CREATING A Company Report Card

by Cory Eckert

Trying to figure out why some jobs go well and others don't can be a nightmare. Often there are so many factors involved, it's impossible to get a clear read. Even answering simple questions can be tough: Are additions or kitchens more profitable? Why does one lead carpenter seem to produce more than another? Why do some jobs always run over on labor while others don't?

With all the day-to-day responsibilities of running a company, who has time to track the kind of data needed to answer these questions? And so it is that many builders rarely know for sure why certain things happen.

Weekly Reports

A few years back, our company needed a system for tracking and reporting man-hours worked on individual jobs. At the time, we were using a report we would pull from QuickBooks after all the weekly timecards had been entered into the computer. We would present this report at our weekly production meeting, but it always seemed to raise more questions about each job than it answered. For one thing, the report told us only how many hours we had spent thus far on a given job; how much time was left in the bid — and whether that was enough to finish the job — remained a mystery.

Pivot tables allow you to analyze your numbers any way you want. Here's how to build one

To get a more in-depth look at our jobs, we created an Excel spreadsheet that compared the total man-hours budgeted with a revised estimate of how many hours we thought the work would take. We got the revised estimate by adding the hours spent to date (taken from our weekly QuickBooks report) to the number of hours we thought it would take to complete the remaining work. This gave us a clear idea as to whether we would hit the labor budget.

Each week I would add any new jobs and change orders that had been sold, update the actual hours used, and revise the projected hours needed to finish. Within a few minutes of entering the data, I had an updated report I could take to the meeting.

Over time, using pivot tables has enabled us to make intelligent choices based on real data, not gut feelings.

The spreadsheet was a big improvement, and it worked for a while. But because we were selling roughly a job a week, my database was getting very large and unwieldy. The problem was that every job remained on the list — even the ones we had completed, which we kept for the valuable historical information they contained.

A New Approach

One day, Randy Foster, one of our company's owners, mentioned that I could create pivot tables in Excel that would allow me to manipulate the data any way I wanted. Randy wasn't sure how to set them up, but if pivot tables would make my report easier to read, I was determined to find out how to make them. My guide was a book called *Sams Teach Yourself Microsoft Office Excel in 24 Hours* ($22.50, written by Trudi Reisner, www.samspublishing.com). After about two hours of working my way through this book, I could create a pivot table in less than a minute.

Right away, I added a new column — Status — to my database, and started using four words to describe each job: PRE for jobs sold but not yet under construction, OPEN for jobs under construction, DONE for jobs recently completed, and COM for jobs that had been completely closed out. I was now able to get a report that showed only open jobs with the particular data I wanted. I could also have Excel do the math from the pivot table and tell me how the company as a whole was doing on actual hours vs. hours bid. (This one bit of data allowed us to fine-tune our bids to the point where, companywide, we stay consistently within 2 percent of total hours bid.)

And, once a week, I could now get a report that was accurate and truly useful. We were able to spot jobs that were heading south and make proactive adjustments to head off trouble.

A Better Spreadsheet

A few months later, I developed a new spreadsheet designed to take full advantage of pivot tables. I wanted to be able to compare as much information about completed jobs as possible. I started by titling each column of the spreadsheet according to the information it contained: Job Type, Salesman, Lead Carpenter, Job Name, Total Man-Hours to Complete, Gross Revenue, Cost of Goods Sold, and Gross Profit. With the pivot table, I could now compare different kinds of job types. We soon discovered, for example, that we were repeatedly underbidding bathrooms. Why this was happening wasn't immediately clear, but we were still able to add a percentage to each bathroom, which has increased the overall profitability of this job category.

We also can compare lead carpenters, to see which ones produce the highest overall gross profit — or, more important, if any consistently produce a low profit margin. With this ability to look at real facts, we can spot our problems and work on them. In the case of a lead carpenter whose jobs may be lagging in profitability, for instance, we can work with him to discover why the problem exists and how to overcome it. We've also found that showing crew members actual data really motivates them to improve.

