



# Conditional Formatting, Part 2

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**C**onditional formatting is a powerful tool built into Excel that allows you to automatically format cells based on their contents. The article in the November/December 2012 issue of *Billing* introduced the basics of conditional formatting. Now that you are familiar with the Highlight Cells rules and some of the formatting options available, take your Excel skills to the next level by working through these examples. To download a copy of the spreadsheet, look for the download link with the article at [mooresolutionsinc.com/articles.php](http://mooresolutionsinc.com/articles.php). Once you have downloaded the spreadsheet, look for the “Jan Feb 13 Practice” tab for this month’s examples.

## Conflicting Conditional Formatting Rules and Precedence

In all of our basic examples in the introductory article, the conditional formatting rules for each cell did not conflict with each other. It is possible – and sometimes very helpful – to assign multiple conditional formatting rules to the same cell that format that cell in contradictory ways. For example, you can apply a conditional formatting rule to format a cell with over 100 denials in a red font with a pink background. Then, you can apply a second rule to the same cell that formats cells in the top 10 percent of denials using a white font with a black background. If a cell has more than 100 denials *and* is in the top 10 percent of denials, Excel cannot make the font both red and white or the background both pink and black. Instead, it will decide which rule to use which is based on the order of the rules in the Conditional Formatting Rules Manager. Here is how this example works.

On the “Jan Feb 13 Practice” tab of the sample spreadsheet, highlight cells B5 through B26. Click “Conditional Formatting” on the Home tab and choose “Highlight Cells.” Choose “Greater Than,” and format the cells that are greater than 100. The default, “Light Red Fill with Dark Red Text,” formatting option is fine. Your screen should look like Figure 1.

Now, select the same range of cells, B5 through B26. Click “Conditional Formatting” and choose the second rule,

“Top/Bottom Rules.” Choose “Top 10 %...” and leave it at the default of 10%. Choose “Custom Format” from the drop-down list and on the Font tab and change the color to white. Switch to the Fill tab and make the background color black. Click OK and your screen should look like Figure 2. Click OK again to return to the main Excel window.

Now that both the “more than 100 denials” and “top 10 percent” rules are applied to cells B5 through B26, highlight cells B5 through B26 again and click “Conditional Formatting.” This time, choose “Manage Rules....” Your screen should look like Figure 3.

Notice that both rules are shown in Figure 3. Since the top 10% percent rule is on the top of the list, that rule is applied first and cells that are in the top 10 percent *and* are over 100 denials are shown in a white font with black background, as shown in Figure 4. Cells that are greater than 100 but not in the top 10 percent are shown with a red font and a pink background. Highlight the top 10 percent rule and click the down arrow button (to the right of the “Delete Rule” and up arrow buttons). Click apply, and Excel will apply the “Cell Value > 100, red font/pink background” rule first. Your screen should look like Figure 5.

## Data Bars

Conditional Formatting can do much more than change font and background colors. A data bar is a bar chart that fits in a cell. You may find data bars also fit well in a dashboard you design for the practices you support. To follow along with this example, scroll down to row 30 on the “Jan Feb 13 Practice” tab. Notice how, for the month of October, the *New Patients by Location* in cells B33 to B38 has a blue bar chart in each cell showing how the different locations compare to each other. Follow along as we add a data bar to November.

Highlight cells C33 to C38. Then, from the “Conditional Formatting” menu on the Home tab, choose “Data Bars,” then choose the red gradient fill as shown in Figure 6. Your screen should look like Figure 7. Notice the difference between the blue fill in column B and the red fill in column C. The October data bars do not have a border, while the (continued on page 42)



