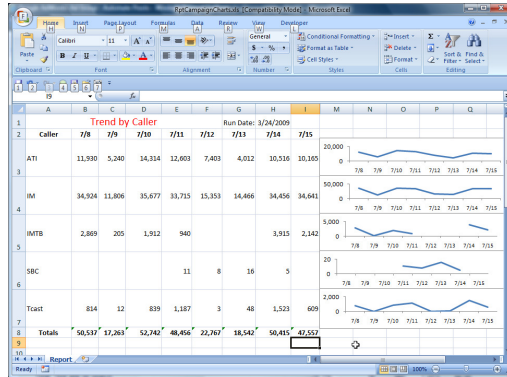


## Lesson #5: How to mass-produce Excel charts

### Problem:

You need charts to help you and your audience see trends and relationships in an Excel spreadsheet's data. However, there is too much data to show in a single chart. So, you need to create many separate charts for the report.



In addition, the size of the data varies with each report run, so some charts need to be added or deleted each time the data changes.

Creating a single chart is tough enough. Creating multiple charts can be a terrible chore, because it takes a lot of effort to create each chart, and to set their data ranges properly. We know staff members who would spend several hours each month preparing a report with a chart showing key indicators for each project manager.

### Solution:

You can do this manually with plain Excel, by following a systematic approach. The keys to this approach are:

1. Make the overall worksheet look the way you want it to, without the charts. The work listed in [Lesson 3](#) still has to be done, regardless of the number of charts the report will have. This may still constitute the bulk of your work.
2. Make space for the charts. If the charts will be stacked vertically, make sure they are as tall as the data rows whose data they will represent. If the charts will be arranged horizontally, make sure they are as wide as the columns whose data they will represent.
3. Use the first chart as a “model” for all the others. Set the chart type, category (xvalues) range, colors, fonts, and axis formats the way you would want them to, for all the other charts.
4. Select the data range that will serve as the “name” of each series of the chart.
5. Select the data range that will serve as the series values for the chart.

6. When that first chart is done, copy that first chart to the next row or column to be charted.
7. Repeat steps 2 through 6 for every chart.

Alternatively, you can use Xcelential Pro together with Excel. As we saw in previous lessons, Xcelential Pro automates the process of getting pivot-table results into a regular Excel worksheet, while updating a chart in the worksheet.

What we will see in this lesson is that you can have Xcelential Pro generate multiple charts in a single Excel report worksheet. This will not require any additional steps by you. You only need to select a report template that specifies that you want multiple charts in the report.

Unless you specify a limit, Xcelential Pro will generate one chart for each unique value of the key fields. In addition, the template can specify the maximum number of charts that can be placed on the worksheet. It can also specify the maximum number of series allowed in a single chart. If those limits are exceeded, the excess data will not be shown on the charts.

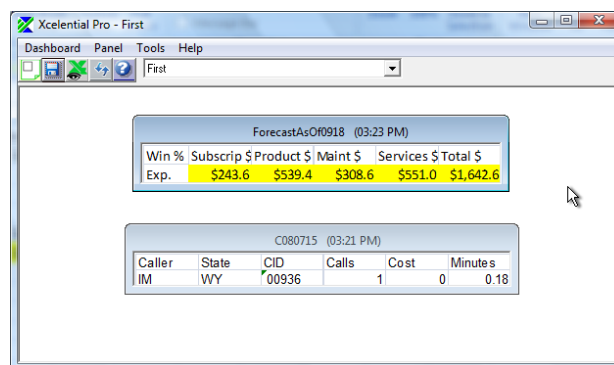
### Lesson:

This lesson will focus on how to use an Xcelential template designed for multiple charts. Check the website for more information on how to create your own templates or how to change the templates.

