THE POWER OF FILEMAKER – PART 1 (INTERMEDIATE)

26-27 November 2018, Board Room, Adina, 88 Flinders Street, Melbourne
Main presenter: Ray Cologon, Director of Development, NightWing Enterprises Pty Ltd

SESSION FORMAT:

The class will take place over two full days and will comprise seven substantive and wide-ranging topics aimed at intermediate level FileMaker users and developers.

Each session will have a practical focus, while allowing ample opportunity for discussion of the underlying reasoning and thinking behind the techniques being explored. There will also be plenty of time for questions and interaction, and practical exercises that take a workshop format to explore and apply key ideas throughout the course.

Examples and demo files will be available to participants, and participants will also create and keep their own initial example files during the classes, illustrating the techniques learned.

Interaction between participants is encouraged as part of a mutual learning and exploration process.

Summary/Overview of Topics:

Day 1:		**Introduction**

Introduction
– Introduction of presenter and participants
– Overview of the schedule
– Logistics and orientation
– Framework, purposes and objectives of the class

1. Mainstay Techniques of FileMaker Professionals
– FileMaker Views – the when, why, where and how.
– Considerations for working with multiple windows (and environments)
– Setting up, handling and automating compound and multi-step Find operations
– Saving Find criteria and options for saving found sets
– Compound and complex relationship filtering and the mysteries of GTRR
– An in-depth look at the operation of global fields and global calculations
– Filtering portals and creating custom "pick lists"
– Using popovers for menus, for progressive revelation and for related data
– Controlling one window from another
– Understanding the nuances of formatting of FileMaker data
– Different types of FileMaker variables, their scope and uses
– Indexing explained, index states, index types and related issues

2. Extending Skills for Interface Design – Part 1
– Different interface requirements and considerations for deployment modes
– Deployment considerations regarding fonts and rendering behaviour
– Creating screen dynamism with slide controls and popovers
– Leveraging layout theme and style capabilities in your solutions

3. Exploring the Secrets of Data Modelling
– Origins and aims of Relational Theory and its impact on FileMaker
– Systems as a reduction of real-world complexity
– Getting entities/attributes working for you, not against you
– Understanding the operation of relationship filtering in FileMaker
– Options for generating unique keys, integrity and data type considerations
– Alternate join types and their uses
– Array elements and array management options
– Approaches to managing the FileMaker Relationships Graph
– Notation and documentation of your database structure
– Considering discrete application layers (data, logic, interface)
– Data distribution using APIs, external data sources and ESS
– FileMaker data separation – approach and implementation considerations

Day 2:

4. Extending Skills for Interface Design – Part 2
– Understanding and using layout resizing and anchoring behaviour
– Jump buttons, menu design and navigation frameworks
– Understanding and using sliding and reducing capabilities to generate print/output
– Scripted control of windows, window types and window operations
– Custom dialogs and dialog-surrogates as an interface tool

5. Building Blocks of Logic: FileMaker Calculations
– Considering structured syntax and nesting of logical operations
– Reviewing order of operations and boolean constructs in FileMaker
– A deeper look at the role of variables in FileMaker calculations
– Text manipulation techniques and text parsing in FileMaker
– Text formatting operations via calculation
– Calculation work with dates, times and timestamps
– Defining data domains and ranges using Max and Min
– Working with lists and arrays in calculations
– Abstraction using the GetField( ) and Evaluate( ) functions
– Working with (and understanding) unstored calculations
– Building calculations that reference environment constants, variables and metadata
– Introducing Custom Functions
– Options for calculation code commenting and formatting

6. The FileMaker Procedural Engine
– Getting organised and working in the FileMaker Script Workspace
– Setting up scripts to address interface objects
– Building error-tolerant scripts and error-handling techniques
– Considerations for scripting and user access privileges
– Examining the range of script triggering options and issues
– The uses of script parameters, script variables and script results
– Concepts and techniques for indirection and abstraction in FileMaker scripts
– Forms and applications of nonlinear logic in FileMaker scripts
– Modularising script code and the use of sub-scripts
– Scripting file operations and working with file paths
– Scripted import and export procedures
– Moving data between tables and the use of "allow create" relationships
– Review of options for script architectures

7. Overview of File and System Architectures
– The distinction between data and file structure
– Understanding data sources and file interdependencies
– The basics of separation vs unified architectures
– Distributed deployment options and considerations
– System migration and update options

Conclusion
– Review, Q&A, Discussion
– Feedback, Evaluations and Follow-Up
– Closure