

Financial Analysis VBA Certificate Master Classes

**A series of Master Classes extending Australia's premier
Excel VBA course for finance professionals**



A series of one and two-day master classes focusing on key areas relating to VBA development in Excel. Most of these courses are open to all Excel users. They have been designed as companion master classes and extensions of the core knowledge and skills presented in the Financial Analysis VBA Certificate (FAVC).

This series delves more deeply into specific subject areas or builds greater expertise in those areas than is suitable in the FAVC. It also addresses the desire from many of our past students to provide ongoing training & support in a format that they appreciate.

Modes of Study

- In class mode: 16 hours over two days, or 8 hours on one day
- Public offerings starting in Sydney in 2016
- Private offerings also available

Key Outcomes

- Gain advanced skills in key subject area, such as cross-application development, email automation, advanced interface design;
- 8 to 16 hours of continuing professional education for accountants;
- Gain insights into the development of robust code for routine analytical & reporting tasks.

Each Session Delivers

- Core knowledge for the specialised subject area;
- Sample re-usable code to effectively extend your existing applications;
- Guidance on how to avoid real-world problems;
- Advanced VBA for Excel / Office program techniques.

Who Benefits

- Those who have previously completed the Financial Analysis VBA Certificate or Financial Analysis Systems Certificate looking for support and guidance in key development and automation subjects.

Benefits for the Employer

- A reduction in the effort required by staff to expand into key advanced topics;
- Access to robust real-world samples of code for addressing cross-application and advanced programming tasks.
- Reduction in development times and staff frustration addressing key subject areas.
- A development path for key staff involved in automation of business processes.

Currently Available Master Classes

The following master classes are currently available in this series, more will be added soon.

	Module	Duration
Master Class 1:	Email Integration	2 days
Master Class 2:	Working with External Data	2 days
Master Class 3:	Ribbon, Context Menus & Handling Events	2 days
Master Class 4:	Building & Deploying Add-ins	1 day

Detailed Course Outlines

Email Integration (2 days)

This master class is designed to address areas around the use of email to automate the distribution of information stored within Excel, or accessed from other sources via Excel. It demonstrates proven solutions to these workflow automation processes derived from real-world solutions and solves many common issues experienced by VBA programmers looking to control the generation, formatting, attaching and embedding files and management of email from within Excel-based VBA applications.

Most content is focused on working via Outlook, but methods and issues with integration directly to web-based mail platforms is also covered.

Master Class Details

- Two days in-class
- 16 hours CPE
- Companion text and online access to files and support

Sample Applications

- Distribution of Reports Using Excel only
- Distribution of Reports via Outlook or CDO (Collaboration Data Objects) with html body (whole file)
- Distribution of Reports via Outlook or CDO with html body (selected sheets / ranges only)
- Tracking responses & sending follow-ups
- Locating and processing emails & attachments from an Outlook inbox

Basic Email Integration

- Utilising SendMail in Excel
 -) What it can do, what it can't
 -) Extending what it can do
 -) Splitting workbooks
- Hyperlink-based mail integration
- Managing & maintaining the distribution list
- Custom Views to prepare workbook

Working with Other Mail Clients

- Using to send email via other clients
- When to use CDO / Outlook
- Updating the html body in CDO
- Working with Attachments and links in CDO

Working with Outlook Mail Client

- Referencing Outlook for development
- Using CreateObject for version safe reference
- Early & Late Binding explained, impact of early & late binding on testing
- Key properties & methods
- Working with namespaces, folders & inspectors
- Creating a new email
- Creating a new email from a template
- Modifying the email body in plain text
- Modifying the email body using html
- Text substitution when using a template
- Selecting the account, and deriving sender information
- Setting the signature block
- Working with attachments
- Working with ICS files to share appointments, deadlines, reminders

Developing a Re-Usable Custom Class to Manage Email Construction and Distribution

- How to use Class Modules
- Understanding properties and writing property procedures
- Understanding Initialize and Terminate events
- Working with Default and Enumerator Procedures
- Implementing the custom class in applications
- How to re-use the class in your own projects

Working with External Data (2 days)

This master class is designed to demonstrate how to work with external data sources through VBA. It will introduce the participant to the syntax of SQL and demonstrate how to develop data management routines in VBA that query external databases, and retrieve data for analysis in Excel.