We've found it too time-consuming to go backward and try to create databases from past job history. Now, when we sense a need to mine new data in some area of our business, we start entering it from that day forward to build the database. Over time, this has enabled us to make intelligent choices based on real data, not gut feelings.

In short, pivot tables have become a truly important tool for our company. They provide us with one of the best ways we know to distinguish what *is* real from what we only *think* is real.

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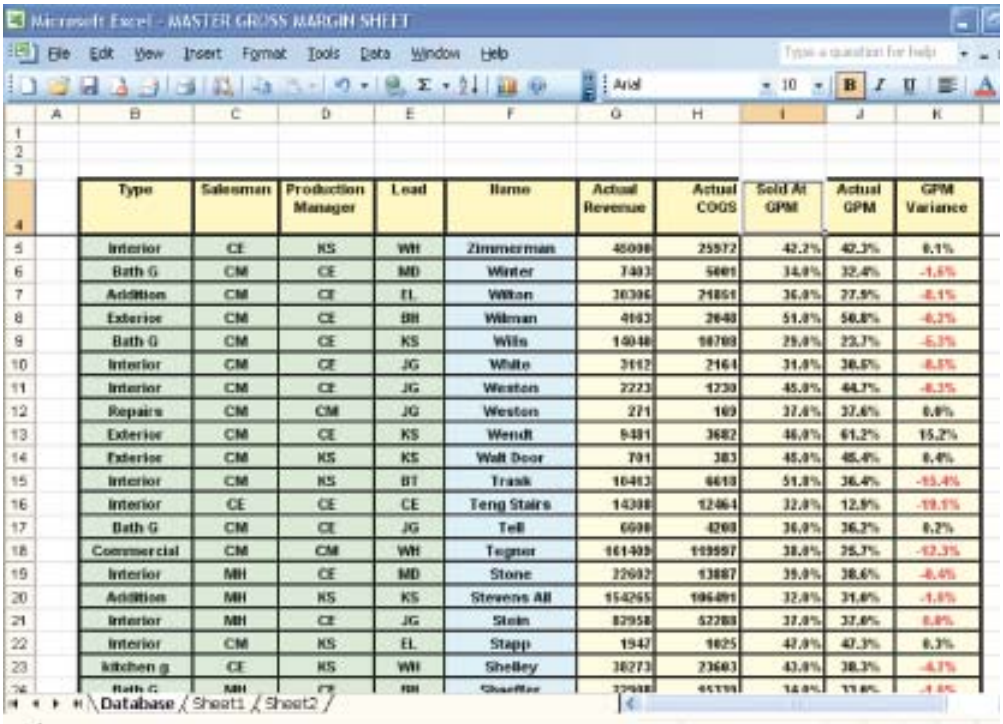
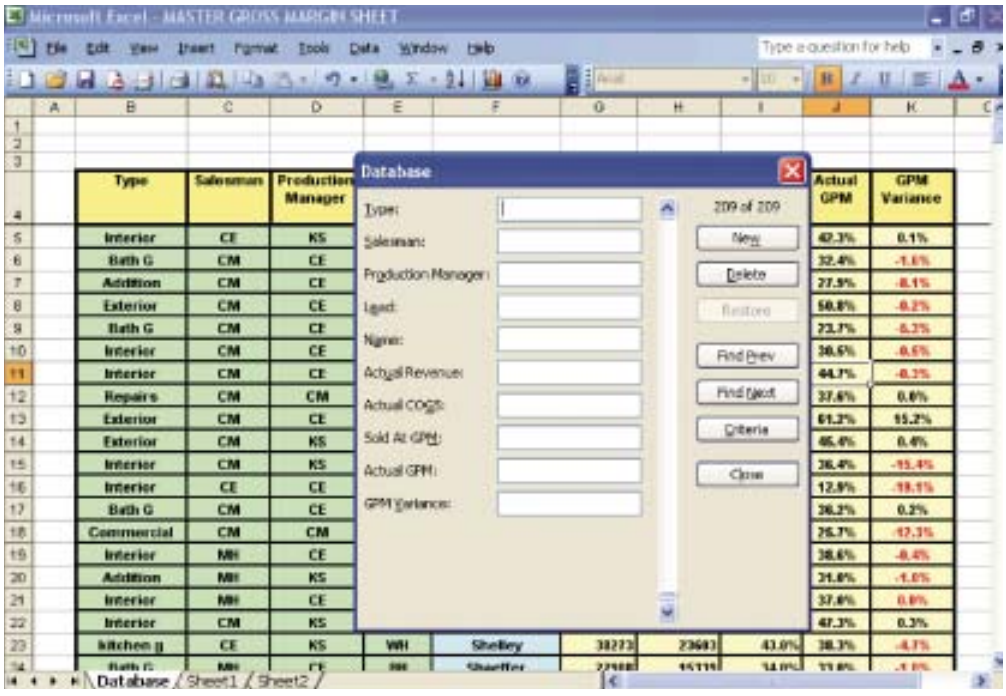
How To Create a Pivot Table