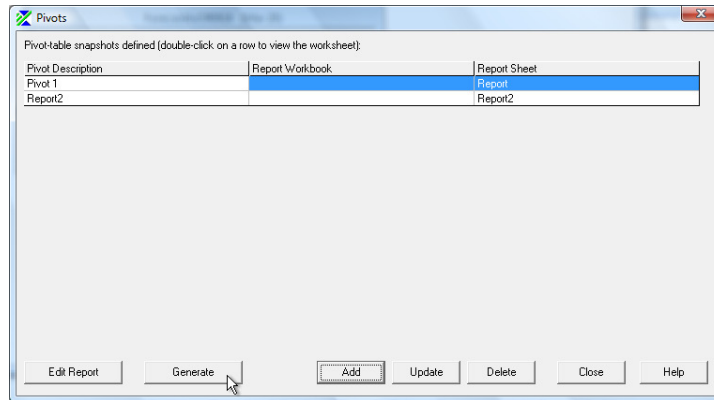
To minimize the time required to go through the lesson, we assume that you completed the previous lesson. If you have not yet done so, please [click here to download and follow it](#).

Let's begin from the end of Lesson 4. These are the steps you need to perform, in order to create a new report with multiple charts in a new Excel report worksheet.

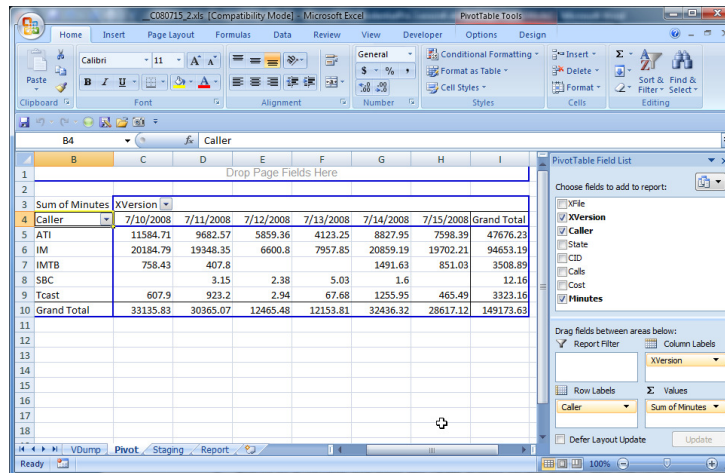
1. Start Xcelential. If you finished Lesson 3 or Lesson 4, you will see a dashboard that looks like this:



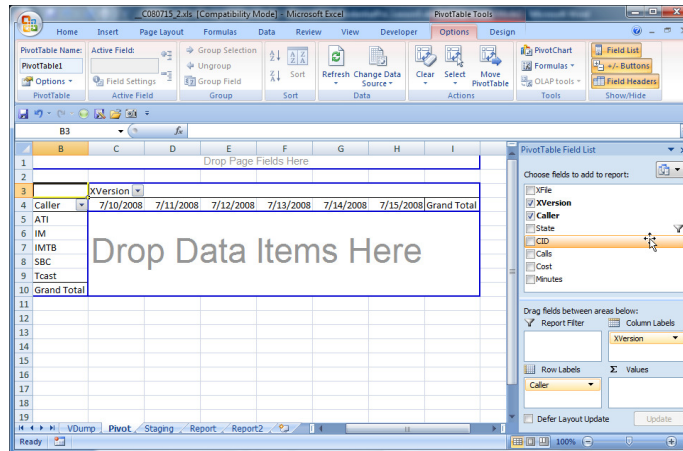
2. Right-click on the panel with the Campaigns data (the lower panel in the illustration, above example), and select the "Edit Pivots" option. If you have completed Lesson 4, this screen will appear:



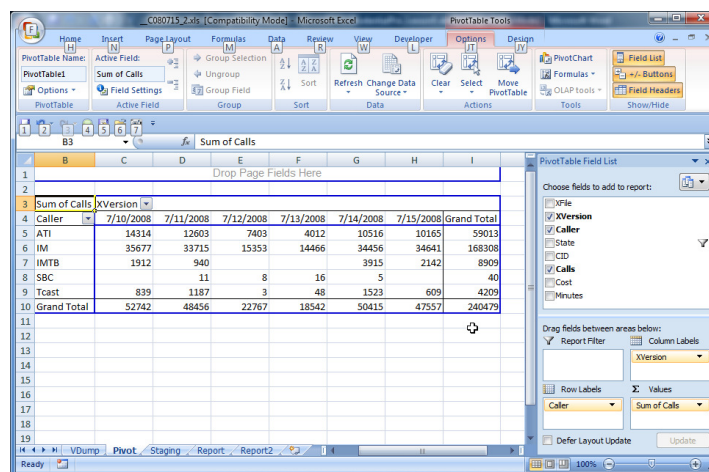
- Double-click on the first row of the grid that appears in the “Pivots” dialog. This will bring up the Excel workbook with the pivot table showing, like this:



