# EXCEL ‹‹‹‹‹‹

By Bill Jelen

# Reporting a Count of Records by Geography

A reader sends in this month's question. "I have a database in Excel 2007 of thousands of customers. I need to find how many customers are in each country and in each U.S. state and Canadian province. I discovered the COUNTIF function, but with 100+ geographies, it would take forever to do the COUNTIF for each country and state."

The COUNTIF function is a powerful function. If your countries are stored in G2:G10000, a formula such as =COUNTIF(G2:G10000,"Australia") will tell you how many records are in Australia. As the reader points out, however, the formula method requires a unique list of countries and a different formula for each country.

A pivot table can solve this problem in six clicks!

Before you start the pivot table, though, let's make sure that your data is set up correctly.

◆ Make sure that there's a one-row heading above each column. If you happen to have two or three rows of headings, temporarily insert a blank row above the last heading row so that you have a single heading directly above your data. Make sure that the labels in your heading are all unique.

◆ Delete any completely blank columns. QuickBooks is notorious for putting the tiny blank columns between each column. Delete those.

◆ If you have any completely blank rows, either sort them to the bottom or select the entire data set before starting.

To create a list of countries with a count of how many records are in each country, follow these six mouse clicks.

**Click #1:** Select one cell in your customer data set. It should be a single cell, not two cells.

**Click #2:** In the Excel 2007 ribbon, click on the Insert ribbon tab.

**Click #3:** On the left side of the ribbon, click the PivotTable icon. Excel will show you how big it thinks your data set is. It will report something like A3:J11000 or something like that. It also offers to put the pivot table on a new worksheet, which is great. That way you can delete it later after you have the answer.

**Click #4:** Click OK to create a blank pivot table. You will see a PivotTable Field List on the right side of the screen. There will be a list of fields at the top of the field list. These are all the fields in your original data. Assuming Country is near the end of the list, you might have to scroll down to find it in the list.

**Click #5:** Choose the checkbox next to Country. This will do two things:

◆ You will have a unique list of countries in column A.

◆ The "Country" heading will appear in the Column Labels box at the bottom of the PivotTable Field List on the right side of the screen. There are four boxes at the bottom of the Field List: Row Labels, Column Labels, Report Filter, and Values. Because the Country field contains text values, choosing the checkmark causes the Country field to default to the Row Labels area.

**Click #6:** This is the tricky step. You need to add a text field to the Values area of the pivot table. You want to choose a field that contains mostly text and has very few blanks, such as Company Name or Customer Name. Important—don't choose the checkmark next to this field. Excel will put it in the wrong place. We want Excel to do something counterintuitive. Instead of clicking the checkbox, click on the Customer Name in the Field List and drag it to the

Values box. The Values box
actually has a Greek letter
sigma ($\sum$) next to it. When
you drop a text field into the
Values box, column B of the
report responds by showing
you the count of each country.
(See Figure 1.)

That's it. Six clicks to get a
count by country. Copy the
report (perhaps cells A3:B50).
Create a new workbook with
Ctrl+N. In the new workbook,
open the Paste dropdown on
the Home ribbon and choose
Paste Values. This will copy the
report results without bringing
along the memory-resident
pivot cache.

Later, if you have to count
states for domestic records,
uncheck the Country field and
check the State field instead.
To limit the State report to only
the United States or Canada,
drag the Country Field to the
Report Filter box. You can now
use the dropdown in cell B1 to
limit the report to one specific
country, as in Figure 2.

**Figure 1**



**Figure 2**
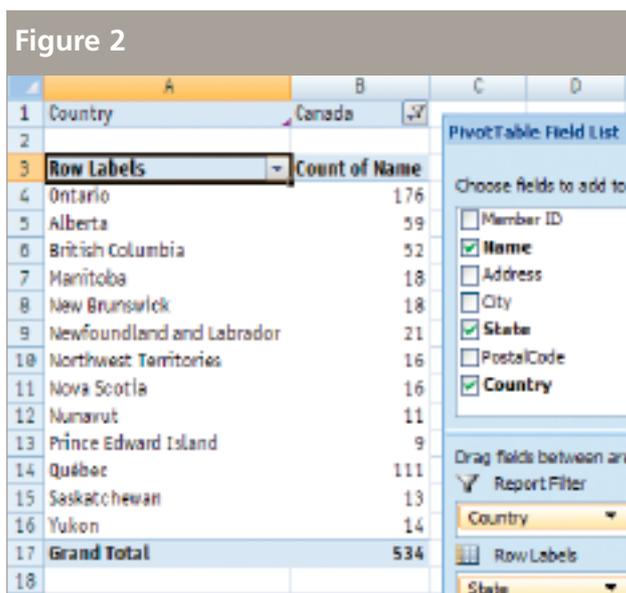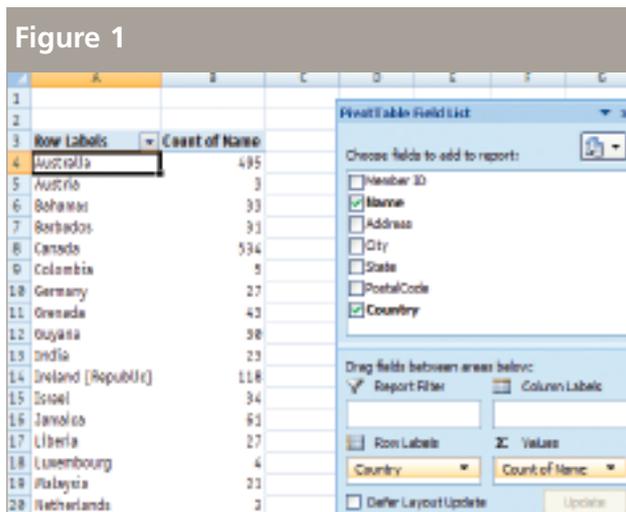


## Cleaning Up

Having a live pivot table in
the workbook makes the file
twice as big. You're probably
pretty happy with the answer
pasted into the new work-
book and don't really need
the live pivot table in the
original workbook. After
you've copied the pivot table
results as values to the new
workbook, delete the pivot
table worksheet. This will
delete the pivot table cache
from memory, and your file
size will go back to normal.

While ideal for getting a
count of countries or states,
this method isn't limited to
that. Anytime you need a
count for each value appearing
in a column within your data,
the six clicks are all you'll
need. **SF**

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