Step 1

The most important part of creating a pivot table is to get as much relevant information as possible into your database. Give some thought to what you would like to analyze. In the example shown here, which is the database we use to examine gross profit margin, we added as many fields as we thought we would want reports on. Keep in mind that you can always insert more columns and increase the size of the database.

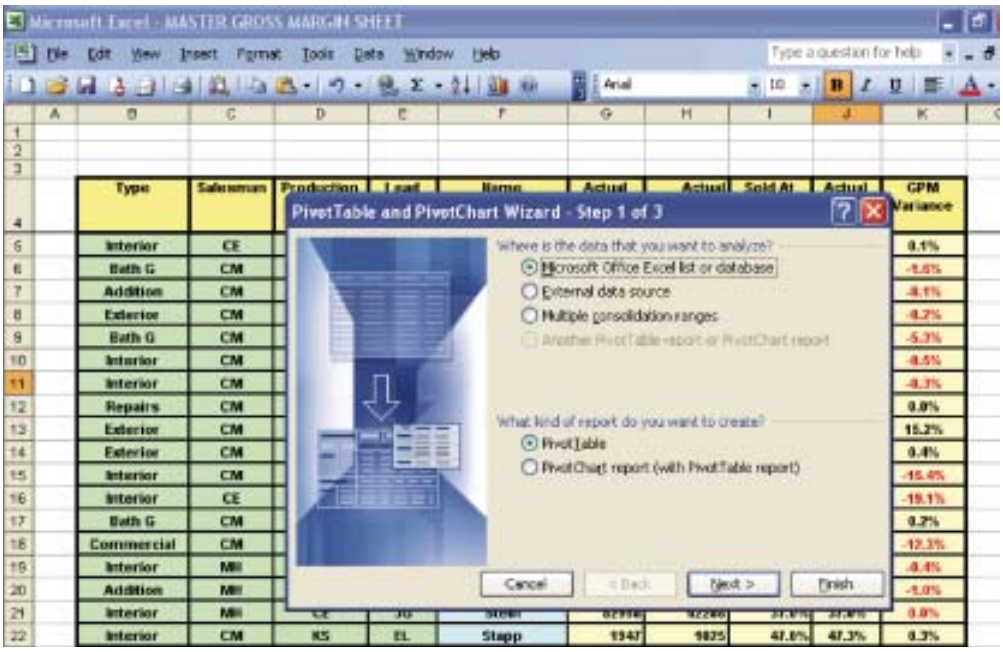


Step 2

Now you are ready to input data. You have two options: One is to simply start filling in the cells one at a time. The other is to highlight the first cell of the title row, click on Data at the top of the toolbar, then click on Form. A window will appear; click New and you can input your data, one entry at a time.

