3 Steps to Creating an Interactive Excel Dashboard
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Executive Summary

This guide illustrates the differences between flat, dynamic and interactive reporting, and shows the steps needed to create an interactive dashboard using Excel. This instruction can be applied to any dataset created in Excel. The screenshots shown are a dataset from the SDA Seattle Chapter practice management sessions’ database. It is appropriate for any dataset from an accounting database, inventory, or human resources database.

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Section 1: Flat Reports

Here is a screenshot from an old report generated by the SDA chapter, detailing the programs they held and the continuing education credits they offered. Someone in the chapter created an MS Word table to compile that year's information. The chapter published the report in hard copy format.

This is considered flat reporting. It is often the type of reports that accounting software packages create. And, if the best way to get your information across is on paper, or electronic PDF, there's nothing wrong with it. The chapter had been using this format for a number of years; it worked for them. If you wanted to take a deeper dive into that flat paper report, however, you’d have to do manual calculations. For example, say you needed to know:

- How many programs were offered during that timeframe? Nine (9), or
- How many finance programs were offered two (2), or
- How many continuing education credits were offered during that timeframe? (13.75 hours)

When the Chapter needed to track and report on other data associated with each of its educational programs, the flat reporting was not as helpful as it could be.
Section 2: Transition to Dynamic Data then to Interactive Reports with Excel

Once the chapter began tracking and reporting on other data associated with its business practice educational events, like the event format and CEUs by category, flat reporting no longer filled the need. The board, in this example, or any executive committee, wants visuals to show and summarize what they are tracking currently and these needs often change.

As you see in the screenshot below, in addition to program titles, credits, and Professional Emphasis Group (PEG) category, the chapter also wanted reporting on who provided the Continuing Education Unit (CEU) and the event format. To accomplish this, the chapter needed to move to a platform that could capture the new data points and function as a database.

Unlike Word, Excel has the ability to serve as both the underlying database and a basic report generator. It allows for more data to be tracked, and it is updated automatically as soon as the underlying data is updated. The Excel database is created by using one spreadsheet to capture the data previously contained in the Word table, plus any new data point. Using another spreadsheet, a report or chart can be created based on the data spreadsheet. When the underlying tables are updated, the charts regenerate with new data. However, once the charts are updated, you cannot access them to rearrange the data. The move from Word to Excel is an improvement, but using Excel’s latest capabilities there’s room for more.
Section 3: Interactive Reports or Dashboards?

With Excel’s pivot tables and charting capabilities, data can also be rearranged, filtered, resorted, expanded and contracted almost at the push of a button. Additionally, if the chapter or firm stores the dashboard on-line and shares a link to the it, everyone can have access to the data in real time. It has become interactive.

In addition, more data can reside in the database table and having those additional data points easily available can save the chapter time by not having to go look through hard copy files or search electronic files for the additional information.

By applying a few more Excel tools, like slicers, you can increase the coolness factor of your dashboard, too, while making it more efficient. It gives you the benefit of:

- Highlighting only your main data points.
- Becoming a visual display for visual people.
- Creating an Executive Summary in a visual report. “I don’t want to see the details, just show me the bottom line.” (But, you can also drill down to details.)
Section 4: Three Steps to an Interactive Excel Dashboard

Let’s start by updating the database itself.

The chapter’s dashboard had been in place for a number of years. It worked well for them, but it was time the chapter took a step in another direction. By applying a few more Excel tools, the chapter could increase the coolness factor of their dashboard and show more information in one place. The chapter could ultimately end up with what’s shown in the screenshot below. The next pages will tell you how the chapter can get there and how you can create an interactive dashboard on your own.

It’s pretty simple. Using Excel, there are only three steps you need to take to create an interactive dashboard.

1. Create a Data Source
2. Insert a PivotTable
3. Create Slicers
Step 1: Create your Data Source in Excel

The first step is creating your data source. If you are wondering what data should be in that source – just think about what it is that you want to report – what is it that you want others to know about?

Your Dashboard pulls information from your Data Source. Your Data Source might have more information than you want on your Dashboard, and that’s okay. You can use some or all of the information from your Data Source. Sometimes it’s necessary to provide groupings of data and filters, so you need some of the information even if it is not included.

You may also want to include more data, so that you can use it for different reports. For example, you may have a table of your employee’s payroll information that you use for your General Liability audit of salaries or your Federal Acquisition Regulation (FAR) audit of direct labor, but if you also included the workers’ composition code in the table, you could use the same data source for your workers’ composition audit. If you included the Equal Employment Opportunity-1 category, you could run your EEO-1 report. Once you have an Excel data source that matches your accounting records, for example, use it for everything rather than downloading multiple reports you would have to reconcile each time.

- Start with raw data
- No blank rows or cells
- Headers are in Row 1
- Make sure dates are formatted as Dates
- Best practice: Insert/Table (screenshot below)
Step 2: Insert PivotTable to a new worksheet.

Rename the worksheet PivotTable, or whatever makes sense for you.

Select the fields you want to show in the PivotTable.
Step 3: Slice Away!

Slicers are the interactive part of your Dashboard.

- Create Slicer
- Select Field for the Slicer
- Cut/place Slicer on Dashboard
You can format the Slicers using the Slicer Tools.

- Resize the buttons within the Slicer.
- Insert more Columns within the Slicer.
- Change the size of the Slicer.
By default, Slicers will be connected to the PivotTable in your Excel file. If you find the Slicer isn’t working, right-click the Slicer and check the Connection.

Right-click the Slicer for more options, for example, to change the Caption.
Now that you have your Slicers ready, all you need to do is arrange them on a new worksheet in the order and format that you prefer. In the sample below, when you click on one of the Dates, the other Slicers (Event, Speaker, CEU) will change to align with the date.

That’s all there is to it! For a live demonstration, click here.
References


How to Create PivotTable in Excel: A Step-by-Step Tutorial, Erik Devaney. [https://blog.hubspot.com/marketing/how-to-create-pivot-table-tutorial-ht](https://blog.hubspot.com/marketing/how-to-create-pivot-table-tutorial-ht)

SDA Resources

Webinar – Excel Macros

Webinar – Creating an Interactive Excel Dashboard

Other Resources

[https://www.melissaesquibel.com](https://www.melissaesquibel.com)

[https://myonlinetraininghub.com](https://myonlinetraininghub.com)

[https://excelcampus.com](https://excelcampus.com)

[https://30secondtraining.com](https://30secondtraining.com)

[https://myexcelonline.com](https://myexcelonline.com)