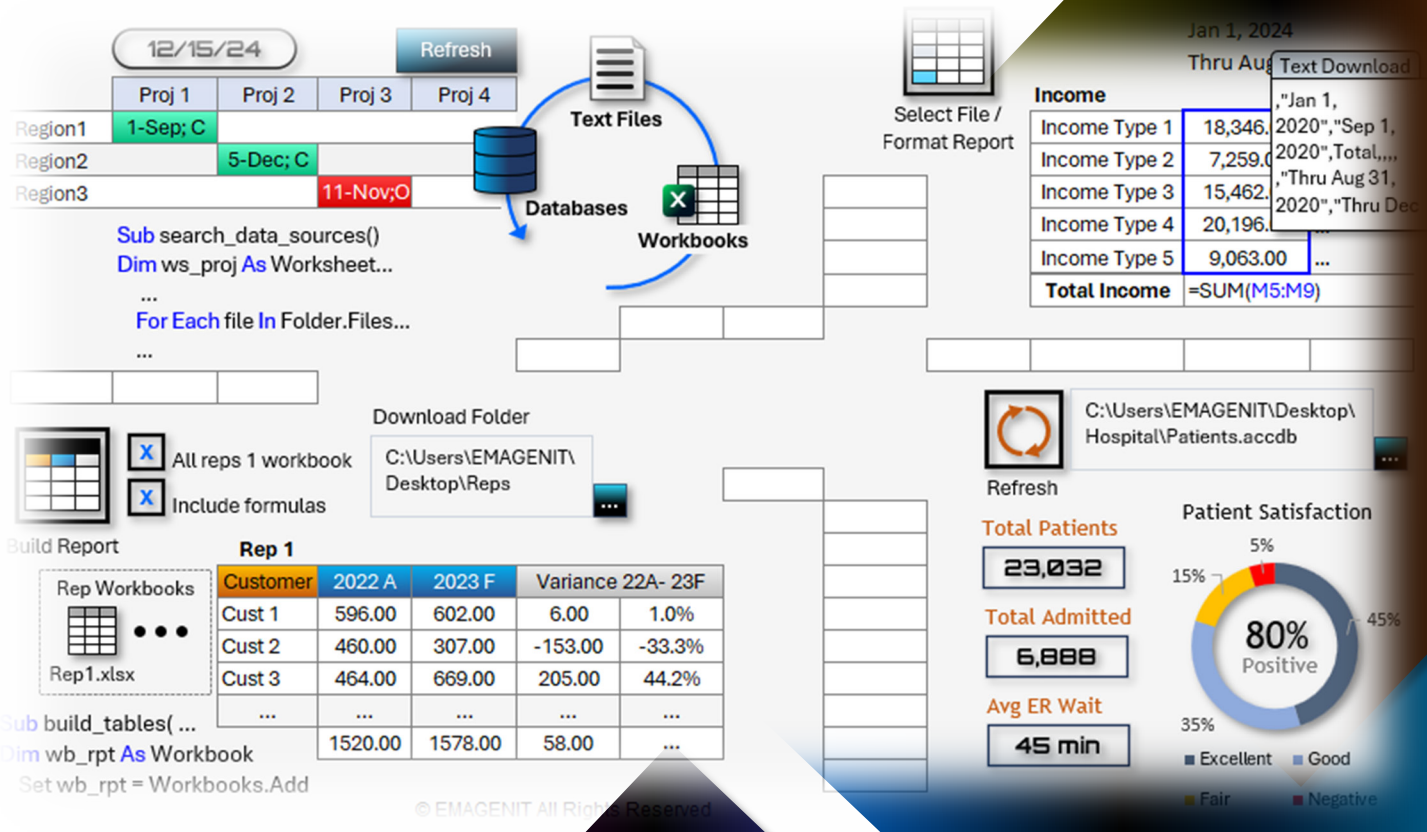
EMAGENIT

State of the art Excel training.

Excel VBA Data Processing

for Business and Industry

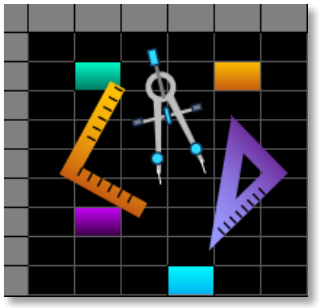


Create that monthly report or analyze data in seconds, not days. Learn to create powerful data tools with Excel VBA that quickly process, integrate, and report data from multiple sources.

www.emagenit.com >

How our class can help you.