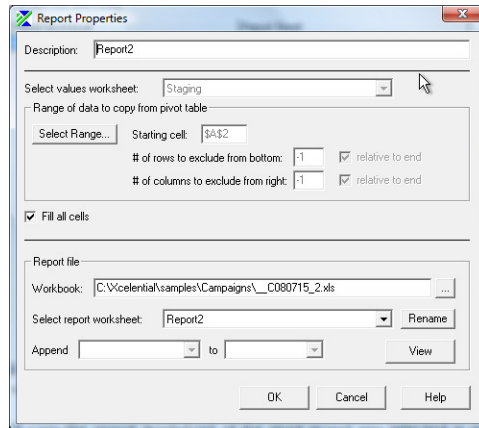
- We don’t actually have to create a new pivot table view, just to mass-produce some charts. But, it would be a boring repetition of data if we didn’t. So why don’t we have some fun with the pivot table? If the list of fields (on the right, in the image above) is not showing, click anywhere inside the pivot table to bring up the list. Let’s play with the pivot table a bit. Drag the cell in the left-hand corner of the pivot table containing the field named “Sum of Minutes” to the field list. That will leave the pivot table looking like this:



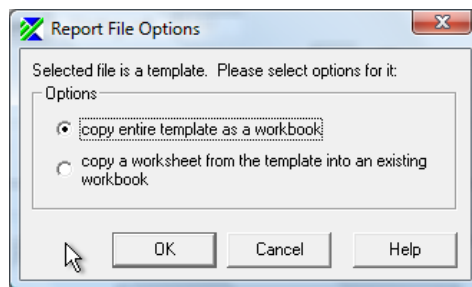
- Now, select the field named “Calls” from the pivot field list (the list on the right side of the image). Drag it to the cell that the “Sum of Minutes” field occupied. The effect is to change the data, so that the pivot table shows the number of calls made, rather than the number of minutes. Aren’t pivot tables fun to play with? The worksheet will now look like this:



- You can do even more with the pivot table in Excel. But that was not the point of the lesson, so let’s **save the workbook**, and continue with Xcelential.
- Return to Xcelential and press the “Add” button on the “Pivots” dialog, which is still open. This will cause Xcelential to “memorize” the pivot table’s settings. It will then ask you whether you want it to create a default report for the new pivot-table view. For this lesson, click “No”.
- The “report properties” dialog will appear (see below). Change the Description (at the top of the form) to “Charts”, so it describes what we are building.

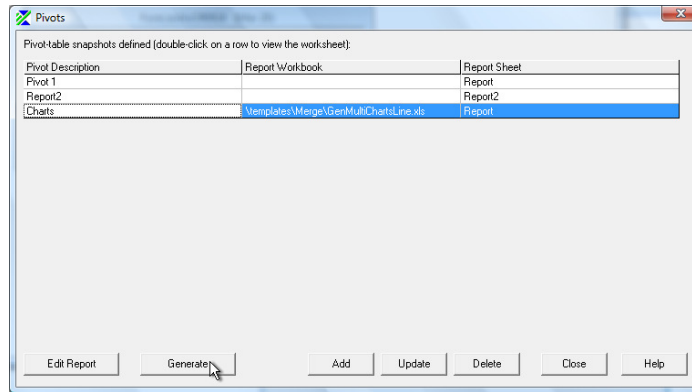


9. Click on the button with the “...” label beside the textbox labeled “Workbook.” This will bring up a standard Windows “File | Open” dialog. Navigate to the folder “Xcelential\templates\merge.” Select the file named “RptMultiChartsLine.xlt”. Press “Open”.
10. This will bring a form that looks like this:

