ABC	67K

Fig. 962

Summary: When you have more than one Row field, you can remove the automatic subtotals on the outer fields in order to produce a cleaner looking report.

Commands Discussed: Data – PivotTables – Subtotals

ELIMINATE BLANKS IN THE OUTLINE FORMAT OF A PIVOT TABLE

Problem: You have created a pivot table report and want to use this data as a database in another workbook. The pivot table report always uses this outline format. It may look great, but it is not conducive to data analysis. As shown in Fig. 963, you really need the Jan heading to be copied to A6:A13, and the East label to be in B6 and B7.

	A	B	C	D
1	Drop Page Fields Here			
2				
3	Sum of Revenue			
4	Date	Region	Product	Total
5	Jan	East	ABC	120K
6			DEF	76K
7			XYZ	77K
8		Central	ABC	80K
9			DEF	2K
10			XYZ	74K
11		West	ABC	63K
12			DEF	16K
13			XYZ	23K
14	Feb	East	ABC	27K
15			DEF	92K
16			XYZ	80K
17		Central	ABC	77K
18			DEF	56K
19			XYZ	105K
20		West	ABC	67K
21			DEF	26K
22			XYZ	36K

**Part
III**

Fig. 963

Strategy: To fill in the blank cells in the outline of the pivot table, you must make a values-only copy of the pivot table. Insert a new worksheet. Copy A4:D111 from the pivot table. On the new sheet, use Edit – Paste Special – Values in order to convert the pivot table to static values, as shown in Fig. 964.

	A	B	C	D
1	Date	Region	Product	Total
2	Jan	East	ABC	120012
3			DEF	76347
4			XYZ	76843
5		Central	ABC	80003
6			DEF	2257
7			XYZ	73814
8		West	ABC	62711
9			DEF	15809
10			XYZ	22950
11	Feb	East	ABC	26693
12			DEF	92441
13			XYZ	79822

Fig. 964

In this case, you need to fill in the blank cells in columns A and B with the value from the cell above. Follow these steps.

- 1) Select cells A3:B108, as shown in Fig. 965.

	A	B	C
1	Date	Region	Product
2	Jan	East	ABC
3			DEF
4			XYZ
5		Central	ABC
6			DEF
7			XYZ
8		West	ABC
9			DEF

Fig. 965

- 2) Press the F5 key to display the Go To dialog. In the lower left corner, choose the Special... button, as shown in Fig. 966.

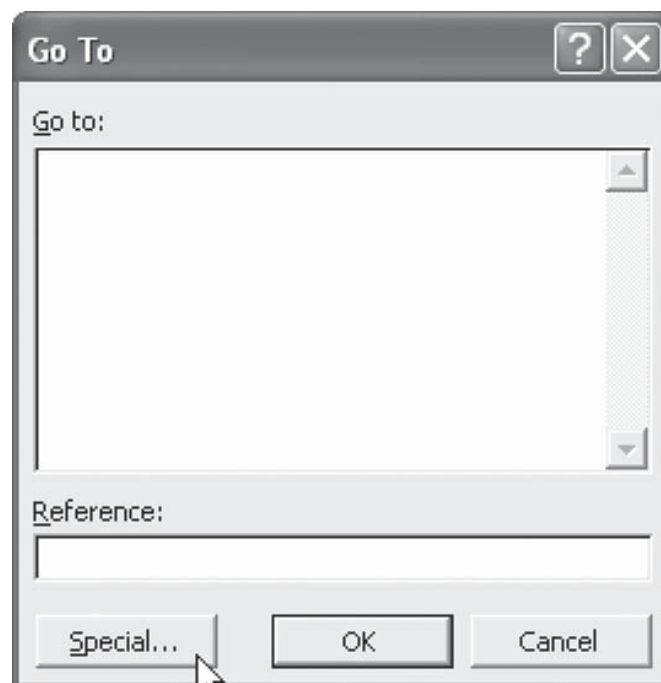


Fig. 966

- 3) On the Go To Special dialog, choose Blanks from the first column and then choose OK, as shown in Fig. 967.