Our 2-day class focuses on the key Excel VBA topics needed to format, calculate, chart, and report various types of data.

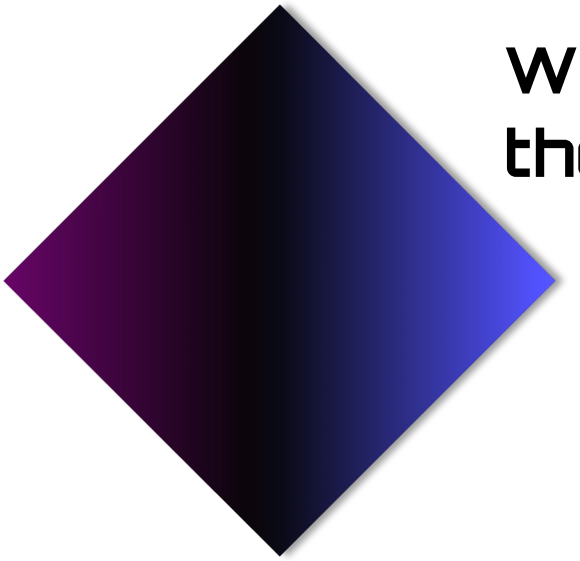


Class Examples >

It covers the essentials like using VBA to track worksheet ranges; calculate data; manage formulas; and perform table lookups. Also covered is how to scan for data in external workbooks and folders and automate Excel's data tools to process large worksheet datasets..

In addition, it shows how to analyze complex worksheet data patterns; fill forms; and create chart, status, summary tables... from raw data.

It also shows how to query databases; control text files; create multi-chart reports; and visualize data using VBA, charts, shapes, and worksheet ranges.



Who should attend the class?

Business, government, industry, military, engineering, science, techs... Class examples will be determined by those in attendance.

Minimum Excel skills needed for the class.

Select this Excel training if you or your group have:

- Used variables, loops, functions, declarations... in a basic capacity in VBA
- Used and written basic logic in VBA
- Formatted worksheets and know Excel's basic formatting capabilities
- Used Microsoft Excel's data tools, charts, and shapes manually and know them operationally
- Have used Excel's worksheet functions like MATCH, COUNTIF, SUMIF, VLOOKUP...

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 or add topics that our customers want.

Class formats and signup.

In-Person, Virtually, and Onsite. Our live hands-on classes can be attended virtually or in-person. Please visit our public signup page for class times and pricing >. Contact EMAGENIT directly at 805.498.7162 for more information about our onsites.

Key Excel topics covered in class.

- Review of the critical Excel objects VBA language elements used in data tool development
- How to track ranges, control formulas, and run data functions in VBA
- Using Excel VBA to control workbooks, folders, and files
- Building loops and logic to scan for data in multiple workbooks and folders
- How to design user interfaces on the worksheet to control your data tools
- Automating Excel's data tools and PivotTables to rapidly process large worksheet datasets
- Building loops and logic to process financial, inventory, stacked / broken, grouped... worksheet data
- Performing multi-table lookups and calculations on your worksheet data with Excel VBA
- How to use VBA to create, fill, calculate, and format various report tables and forms
- How to open, process, write, and close text files
- Using VBA to build, format, and layout charts on worksheets (chart reports)
- How to combine VBA, Charts, and shapes to make dashboards
- Using VBA, SQL, ADO, and Power Query to integrate database, workbook, and text file data

Detailed class syllabus.

Day-1

Excel VBA Editor, Language, Object, and Debugging Topics

* This section discussed throughout the class when needed

- How to use the VBA Editor and its debugging tools in Excel data app design
- Review of the VBA elements and Excel objects used in data app development
- How to design logic for your data processing tasks
- Using object expressions and Set statements in your code to track objects
- Using CreateObject and GetObject to track other program objects in your code
- How to use OnTime to run procedures at a specific time

Tracking Ranges, Calculating Data, and Managing Formulas with VBA

- Tracking worksheet data ranges in VBA using Range, Cells, CurrentRegion, Find...
- Performing math, statistical... operations in your code using SUMIFS, STDEV.S, COUNTA...
- Determining range start / stop points in datasets and using them in function calculations
- Performing date time operations using functions like Month, Year, DateDiff, Format... in VBA
- Using macros to build and auto fill formulas down or across worksheet tables
- Using Excel VBA to build formulas and place calculated values below or beside worksheet tables