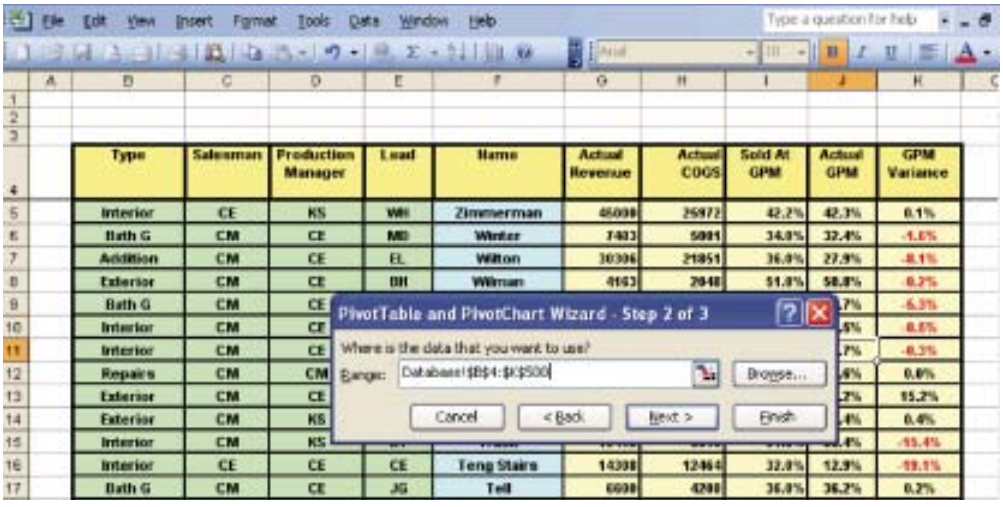
Step 3

Creating the pivot table is easy. Highlight your entire database, even the area that has no information yet. This way, when new data is entered, the pivot table will read it. Next, click Data on the toolbar, then Pivot Table and Pivot Chart Report. A window will appear. Select both Microsoft Office Excel list or database and Pivot Table, then click Next.



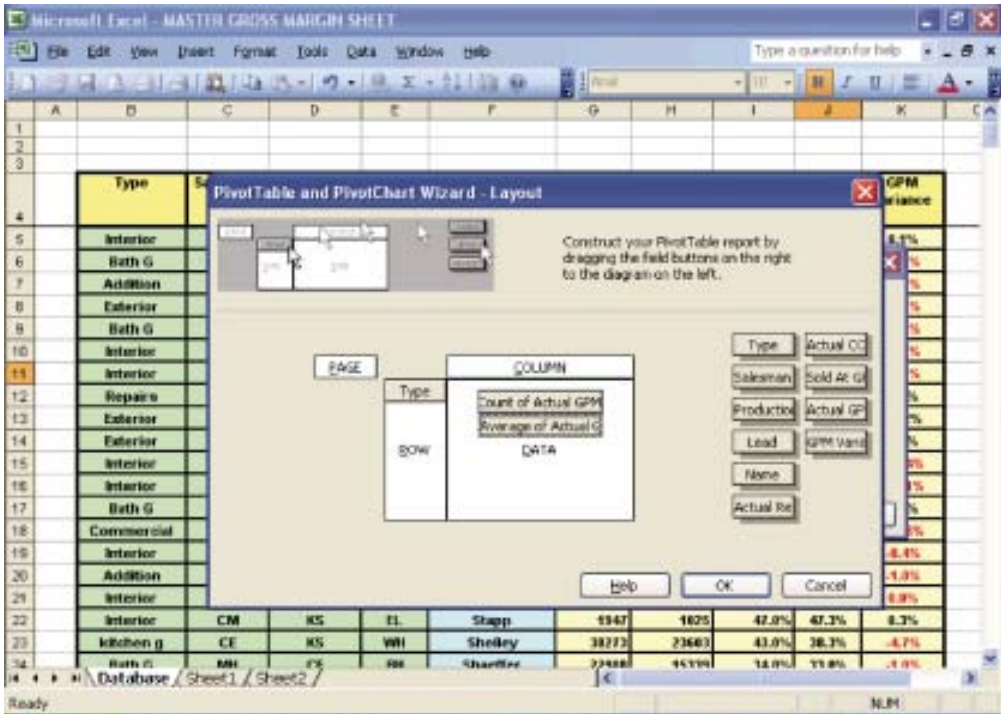
Step 4

The next screen asks where you want the data to come from. Because you've already highlighted the entire database, Excel will fill in the range for you. This area is known as an array. Click Next.