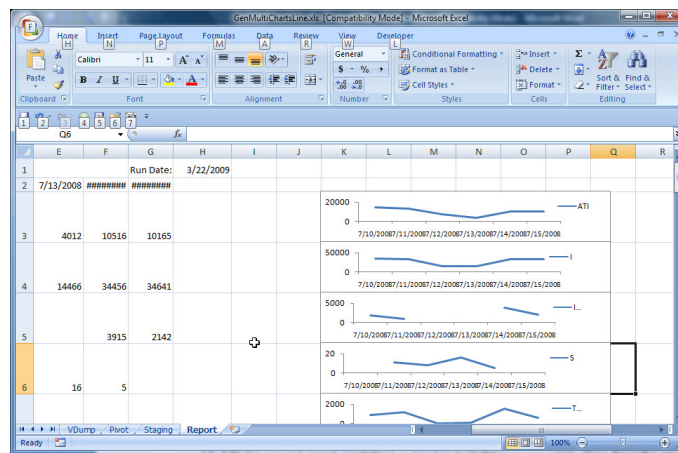


For now, just click ok. In future lessons, we will see how to use the other option.

11. This will bring up the “Save File As” dialog box, allowing you to specify where you want to place the output file, and also allows you to give it a unique name. By default, you are shown the folder where the original spreadsheet came from. Give the report file a name like “RptCampaignCharts.xls”. Press “Save”.
12. Click on the pull-down list in the box labeled “Select Report Worksheet”. Select the worksheet named “report”. Then, press “OK”.
13. We will be back in the “Pivots” dialog that opened in Step #3. However, this time, we see 3 rows of reports listed. That confirms that we added a second report. Now, let’s see the result of our work. Press the button labeled “generate.” Notice that as Xcelential generates the reports, you will see the progress bar announce that it is generating multiple charts – one for each caller.



14. Xcelential generated 3 reports. The first 2 reports will be in the analysis workbook, as they were before. The third one is in the file you created in step 7, whose name and path are showing in the Pivots dialog. That workbook has a sheet that looks something like this:



15. A line chart has been generated for each row of data. The charts and the report layout itself may not look great. You can use Excel to edit it, keeping in mind that Xcelential will follow the settings of the top chart, only. So, focus any changes to the charts (chart type, legend, colors, formats, etc.) on just the top chart. Make any other changes to the report layout. Then **Save the workbook**. You can even close the workbook.

16. Go back to Xcelential, where the “Pivots” form is still open. Press “Generate”. Xcelential will regenerate the reports. Open the “Charts” spreadsheet. You will see that all the charts now have all the changes you made to the top chart.

You can also get new data to try out the reports. The process is the same, regardless of the number of reports and charts that have been defined for Xcelential to generate:

1. Start Xcelential and go to the dashboard where the panel from the spreadsheets with source data is defined..
2. Right-click on the panel, and select “Versions”.
3. Select a set of files from the Versions form. Check the “include hidden data” checkbox, if applicable. Then press “merge”.

4. In the next form, click "OK".

**Result/Conclusion:**

Xcelential Pro automates the process of generating multiple custom-formatted reports from one set of spreadsheet data files. Each report will include the data from a pivot table view that Xcelential Pro memorizes.

Note that Xcelential Pro does this, on top of the features we saw in the previous lessons. We can sum up what Xcelential Pro does, based on the first 5 lessons:

1. It creates an analysis spreadsheet by copying the template you selected.
2. It opens all the source spreadsheet files you selected from a list it presents to you.
3. It locates the data you want consolidated in each file.
4. It copies the collected data to the file it created.
5. It creates the pivot table, and starts an initial analysis.
6. It uses an Excel worksheet you designate as a template for the desired output. The output worksheets may be located in separate Excel files.
7. It moves the data from the pivot table to the templated Excel worksheet, while preserving the integrity of the design elements, formulas, and charts of the target worksheet, even if the number of rows and columns has changed.
8. If the template specifies multiple charts, Xcelential will generate as many charts as required.
9. It repeats steps 5 through 8 for each additional view of the data that it "memorized" pivot-table settings for.
10. It generates all defined reports in each run.

On a final note, you can also use the following outputs of Xcelential, in addition to the report worksheet:

1. Use the worksheet with the consolidated data (for example, to upload the data to a database).
2. Use the pivot table in the analysis workbook it created.

Was this lesson helpful? Feel free to enter comments and suggestions in our forum (<http://www.excelential.com/bb/viewtopic.php?f=7&t=379>)