Scanning for Data and Controlling Workbooks / Folders with VBA

- Controlling workbooks in your code using Open, Add, Close, SaveAs...
- Using the Set statement in your VBA code to track multiple workbooks at once
- How to control the Windows folder and file system with VBA (create folders, delete files...)
- Scanning for data in folders, workbooks, and text files using loops, logic, and functions
- How to name your data workbooks and text files so they can be easily tracked in VBA
- Using MATCH, COUNTA, Cells, Find... in your code to locate data on a sheet

Designing UIs to Control Your Excel VBA Data Tools

- Laying out and formatting your data tool interface on the worksheet
- Using the FileDialog object to construct file and folder pickers for your data tools
- How to control inputs in your UIs with Data Validation and ActiveX controls
- How to use Excel VBA to set and read ActiveX controls and Data Validation
- Creating program displays with shapes and Excel VBA
- Using userforms, buttons, and VBA to design a toolbar to run your data tools

Rapid Report Generation Using Excel's Data Tools and VBA

- Using Excel VBA to automate AutoFilter, Advanced Filter, Sort, PivotTables...
- Using macros to copy and paste filtered data to a report worksheet
- Using VBA to parse a report name list and create report worksheets in a specific order

- Looping Excel's filters and stacking the data on multiple report worksheets
- Using loops and logic to build and stack PivotTables on report worksheets
- Controlling Excel tables, their formulas, data features, and slicers with Excel VBA

Using VBA to Analyze Complex Worksheet Data Patterns

- Using VBA. to analyze and calculate complex downloads like Bank, inventory, stacked... tables
- Using cell formats, blanks, indents, fonts... as logic triggers when analyzing sheet data
- Parsing and cleaning corrupted data in VBA using functions like Mid, Instr, CLEAN, TRIM...
- Inserting formulas and calculated values at specific rows or columns in downloaded data sets
- Using Excel VBA to lookup up data in worksheet tables and perform calculations
- Building summary tables and reorganizing data on different sheets with VBA

Day-2

Using VBA to Create, Format, and Fill Worksheet Tables and Forms

- Inserting, deleting, and moving worksheet table rows and columns with VBA
- Using Excel VBA to format various worksheet table patterns
- Rules for designing pre-built worksheet report templates (naming cells, marking start cells...)
- Using VBA to read data and fill out and calculate premade worksheet forms and templates
- Creating summary report tables like revenue / expenses, human resources... with Excel VBA

- How to use Excel VBA to add formulas or output data to table rows and columns
- Using VBA to consolidate data from multiple workbooks and create data tables for charts

Using VBA, Charts, and Shapes to Create Basic Dashboards

- Using Excel VBA and templates to create various chart types like doughnut, line, combo charts....
- Resetting a chart's data source to a range or array with VBA
- Arranging multiple charts on a worksheet with Excel VBA (chart report)
- Creating chart limit lines, curve fits, data labels... with VBA
- Using Excel VBA to color data points, hide / display series...
- Combining VBA, Charts, and shapes to form basic dashboards and data displays

Analyzing and Controlling Text Files with Excel VBA

- Automating Text Wizard to parse and load text data directly onto a worksheet
- How to open, close, write, and modify text files using TextStream objects
- Using loops, logic, arrays, and functions to scan and analyze text file data
- Cleaning and parsing corrupted text files with Excel VBA
- Using loops, logic, and string concatenation to assemble text data and write it to a text file

Using ADO and SQL to Query Databases, Workbooks, and Text Files

- Review of ADO and how it can be used to control different data sources in Excel VBA

- Basic SQL language review and how to use it to query, update, insert, and delete database data
- Using string concatenation in your VBA code to assemble SQL statements and connection strings
- Using ADO objects in VBA to query databases, workbooks, and text files
- How to use Power Query, Excel tables, and VBA to quickly integrate and filter data
- Generating VBA code to control Power Query with Record Macro

Using VBA and Outlook to Auto Email Your Reports

- Key Microsoft Outlook objects to know
- Attaching an Excel file or text file to an email using VBA
- Loading email recipient, subject, body text... using Excel VBA
- Using Excel VBA to automatically send your email from Outlook
- Design methods for using Power Query, Excel tables, and VBA to quickly integrate and filter data from different sources
- Using VBA and Record Macro to control Power Query and Excel table settings