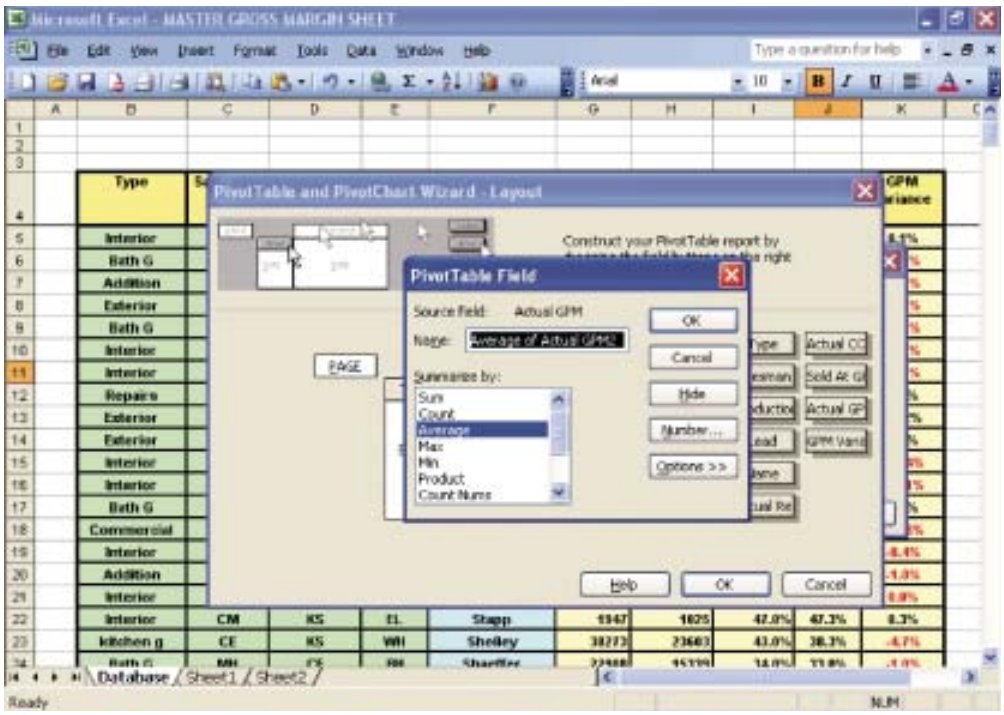
Step 5

This screen gives you an option for placement of your pivot table. I usually select Existing worksheet, then click on the tab at the bottom labeled Sheet 2, and select a cell that I want the pivot table to start in. This gives me a worksheet that is separate from the database.



Step 6

While in that same box, click the Layout button. With the screen that pops up, you can determine what information the pivot table will display. Simply drag the boxes from the right and place them where you want them. In this example, I have chosen to view the gross profit margin (GPM) of our jobs by Type. I also want to know how many jobs of each type we did.