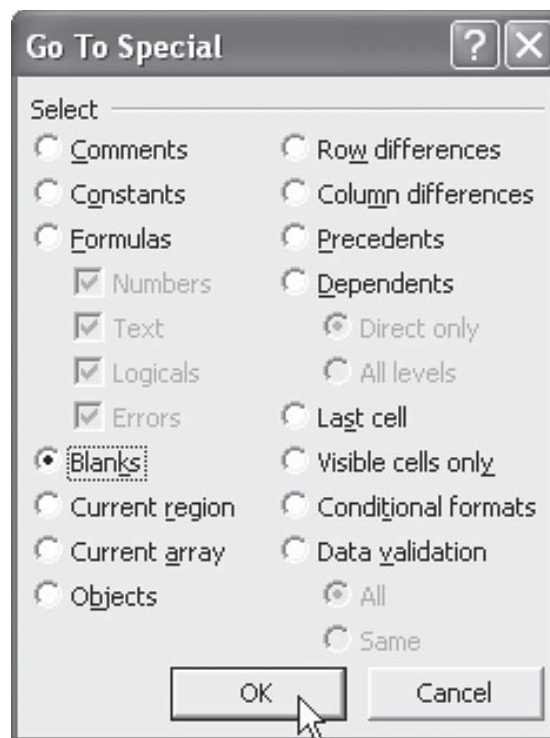


Fig. 967

- 4) This next part is confusing, but it works. Type an Equal sign. Hit the Up Arrow, as shown in Fig. 968.

	A	B	C	D
2	Jan	East	ABC	120012
3		=B2	DEF	76347
4			XYZ	76843
5		Central	ABC	80003
6			DEF	2257
7			XYZ	73814
8		West	ABC	62711
9			DEF	15809
10			XYZ	22950

Fig. 968

- 5) Press Ctrl+Enter, and you get the result shown in Fig. 969.

	A	B	C
2	Jan	East	ABC
3	Jan	East	DEF
4	Jan	East	XYZ
5	Jan	Central	ABC
6	Jan	Central	DEF
7	Jan	Central	XYZ
8	Jan	West	ABC
9	Jan	West	DEF
10	Jan	West	XYZ
11	Feb	East	ABC
12	Feb	East	DEF

Fig. 969

Here is why this works. When you hit the Equal sign, you are telling Excel that you are entering a formula. Hit the Up Arrow, and Excel will make the formula be the cell above the current cell. Hit Ctrl+Enter and Excel will enter a similar (relative) formula in all of the cells of the selection. It really doesn't matter which cell is the active cell, provided you have successfully selected all of the blank cells first.

- 6) The next step is to convert all of those new formulas to values. You are tempted to use Ctrl+C and Edit – Paste Special – Values right now, but the Copy command cannot be used on multiple selections, as shown in Fig. 970.

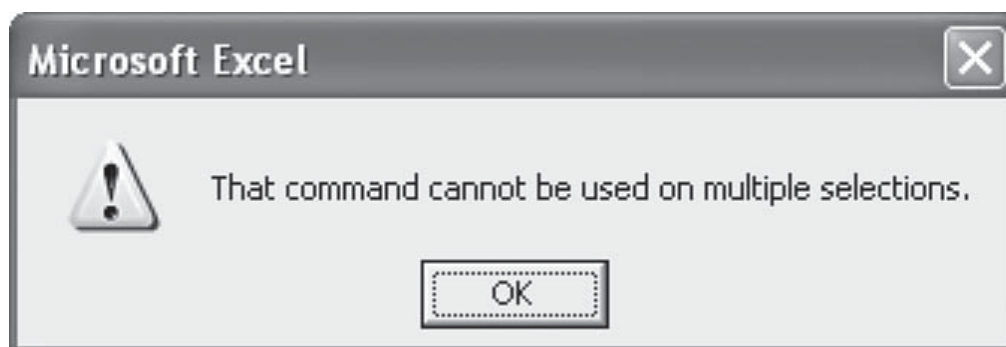


Fig. 970

- 7) Reselect A3:B108. Ctrl+C to copy. Edit – Paste Special Values to convert the formulas to values.

Result: You have a nice solid block of data with value in all of the rows for Region and Date, as shown in Fig. 971. This data is now suitable for sorting and filtering.