Both inline and stored procedure query approaches are demonstrated. Acquiring and parsing data from web sources is also covered, along with integration with Power Query to open up the range of data sources that may be accessed.

Working with data in Excel, via direct manipulation and via PivotTables, Tables and Power Pivot is demonstrated, along with the creation and update of filters and slicers to enable the preparation of reports for distribution within the organisation.

Sample Applications

- Collation of data from multiple workbooks
- Consolidation PivotTable using multiple workbooks
- Update of report, using standard SQL query
- Update of report, selecting and retrieving data based on end-user supplied parameters

Importing from a Workbook Set

- Locating the import target location
- Determining if old data should be purged
- Locating the source workbook(s)
 - └ Stored source locations
 - └ Prompting for a folder
 - └ Prompting for one or more file sets
 - └ Locating workbooks on the web
- Importing & updating the stored data
- Logging import activity
- Moving / flagging processed workbooks

Importing from an SQL Data Source

- ActiveX Data Objects (ADO) and Data Access Objects (DAO) object models and data sets
- Referencing ADO and DAO libraries
- Using CreateObject for version safe reference
- Early & Late Binding explained
- Key properties & methods
- Impact of early & late binding on testing

- Opening a connection to the SQL data source
- Retrieving data based on a stored query
- Updating parameter values for the query
- Building the query via assembled in-line SQL code
- Formatting issues with data values passed to SQL
- Executing the query
- Handling the retrieved data set
 - └ Pasting the data as a block
 - └ Locating & updating affected records
 - └ Working with the Fields collection

Integrating with Power Query

- Calling previously stored Power Query tasks to implement automated update from known sources
- Modifying the Power Queries to handle dynamic data sources

Integrating with Power Query, PivotTables etc

- Creating and modifying filters
- Creating and modifying slicers and timelines
- Automating data refresh
- Modifying PivotTables
- Automating reporting with PivotTables and Charts

Ribbon, Context Menus & Handling Events (2 days)

This master class is designed to demonstrate how to work with the ribbon in Excel (and other Office applications), canvasses different control types and demonstrates how to build and modify ribbon tabs in Excel.

We demonstrate how to work with button controls, toggle controls, menus, dynamic menus, drop-down lists and galleries. Also demonstrated is how to modify the context menus to add in-context functionality within your applications, allowing users to access functionality with a right-click.

Interacting with the application, active workbook any of the worksheets in a workbook through event handling procedures, and how to design and develop custom objects, with their own properties, methods and events is demonstrated.

It demonstrates proven solutions to these processes derived from real-world solutions and solves many common issues experienced by VBA programmers looking to add these skills to their arsenal.

Sample Applications

- DataBank Revisited
 -) Building a new menu on the Home tab
 -) Building a custom DataBank tab on the ribbon
- Building an Automated navigation interface
- Extending Excel, by adding tools to Context Menus

The Easy Stuff

- Modifying the Quick Access Toolbar & Ribbon via Options

RibbonX XML Code

- About the XML code used to modify the Office application ribbons
- Version differences for Excel 2007 and Excel 2010 and later
- Ribbon Controls
- Ribbon Control Properties
- Installing the latest CustomUI editor
- Editing RibbonX using the CustomUI editor
- Checking the XML code is valid
- Adding new icons / using built-in icons
- Creating the Callback routines

Implementing Ribbon Callback Procedures in Excel

- Safely building callback procedure declarations
- Detecting the control issuing the callback request
- Implementing the callback events for control test, status and visibility
- Resetting the ribbon or a control
- Safely handling referencing ribbon after code recompile
- Responding to key worksheet & workbook events to update controls
- Providing XML code for dynamic menus and galleries

Modifying Context Menus

- Detecting when changes should be made
- Responding to key worksheet & workbook events to update context menu entries
- Adding context menu entries through RibbonX
- Adding context menu entries via VBA code
- Removing context menu entries via VBA code

Final Workshop

- Build a Ribbon for your own application with facilitator assistance

Building & Deploying Add-ins (1 day)

This master class is designed to demonstrate how to build and deploy Excel-based add-ins, covering some straight-forward but obscure knowledge areas to ensure for a successful deployment and support process.

