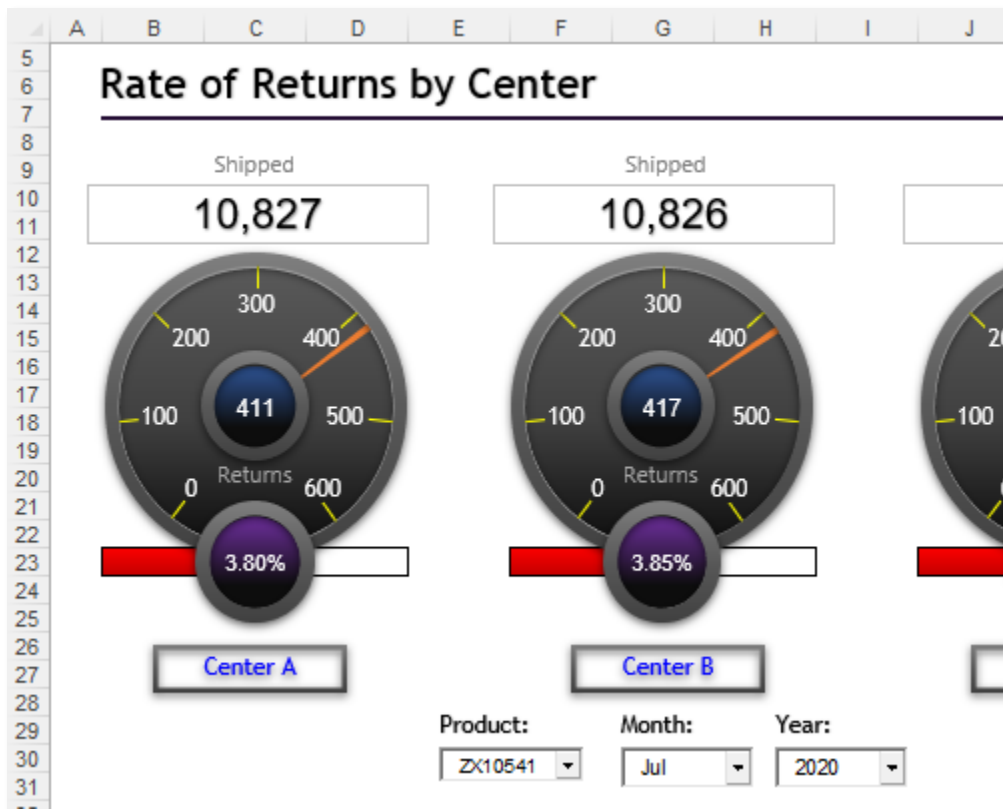


For a video presentation of our class, please visit

https://emagenit.com/microsoft_excel_dashboards.htm >

Questions? 1.805.498.7162

Excel Dashboard Design for Business and Industry



Learn to assemble Excel's "pre-made" features to create powerful hi-tech dashboards that integrate, analyze, and visualize your data.

How our class can help you.

Our 3-day workshop shows you how to create adaptive Excel dashboards that allow you to interact with and visualize your data in innovative ways.

It focuses on how to develop state of the art dashboards by combining key Excel elements like charts, ActiveX controls, shapes, pictures, Data Validation, Conditional Formatting, and worksheet cells. Also discussed is how to create the various dashboard types that organize your strategic, tactical, analytical... and KPI information.

Our class also covers how to process and calculate your data using various Excel functions, Excel tables, array formulas, Power Query, and Pivot Tables. Emphasis is also placed on accessing, integrating, and formatting external data using Power Query and how to integrate weekly data downloads with your dashboards.

Join us and we'll show you how to put all the Excel pieces together to produce that hi-tech dashboard that fits your exact needs.

Key Excel topics covered in class.

- Key dashboard formula design, creating names, and linking workbooks and worksheets
- Storing your dashboard data in worksheet and Excel tables and filtering them
- Designing logic formulas to process dashboard data and interpret UI selections using functions like IF, AND, IS...
- Summing, counting, and analyzing worksheet data using functions like SUMIFS, COUNTIFS, LEFT, YEAR...
- Using ActiveX controls, Form controls, and Data Validation to build user interfaces (UIs) that control your dashboard
- Performing advanced lookups in your dashboard data using concatenation, text functions, and functions like VLOOKUP, XLOOKUP...
- Automatically importing, integrating, and shaping external dashboard data using Power Query
- Creating array formulas that process complex data patterns and perform multi-value lookups
- A review of the major dashboard types, benchmarks, and KPI's and how to use various Excel elements to build them
- Creating and formatting various dashboard chart types and controlling them with Slicers, Excel tables, controls, and Data Validation

- Creating adaptive shape, picture, and worksheet cell displays using linked shapes, linked pictures, and Conditional Formatting
- Quickly creating dashboard maps from linked pictures, linked shapes, and Bing maps
- How to use PivotTables, Pivot Charts, slicers, and timelines to calculate and build adaptive dashboard displays

Excel skills needed for our class.