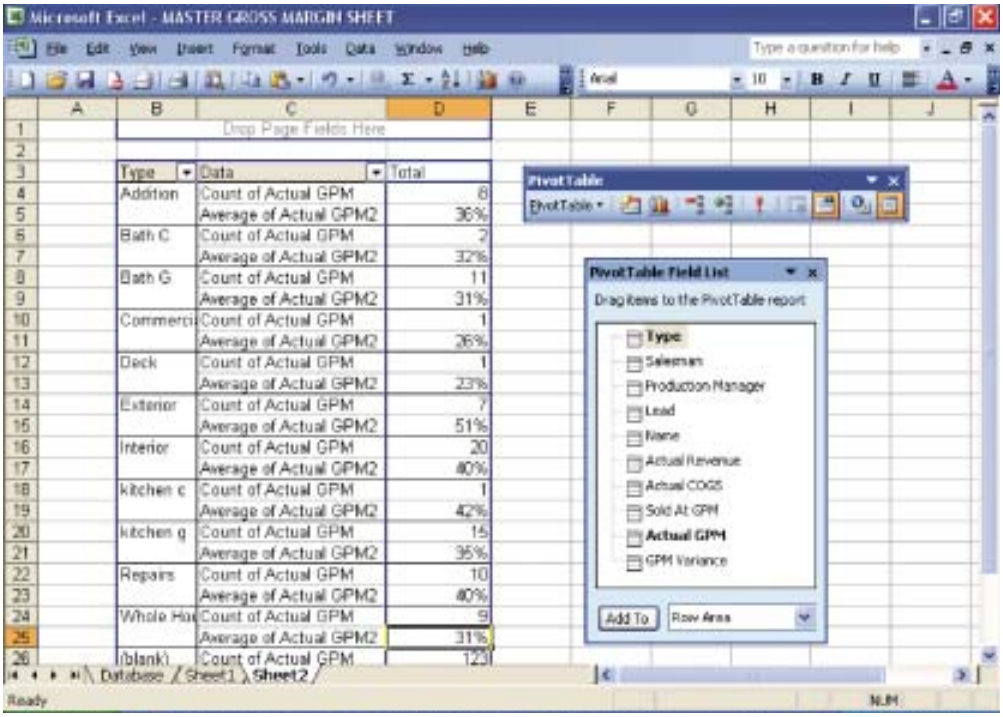


Step 7

Notice that my boxes for Actual GPM are labeled "Count of" and "Average of." This gives me the total count of jobs that fit the criteria and the average GPM of all jobs in each type. I set this up previously by simply dragging Actual GPM into the data area twice, then double-clicking on one of them. This brought up a format box for that item, and I selected Average. Also, after clicking the Number button, I selected to display Percentage with no decimal places.

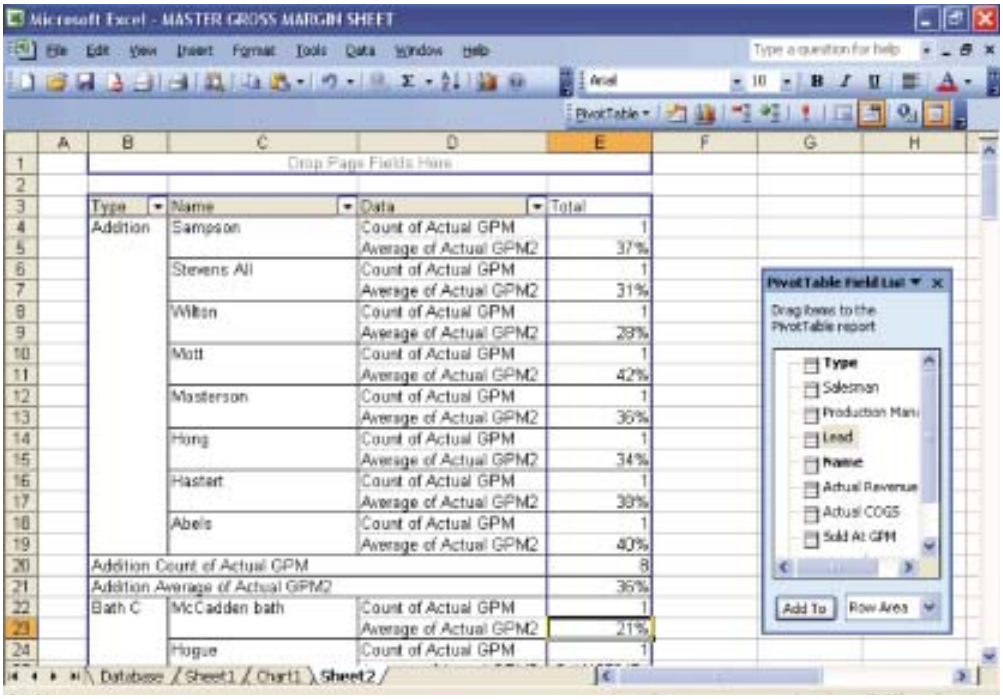
Step 8

Clicking OK brings you back to the Layout Wizard; click OK again, then Finish, and you can see the pivot table, which shows average GPM by job type.



Step 9

For a more detailed look, I can add the name of each job under the type by simply dragging the Name box from the field list at the right and putting it under the word Type. Now I can see how we did on each specific job.