FIGURE 1

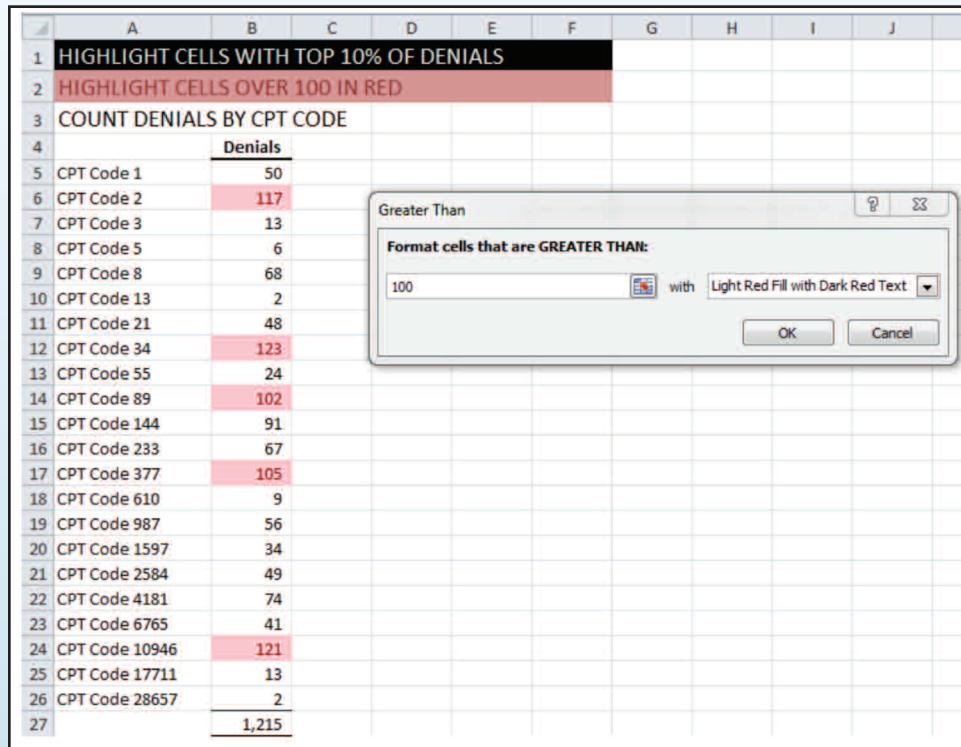


FIGURE 2

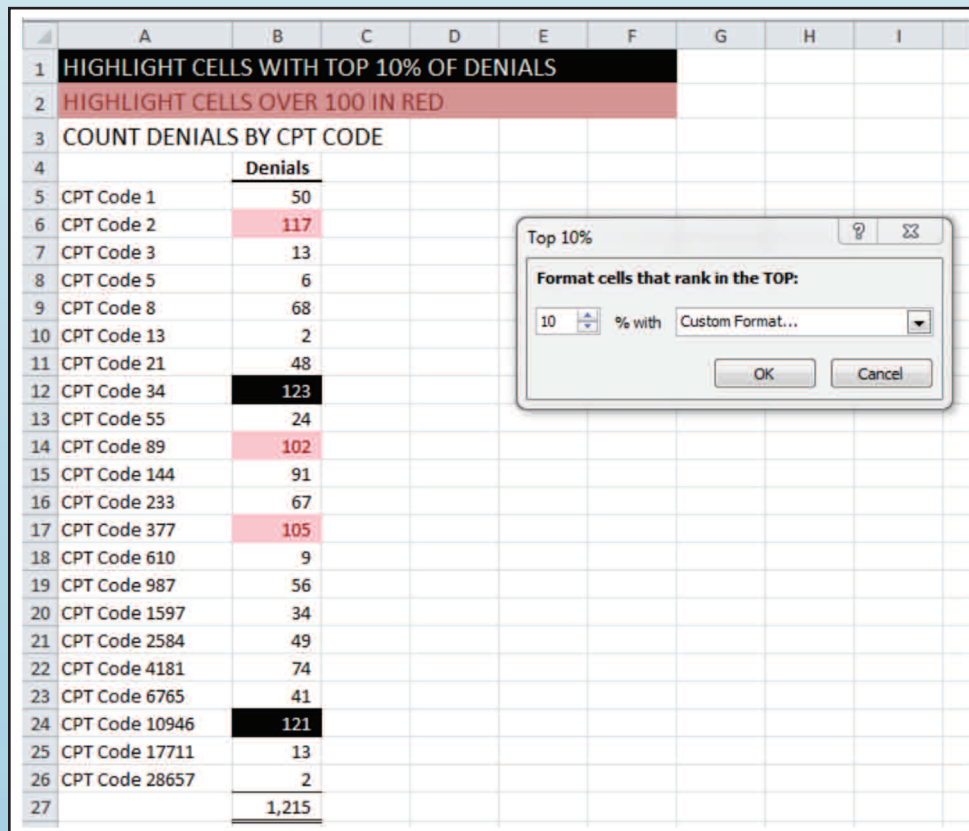


FIGURE 3

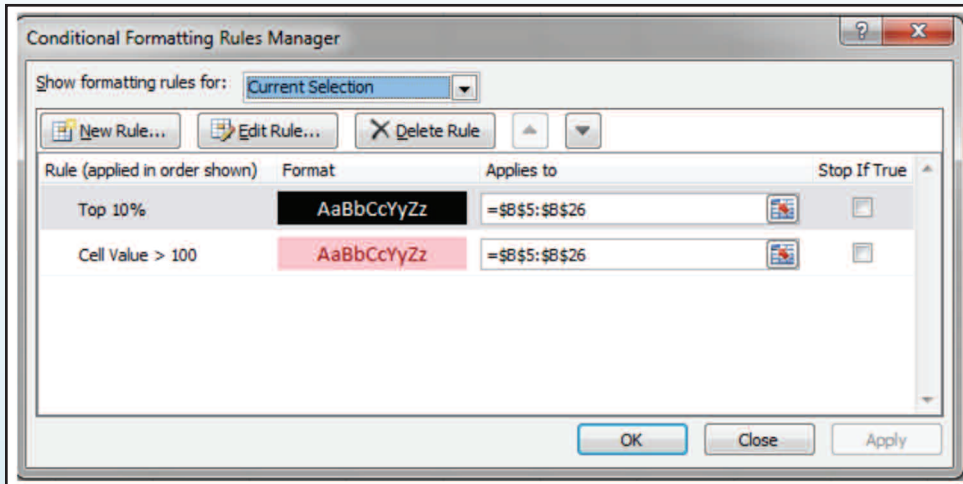


FIGURE 4

	A	B	C	D	E	F
1	HIGHLIGHT CELLS WITH TOP 10% OF DENIALS					
2	HIGHLIGHT CELLS OVER 100 IN RED					
3	COUNT DENIALS BY CPT CODE					
4		Denials				
5	CPT Code 1	50				
6	CPT Code 2	117				
7	CPT Code 3	13				
8	CPT Code 5	6				
9	CPT Code 8	68				
10	CPT Code 13	2				
11	CPT Code 21	48				
12	CPT Code 34	123				
13	CPT Code 55	24				
14	CPT Code 89	102				
15	CPT Code 144	91				
16	CPT Code 233	67				
17	CPT Code 377	105				
18	CPT Code 610	9				
19	CPT Code 987	56				
20	CPT Code 1597	34				
21	CPT Code 2584	49				
22	CPT Code 4181	74				
23	CPT Code 6765	41				
24	CPT Code 10946	121				
25	CPT Code 17711	13				
26	CPT Code 28657	2				
27		1,215				

FIGURE 5

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	HIGHLIGHT CELLS WITH TOP 10% OF DENIALS												