Select this Excel training if you or your group have:

- Constructed general worksheet formulas like =A1+A2
- Constructed cell references and range references like A1 or A1:A10
- Used worksheet functions like SUM, MAX, MIN...before
- Used Microsoft Excel's data tools before
- Formatted a worksheet before
- Built charts and drawing shapes

Who should attend?

- All disciplines welcome with class problems determined by those in attendance.

How we run the class.

We focus our training on what our customers need. When training begins, we analyze those needs and shift our outline appropriately. We will stress topics or add topics that our customers want. No two training sessions are ever the same with EMAGENIT.

Detailed class syllabus.

Day-1

Dashboard Formula Design, Using Names, and Linking Data

- A review of critical dashboard formula construction and debugging techniques
- Important uses of absolute, relative, and mixed reference cell notation in formulas and Excel's tools
- What is string concatenation and how is it used in formulas?
- How to create, manage, name, and use cell and range names in your formulas

- Efficiently passing data between data sheets and your dashboard using names, cell references, and formulas

Storing, Filtering, and Referencing Your Dashboard Data

- 4 Rules for designing worksheet tables, primary key and foreign key review
- Creating Excel tables and how to use them to create self-adjusting Dashboards
- How to use Excel's Filters, Sort, and Remove Duplicates to process your worksheet data
- Creating names for worksheet and Excel tables for use in Excel's tools and formulas
- How to use structured references in your dashboard formulas so they can automatically adapt to changing data
- Using slicers to filter your Excel tables, dynamically adjust your dashboard formulas, and charts

Designing Logic Formulas for Your Excel Dashboard

- How is logic used to control dashboard data and its user interfaces (UIs)?
- Strategies for detecting logic triggers in your dashboard data
- Building simple logic formulas using the relational operators: <, >, <=, >=, < >, =
- Building single and multi-condition logic formulas using the IF, AND, OR, and IS logical functions
- Creating IF...ELSEIF decisions using nested IF's and the IFS function
- Creating logic by combining key worksheet functions with relational operators

Processing Date, Time, and Text Data

- Parsing date and time data using functions like TEXT, YEAR, NETWORKDAYS.INTL, TODAY, NOW...
- Parsing text data using functions like LEFT, RIGHT, MID, SUBSTITUTE, TRIM, CLEAN...
- Using string concatenation to merge text data and to create date / times

Designing UIs to Control Your Dashboard Formulas and Displays

- Why use the worksheet to construct dashboard user interfaces (UIs)?
- Creating, setting, and linking ActiveX and Form controls with worksheet cells

- Integrating control outputs with dashboard formulas and displays using logic, concatenation, and functions
- Why use Data Validation instead of controls to create a dashboard interface?
- Using Data Validation to control what number, text, or date is typed in your dashboard UI
- How to use Data Validation and names to create a self-adjusting cell dropdown list
- Designing formulas for your Data Validation that allow it to adjust to changing data conditions

Using Dynamic Names to Track Dashboard Data

- What is a dynamic cell and range name and how are they used in dashboard construction?
- How to build dynamic cell and range names using functions like INDIRECT, ADDRESS, OFFSET...
- Using dynamic names to track expanding and contracting data, alternate to structured references
- Using dynamic names to go after data subsets within a column so they can be summed, counted, used in charts...
- Integrating UI selections into your dynamic names

Using Table Lookups to Access and Display Your Dashboard Data

- Using the VLOOKUP, XLOOKUP, and HLOOKUP functions to perform table lookups
- Using string UI selections, concatenation, and text functions to build your lookup value
- Finding a lookup item's # position within a row or column using the XMATCH and MATCH functions
- How to use the INDEX function to return entire table rows and columns
- Using a structured reference to return part of a table
- Using INDIRECT, concatenation, names, and UI selections to toggle tables, columns, and rows in your formulas