	A	B	C	D
1	Date	Region	Product	Total
2	Jan	East	ABC	120012
3	Jan	East	DEF	76347
4	Jan	East	XYZ	76843
5	Jan	Central	ABC	80003
6	Jan	Central	DEF	2257
7	Jan	Central	XYZ	73814
8	Jan	West	ABC	62711
9	Jan	West	DEF	15809
10	Jan	West	XYZ	22950
11	Feb	East	ABC	26693
12	Feb	East	DEF	92441
13	Feb	East	XYZ	79822

Fig. 971

Summary: The steps above seem very convoluted. However, they can easily be mastered and carried out in less than a minute. They are the key to taking the results of a pivot table and creating a useful block of data for further analysis.

Commands Discussed: Edit – Copy; Go To Special – Blanks; Ctrl+Enter

USE A PIVOT TABLE TO COMPARE TWO LISTS

Problem: You have last week's report of forecasted orders. You receive a new forecast report. As shown in Fig. 972, you need to determine which forecasts are new, which forecasts were changed, and which forecasts were deleted.

	A	B	C	D	E	F
1	Forecast Last Week				Forecast This Week	
2						
3	Customer	Forecast			Customer	Forecast
4	Compton Petroleum	32,937			Ainsworth	25,450
5	Exxon	68,200			Bell Canada	32,565
6	Ford	2,629			Chevron	45,240
7	General Motors	54,569			Compaq	45,215
8	Gildan Activewear	44,432			Compton Petrole	32,937
9	HP	55,251			Exxon	68,200
10	IBM	28,910			Ford	2,629
11	Kroger	46,717			General Motors	54,569
12	Lucent	65,881			Gildan Activewe	44,432
13	Molson, Inc	47,733			HP	55,251
14	Nortel Networks	49,459			Kroger	46,717
15	P&G	60,299			Lucent	65,881
16	Shell Canada	47,521			Molson, Inc	47,733
17	Sun Life Financial	21,578			P&G	50,000
18	Verizon	35,367			Shell Canada	60,000
19	Wal-Mart	27,862			Sun Life Financi	21,578
20					Verizon	35,367
21					Wal-Mart	27,862

Fig. 972

Strategy: Copy the two lists into a single list, with a third column to indicate whether the forecast is from this week or last week. Create a pivot table and the new/deleted/changed forecasts will be readily apparent. Follow these steps.

- 1) Add a heading in C3 called Source. Assign the value of "Last Week" in C4:C19, as shown in Fig. 973.

	A	B	C
1	Forecast Last Week		
2			
3	Customer	Forecast	Source
4	Compton Petroleum	32,937	Last Week
5	Exxon	68,200	Last Week
6	Ford	2,629	Last Week
7	General Motors	54,569	Last Week
8	Gildan Activewear	44,432	Last Week
9	HP	55,251	Last Week
10	IBM	28,910	Last Week
11	Kroger	46,717	Last Week
12	Lucent	65,881	Last Week
13	Molson, Inc	47,733	Last Week
14	Nortel Networks	49,459	Last Week
15	P&G	60,299	Last Week
16	Shell Canada	47,521	Last Week
17	Sun Life Financial	21,578	Last Week
18	Verizon	35,367	Last Week
19	Wal-Mart	27,862	Last Week
20			

**Part
III**

Fig. 973

- 2) Copy the data from columns E and F to A20. In C20:C37, enter the value of This Week, as shown in Fig. 974.

	A	B	C
1	Forecast Last Week		
2			
3	Customer	Forecast	Source
9	HP	55,251	Last Week
10	IBM	28,910	Last Week
11	Kroger	46,717	Last Week
12	Lucent	65,881	Last Week
13	Molson, Inc	47,733	Last Week
14	Nortel Networks	49,459	Last Week
15	P&G	60,299	Last Week
16	Shell Canada	47,521	Last Week
17	Sun Life Financial	21,578	Last Week
18	Verizon	35,367	Last Week
19	Wal-Mart	27,862	Last Week
20	Ainsworth	25,450	This Week
21	Bell Canada	32,565	This Week
22	Chevron	45,240	This Week
23	Compaq	45,215	This Week
24	Compton Petroleum	32,937	This Week
25	Exxon	68,200	This Week

Fig. 974

- 3) Create a Pivot Table. Put Customer in the Row area, Source in the Column area, and Forecast in the Data area.
- 4) In the PivotTable Options, turn off Grand Total for Rows. As shown in Fig. 975, you will have a comparison of the two lists.

