

# EXCEL



By Bill Jelen

## Using a Slicer to Zoom In

An IMA® member recently asked if a slicer could be used to cause a Bar of Pie chart to zoom in automatically. For example, when you choose West from the slicer in Figure 1, the West region would move from the pie chart to the bar chart and be split into the component states.

Normally, you would expect this to be impossible. As soon as you deselected Central from the slicer, it should get hidden in the chart. But there's a technique that uses a disconnected slicer that's tied to a smaller copy of the data instead of the original data.

### Build a Disconnected Slicer

Off to the right of your data and pivot table, build a list containing Region and State. One quick way is to copy the Region and State columns from the original data and then use the Remove Duplicates command on the Data tab. From that small list of values, create a new pivot table with Region and State in the row area and nothing in the value area. Add a slicer for Region. Now, when you select from the slicer, the states and regions that appear in the pivot table will be associated with the selections in the

slicer. (See Figure 2.)

### Build a Chart Source Range

Figure 3 shows a small range that is the source of the pie chart. Column O contains the states and regions. Column P contains =GETPIVOTDATA or =SUMIFS formulas to pull the totals from your pivot table or data set. Column Q contains a formula that looks at the discon-

nected pivot table in column X (shown in Figure 2) and indicates if this row should be in the chart or not. For the states, use =IF(ISNA(MATCH(O2,X:0)),0,1). For the regions, reverse the final 0,1 to be 1,0. This way, when a region is selected, its associated states—and the unselected regions—will all have a 1 and, thus, appear in the chart.

Column R in Figure 3 is hard-coded to indicate where the data point should be

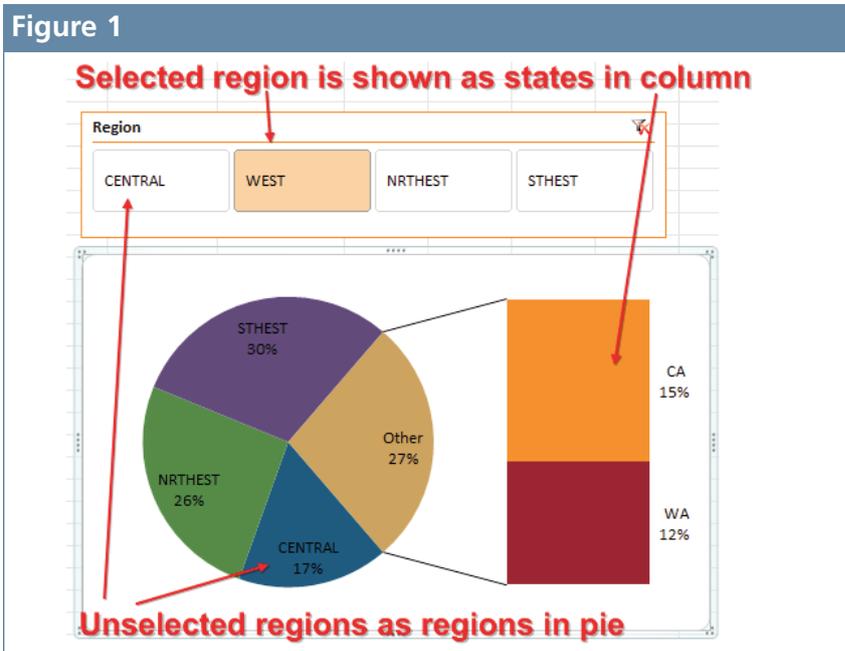


Figure 2

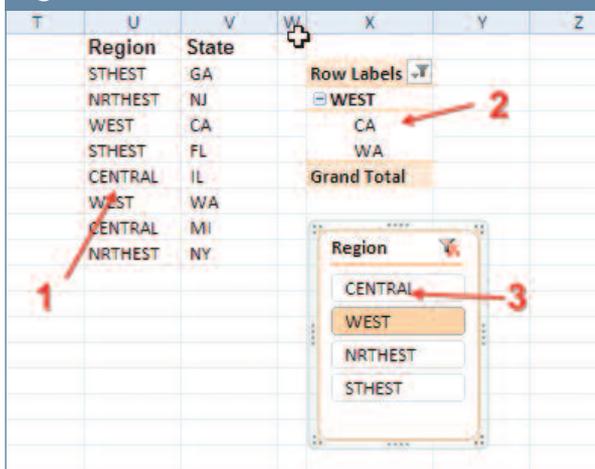


Figure 3

=IF(ISNA(MATCH(O2,X:X,0)),0,1)				
N	O	P	Q	R
Area	Qty	Show?	Where?	
IL	32406	0	1	
MI	20718	0	1	
CA	49240	1	1	
WA	37375	1	1	
NJ	23713	0	1	
NY	57655	0	1	
FL	59881	0	1	
GA	35391	0	1	
CENTRAL	53124	1	0	
WEST	86615	0	0	
NRTHEST	81368	1	0	
STHEST	95272	1	0	

plotted. The states have a value of 1 to indicate they should go in the secondary pie. The regions get a 0 to indicate that they belong in the main pie.

## Customize the Bar of Pie Chart

Select O1:P12. On the Insert tab, select Chart, Pie, Bar of Pie Chart. Delete the legend and title. Add data labels showing category name and value. Format Series 1 and change the Secondary Plot Size from 75% to 120%.

Your chart will initially show all states and all regions. Apply a Filter to column Q and choose to show only the rows that have a 1. This will hide the selected Region and show the states associated with that region.

## Moving Data Points between the Pie and Bar

Normally, Excel wants to move the last N points from the pie to the bar. This works great if your data is sorted. But it isn't reliable with states and regions, as you might have a large state that has

more sales than a region. There is a tedious process where you can choose Custom placement of the data points and, after selecting each point, choose if it belongs in the pie or the bar. This is too tedious to do manually after each slicer selection, but it can be done quickly by an event handler macro.

## Adding an Event Handler Macro

Follow these steps to add a macro that runs every time you choose from the slicer.

- ◆ Use Save As and save the workbook with an XLSM extension to allow macros.
- ◆ Right-click the worksheet tab in Excel and choose View Code.
- ◆ In the code pane, go to the top-left dropdown and select the only choice, Worksheet.
- ◆ In the top-right dropdown, choose PivotTableUpdate. This gets you an event handler macro that will run every time any pivot table on the sheet is updated. The beginning of

the macro is added automatically: Private Sub Worksheet\_PivotTable Update.... After that line, insert the following code:

```
ActiveSheet.AutoFilter.ApplyFilter
Ctr = 1
For Each Cell In Range("R2:R13") _
.SpecialCells(xlCellTypeVisible)
ActiveSheet.ChartObjects(1).Chart _
.SeriesCollection(1).Points(Ctr) _
.SecondaryPlot = Cell.Value
Ctr = Ctr + 1
Next Cell
```

When you choose from the slicer, the formulas in the worksheet will recalculate the 1s and 0s in the Show column. The .ApplyFilter line in the macro is akin to clicking the Apply Filter icon on the Data tab. The remaining lines loop through the visible rows and decide if the data point belongs in the pie or bar. **SF**

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