2	HIGHLIGHT CELLS OVER 100 IN RED												
3	COUNT DENIALS BY CPT CODE												
4		Denials											
5	CPT Code 1	50											
6	CPT Code 2	117											
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13	CPT Code 55	24											
14	CPT Code 89	102											
15	CPT Code 144	91											
16	CPT Code 233	67											
17	CPT Code 377	105											
18	CPT Code 610	9											
19	CPT Code 987	56											
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22	CPT Code 4181	74											
23	CPT Code 6765	41											
24	CPT Code 10946	121											
25	CPT Code 17711	13											
26	CPT Code 28657	2											
27		1,215											

FIGURE 6

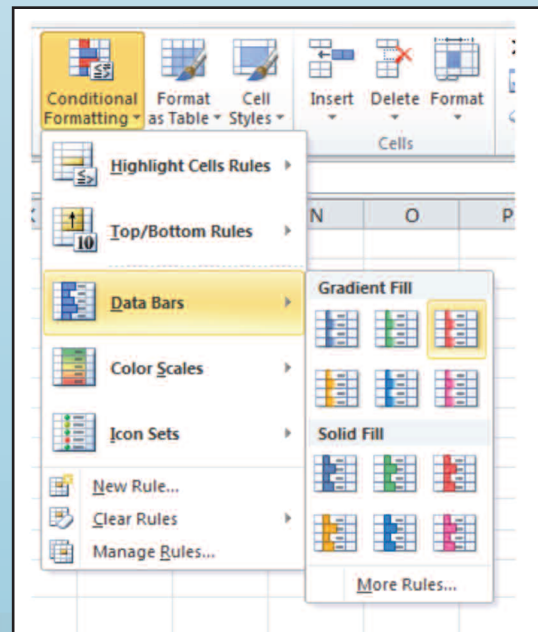




FIGURE 7

30	SEPARATE DATA BAR FOR EACH MONTH				
31	NEW PATIENTS BY LOCATION				
32		Oct	Nov	Dec	Total
33	'Ele'ele	208	271	246	725
34	Po'ipū	297	284	367	948
35	Hanalei	395	288	203	886
36	Līhu'e	209	218	392	819
37	Princeville	393	233	257	883
38	Kekaha	422	174	328	924
39					