	A	B	C
1	Drop Page Fields Here		
2			
3	Sum of Forecast	Source ▼	
4	Customer ▼	Last Week	This Week
5	Ainsworth		25450
6	Bell Canada		32565
7	Chevron		45240
8	Compaq		45215
9	Compton Petroleum	32937	32937
10	Exxon	68200	68200
11	Ford	2629	2629
12	General Motors	54569	54569
13	Gildan Activewear	44432	44432
14	HP	55251	55251
15	IBM	28910	
16	Kroger	46717	46717
17	Lucent	65881	65881
18	Molson, Inc	47733	47733
19	Nortel Networks	49459	
20	P&G	60299	50000
21	Shell Canada	47521	60000
22	Sun Life Financial	21578	21578
23	Verizon	35367	35367
24	Wal-Mart	27862	27862
25	Grand Total	689345	761626
26			

Fig. 975

Results: For any cells without an entry in Last Week, the forecast is new. For any forecast without an entry in column C, the forecast was deleted. For any forecast where columns B and C do not match, the forecast was changed.

Part III

Fig. 976

Fig. 977

You have two options in order to enter a regular formula outside of the pivot table.

First option: You can actually type `=D5–C5` as the formula.

Second option: Alternatively, you can add a button to a toolbar to permanently turn off the automatic creation of `GetPivotData` functions. From the menu, select **Tools – Customize**. Choose the **Commands** tab. In the **Category** dropdown, choose **Data**. Scroll all the way to the bottom of the **Commands** list. There is an icon for **Generate GetPivotData**. Drag this icon from the **Customize** dialog and drop it on one of the toolbars, as shown in Fig. 978.

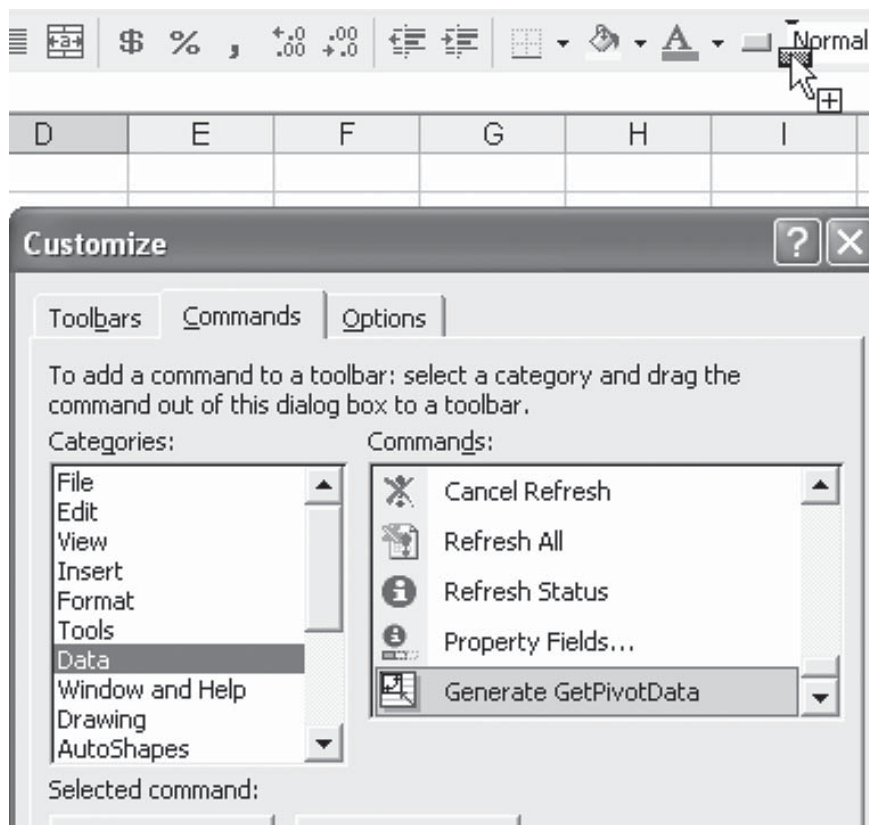


Fig. 978

You can now turn off the creation of `GetPivotData` functions automatically by selecting the item in the toolbar, as shown in Fig. 979.

*Fig. 979*

Summary: In addition to using VLOOKUP or Data Consolidation, you can use pivot tables as a quick way of comparing two or more lists. The trick is to add a new temporary column identifying the source of each record and then to use the Source column as a Column field.

Commands Discussed: Data – PivotTable; Generate GetPivotData