It covers end-user customisation, reacting to system level events, deployment and update, ribbon and interface design, documentation and online help for users.

It demonstrates proven solutions to these processes derived from real-world solutions and solves many common issues experienced by VBA programmers looking to move to this more advanced mode of deploying functionality to be shared across desktops and workbooks.

Prerequisite

- Completion of the Ribbon, Context Menus and Handling Events Master Class is a prerequisite for this master class, as it will rely on content from that course.

Sample Applications

- Add-in to provide custom functions for use across an organisation
- Add-in to provide new menu options & functionality across an organisation

Excel Add-ins (XLAM)

- What can be seen / stored in an XLAM add-in?
- Creating an Add-in and selecting a format
- Installing an add-in

Custom Functions

- A quick refresher
- Limitations on custom functions
- Providing online help for the Function Arguments box
- Setting the Function Category

Programming an Excel Add-in

- Thinking about context
 -) referencing ThisWorkbook / ActiveWorkbook
 -) working with open workbooks
 -) working with application windows
- Responding to Add-in installation and load
- Understanding different instances of Excel
- Where to store user settings
 -) What ought to go in the registry
 -) What ought to be saved in the add-in itself
- Using hidden names in workbooks to control behaviours
- Managing versions, updating the Add-in

Add-in Deployment

- How to deploy and install the add-in
- Planning for installation of updated add-ins
- Add-in options in Excel

Excel Version

- The course materials are fully compatible with all versions of Excel from Excel 2010 to Excel 2016. Version specific instructions are given where these vary between versions. Note VBA is not available in online Office 365, although it is available in the desktop version associated with it.
- Public courses are conducted using Excel 2010, often with Excel 2016 available. On student PCs, any version from Excel 2010 onwards may be used, but we would recommend Excel 2013 or later.
- Note that for the Macintosh, VBA is not supported in Excel 2008, only Excel 2011 or Excel 2016 for the Macintosh may be used, and Excel 2016 is strongly recommended.

Course Materials

- The course materials vary depending upon the subject matter and technical references required, but each code camp's manual includes at least 25-30 pages of material per day of instruction.
- A full set of blank and worked sample workbooks as well as a number of reference documents are available for download online.

Public Courses

Public offerings of the Financial Analysis VBA Certificate Master Classes are available in all capital cities. For details, visit our web site (www.clarksonitt.com/calendar) or call +61 (0) 417-777-750.

Private Courses

In-house offerings of the Financial Analysis VBA Certificate Master Classes can be arranged anywhere in Australia & we can assist with the hire of suitable training facilities where those are not available in-house. This would prove economical where a number of staff have previously completed the Financial Analysis Certificate or had attained an equivalent skill level. Requirements for facilities are discussed on our web site. For a quotation or to discuss your particular needs, call +61 (0) 417-777-750.

About the Course Author and Lead Presenter



Following an early career in both public and commercial accounting, James Clarkson has more than twenty-five years' experience as a presenter of professional programs and more than thirty consulting & model building for corporate clients.

He has gained wide experience in model & analytical report design & development and also has wide experience in application development using Microsoft Office (especially Excel), Visual Basic & Visual Basic for Applications (VBA).

He is an outstanding educator, having presented to more than 7,500 students in long-format multi-day courses and thousands more in short courses over more than 25 years. He has a demonstrated ability to clearly explain difficult and technical subjects and consistently rates above 90% for satisfaction across a number of measures on student evaluations.

Financial Analysis VBA Certificate



The Financial Analysis VBA Certificate is our premier VBA course. It or the former Financial Analysis Systems Certificate is a prerequisite for attendance at the Extension Program series, as the naming conventions, layout and other guidelines used in the Master Class program are all based on those taught and explained in those courses. It provides a thorough grounding in VBA and is the base on which the Master Class series is built.