FIGURE 8

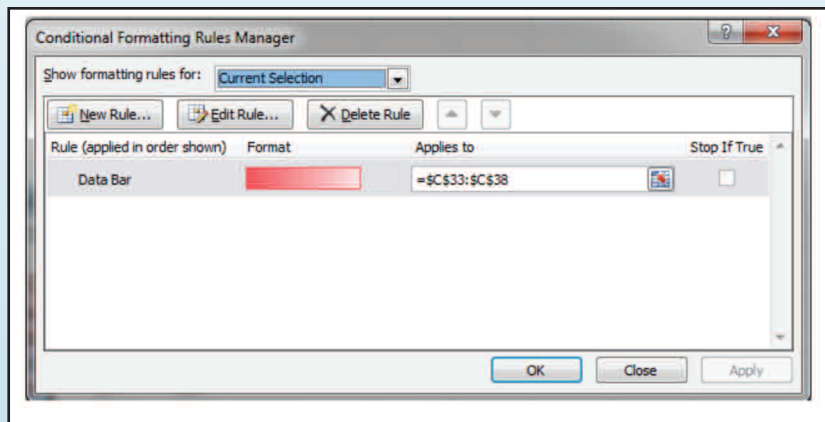
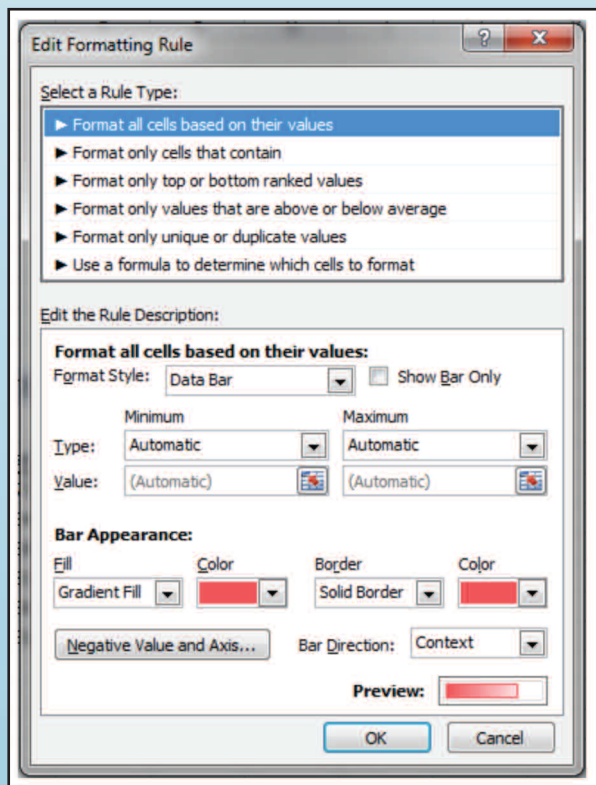


FIGURE 9



November data bars do. You can easily add or remove the borders and customize the data bars by highlighting the cells you want to customize, choosing “Conditional Formatting” from the Home tab, and then “Manage Rules.” In Figure 8, I have selected cells C33 to C38 to customize and remove the border from the data bar. Click “Edit Rule” and your screen should look like Figure 9.

There are several options on this Edit Formatting Rule window. Under the *Format all cells based on their values* section, you can check the “Show Bar Only” box to hide the underlying numbers and just show the data bar. From the “Minimum” and “Maximum” drop-down boxes, you can control how Excel plots the data bar. You can manually enter the minimum and maximum values; allow Excel to choose the minimum and/or maximum values automatically; choose the lowest and highest values; or choose a percent, percentile, or formula. Excel provides plenty of flexibility to help you get just the data bar you need.

In the *Bar Appearance* section, you can choose between a gradient and a solid fill and between no border and a solid border. You can choose any color you would like for both the bar fill and the border color, and the bar direction field will let you start the border at the left or right side of your cell. The

“Negative Value and Axis” button allows you to change the color of the bar when the number in the cell is negative and add an axis to your data bar to help distinguish negative numbers. You will notice some conditional formatting features, especially those dealing with negative numbers, are new in Excel 2010. For our example, just change the border option to no border and click OK twice.

Now that you are familiar with data bars, add them to the *December* and *Total* columns. Select the columns one at a time so that the *December* data bars are only comparing the values to new patients in December. If you conditionally format both the *December* and *Total* columns at the same time, they will both be included in the same data bar calculation. Excel will find the minimum value in the *December* column, the maximum value in the *Total* column, and all of the *December* data bars will appear low compared to the three-month data bars in the *Total* column.

There are many great ways to use conditional formatting in dashboards. In the next issue of *Billing*, we will discover other ways to use conditional formatting in a medical practice setting. To learn more about conditional formatting, watch the free videos found in the playlist for conditional formatting, Excel Videos 44–60, at [mooresolutionsinc.com/videos.php](http://mooresolutionsinc.com/videos.php). ■