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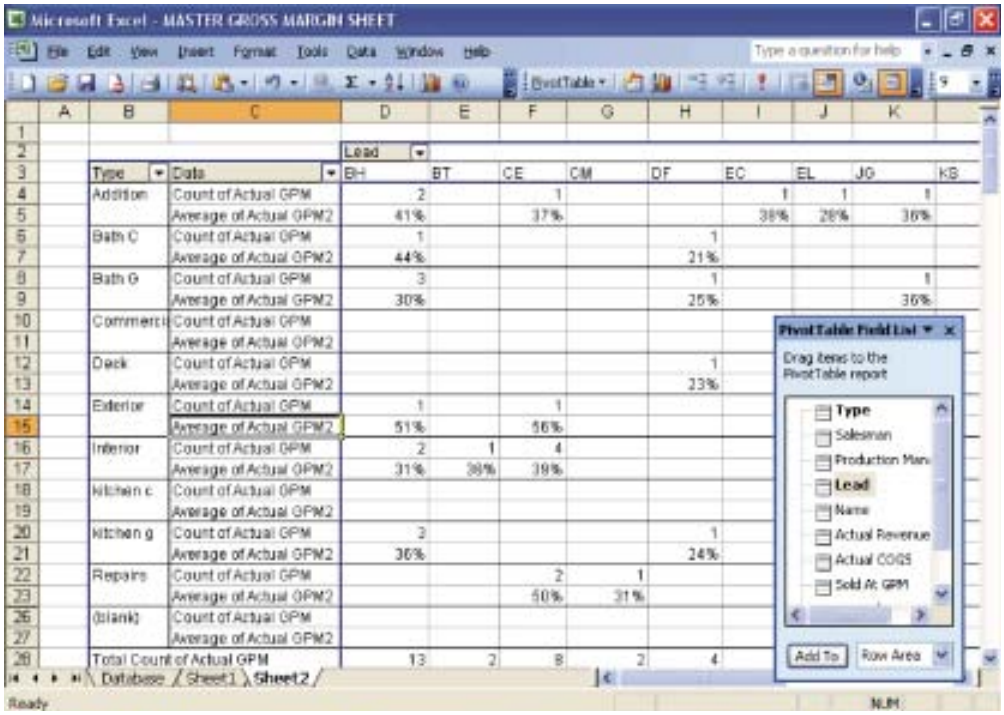
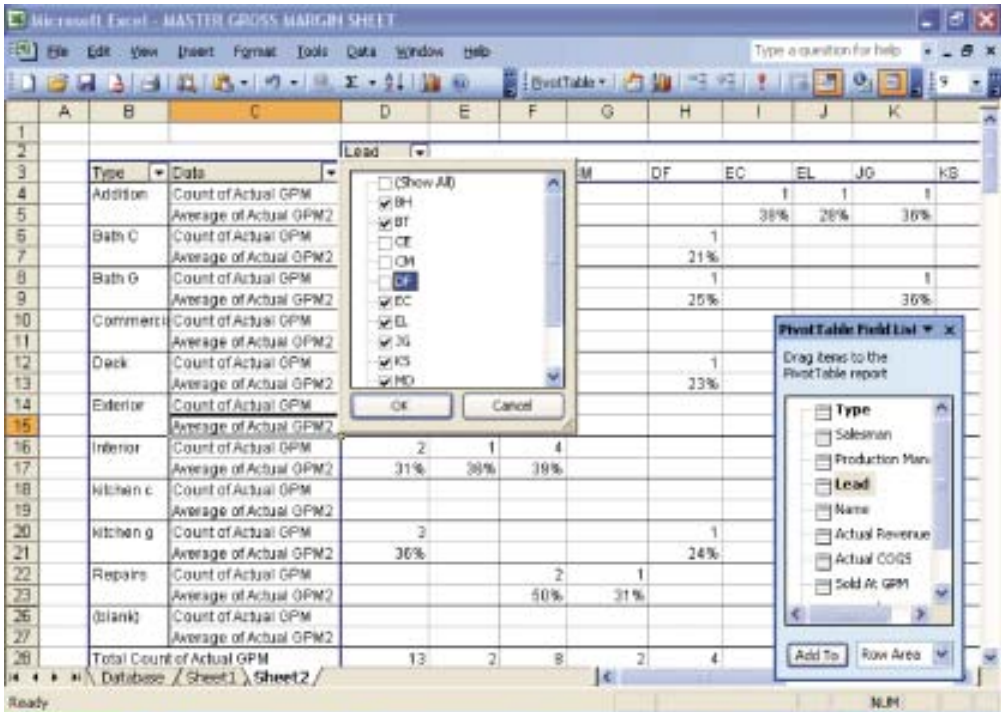
Step 10