Day-2

Using Power Query to Access, Integrate, and Shape Your External Data

- What is Power Query and how is it used to import and rapidly shape worksheet data?
- How to refresh a Power Query table at the click of a button and update its source
- Using Power Query to link with and process data in a workbook, text file, and database
- Performing various Power Query shaping tasks like merging, filtering, sorting, trimming, cleaning... data
- Using Power Query to filter data through a series of tables so the final table can be used in calculations, charts, reports...
- How to perform formula calculations inside a Power Query table

Dashboard Type, KPI, and Metric Review

- What is the difference between a dashboard and a scorecard?
- Review of 4 major dashboard types: operational, strategic, analytical, and tactical
- What Excel elements are needed to create these different style dashboards
- What is a benchmark, metric, and a KPI?
- Review of popular kinds of metric formulas

Summarizing, Counting, and Analyzing Dashboard Data Using Logic

- How to build logic for functions like SUMIFS... and determine logic triggers in your dashboard data
- How to sum, count, and analyze your dashboard data using logic functions like SUMIF, SUMIFS, COUNTIFS, MAXIFS...
- Using string concatenation to create dynamic logic for functions like SUMIFs... due to changes in data and UI selections
- Detecting if data is identical in two different worksheet tables using COUNTIFS

Using Array Formulas to Analyze Complex Dashboard Data

- Overview of how you can use array formulas to analyze complex worksheet data

- Creating Excel array formulas that process complex datasets using the IF function and logic
- Using simple array formulas to pre-process data before being used in functions like VLOOKUP, IF, MAX, AVERAGE...
- Creating Excel array formulas that perform advanced lookups using functions like MATCH, VLOOKUP, INDEX, ROW...

How to Use Linked Drawing Shapes and Pictures to Build Adaptive Dashboard Displays

- Creating various drawing shapes and how to import a picture onto a worksheet
- Formatting, positioning, and layering shapes and pictures in the worksheet z-layer
- Design methods for linking shapes to worksheet cell data and grouping them
- Creating a linked picture that dynamically displays a worksheet range and the elements that float above it
- How to toggle worksheet pictures using dynamic names
- Combining linked shapes and dynamic pictures to produce various dashboard displays

Chart Construction, Formatting, and Constructs for Excel Dashboards

- Creating and formatting chart types like column, line, pie, tree map, sunburst, waterfall...
- Creating combination charts that can display two types of data at once
- Creating secondary axes and curve fits for your chart data
- Building vertical and horizontal limit lines in your chart
- Dynamically adjusting a chart's data series using Excel tables, Slicers, and UI selections
- How to change chart data points, limit lines, and labels using UI selections

Day-3

Creating Speedometer, Linear, and Doughnut Gauges for Your Dashboards

- Laying out and building the formulas and tables that speedometer, linear, and doughnut style gauge charts will use
- Creating a speedometer style gauge using a pie chart and drawing shapes
- Creating a linear style gauge from a bar or column chart and drawing shapes
- Creating a doughnut style gauge from a doughnut chart and drawing shapes

Using Conditional Formatting to Build Various Status and Project / Timeline Displays

- The different uses of Conditional Formatting in dashboards
- A review of the different Conditional Formatting rules and how to set them up
- Using Conditional Formatting to hide or display data in a dashboard
- Using Conditional Formatting to create icon sets and data bars for dashboard data sets
- How to use Conditional Formatting to create status displays using logic and functions
- Using Conditional Formatting to color complete table areas based on logic
- Building dynamic project, timeline, and schedule Gantt charts on the worksheet using Conditional Formatting

Building Milestone Charts for Your Excel Dashboards

- Laying out and building the formulas and table that your milestone chart will use
- Creating a milestone chart and its labels
- Formatting a milestone chart

Excel Dashboard Design Strategies for Map Construction

- How to import map pictures and format them for use in your dashboard
- Placing linked drawing shapes and pictures over your map to display cell data
- How to use Conditional Formatting in linked pictures to make your map light up
- Creating dynamic Bing Maps on your worksheet dashboards

Using Pivot Charts and PivotTables in Your Excel Dashboards

- Laying out and organizing the Excel table that your PivotTable will use
- How to build a PivotTable and Pivot Chart and set their various features
- How to link PivotTables to different data sources

- How to create slicers and timelines that will filter your PivotTables and Pivot Charts
- Formatting your Pivot Charts, slicers, and timelines for that unique dashboard look
- Using Conditional Formatting in your PivotTables
- How to create running totals, ranks, % totals... fields in your PivotTables