Let's change it again, to compare lead carpenters with each other and by job type. Right-click anywhere within the pivot table and select Pivot Table Wizard, then Layout. You are now back where you started, in the original Layout box. Move Name out from under Type and drag Lead over, putting it in the column spot. Click OK, then Finish. Now I can compare leads by job type and with one another.



Step 11

Because our database contains several years' worth of information, there are some lead carpenters in it who no longer work for us. If I want to compare only our current leads, I simply click on the arrow next to the word Lead at the top. This pops up a list of all the leads; I can unclick the initials I don't want, click OK, and the pivot table refreshes itself with only our current leads.



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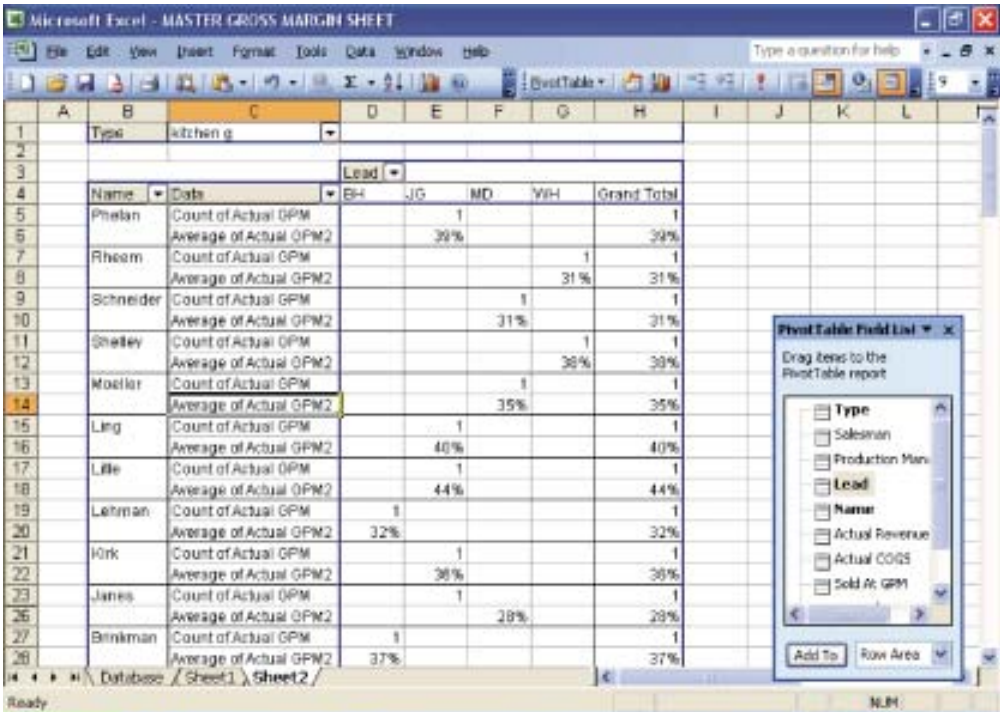
Step 12

Let's look at one more way to sort data. Right-click in the table, select Wizard, then Layout. Move Name back under Type, then move Type to the Page box in the upper-left corner. Click OK and Finish. In the Type pull-down menu, check only Kitchens. Now you are comparing kitchen jobs by lead. At the bottom is the total number of kitchens each lead has completed and his or her average GPM.



Step 13

Whenever you add data to your database, you need to refresh your pivot table. To do this, highlight any cell within the table, right-click, select Refresh, and the information will be added.