

INTRODUCTION

Welcome to FileMaker 9 Developer Reference

Just the Facts

This is the book we've always wanted on our desks. Just as a writer always needs a dictionary nearby, we've found over years of developing FileMaker solutions that it'd be great to have a quick set of reminders within reach. It's impossible to recall each function's syntax or every script step's attributes. Although we use the `Let()` function every day, the exact output of `RelationInfo()` can be a little less fresh in our minds. This desk reference contains notes on all the script steps and calculation functions in FileMaker; provides lists of other facts such as error codes, port numbers, and XML grammars; and offers a library of useful or instructive custom function examples. We hope this book provides invaluable assistance to like-addle-minded developers everywhere, regardless of your experience with FileMaker.

Help Is a Function Key Away

Before going any further, we'd like to congratulate the tech writers, engineers, and product managers at FileMaker, Inc., for an excellent help system and electronic documentation. If you've never used FileMaker's help resources or website, you're missing a wealth of information. Both are fantastic places to learn, refresh your memory, or uncover areas of FileMaker you had no idea were there.

Sometimes, though, it's nice to leave what's on your screen unchanged, keep your work and your reference material separate, and be able to turn to actual paper. (It's hard to take notes in the help system, for example!)

Some of this book may overlap a bit with the help system, especially in cases where there's really nothing more to add: for example, as in the `Abs()` function. Where we hope this book does prove useful is in the additional information and examples we provide, the fact that it's collected all here on paper, and that it's more accessible during those times when you may not be in front of FileMaker or a laptop.

This desk reference is intended to be just that—a reference. It should serve beginners and experts alike and isn't intended to be read from cover to cover. Rather, the intent is that you'll look up functions you've forgotten, dog-ear useful pages, take notes, and find it a handy tool for building solutions quickly in FileMaker.

How This Book Is Organized

FileMaker 9 Developer Reference is divided into seven parts, each of which can stand on its own.

Part I: FileMaker Specifications

Part I covers the nuts and bolts of FileMaker's product family:

- Chapter 1, "FileMaker 9 Product Line," provides an overview of all FileMaker products and what purposes and audiences they serve.
- Chapter 2, "New Features of FileMaker 9"; Chapter 3, "Overview of FileMaker 8.5 Features"; and Chapter 4, "Overview of FileMaker 8 Features," provide an overview of the main features added to FileMaker Pro and FileMaker Pro Advanced in versions 8, 8.5, and 9.
- Chapter 5, "Specifications and Storage Limits," details the various hardware and software specifications for each product and other pertinent load statistics.
- Chapter 6, "Field Types and Import/Export Formats," reviews FileMaker's field data types and the details of supported import/export formats.

Part II: Calculation Functions

Part II details all FileMaker Pro calculation functions, syntax, and usage:

- Chapter 7, "Calculation Primer," reviews the layout and functionality of the calculation dialogs.
- Chapter 8, "Calculation Signatures," lists by category of the syntax and the output type for each calculation function.
- Chapter 9, "Calculation Functions," provides a complete description of each calculation function, lists examples, and in many cases offers additional comments on usage.

Part III: Custom Functions

Part III offers real-world examples of custom functions:

- Chapter 10, “Custom Function Primer,” introduces the mechanics of creating custom functions, including how to build functions that use recursive logic.
- Chapter 11, “Useful Custom Functions,” presents a collection of custom functions the authors have found useful or representative.

Part IV: Script Steps

Part IV reviews FileMaker’s script steps and their options in detail:

- Chapter 12, “Scripting Primer,” provides an overview of the mechanics of ScriptMaker and of working with script parameters, script results, and script variables.
- Chapter 13, “Script Step Reference,” lists in alphabetical order all script steps in FileMaker Pro, their options, and notes on usage.

Part V: FileMaker Connectivity

Part V provides reference materials covering some of the major ways to connect to a FileMaker solution:

- Chapter 14, “FileMaker XML Reference,” details FileMaker’s XML grammars and provides a Custom Web Publishing command reference.
- Chapter 15, “FileMaker API for PHP,” documents FileMaker’s external API for PHP connectivity.
- Chapter 16, “JDBC/ODBC and External SQL Connectivity,” reviews how to prepare a FileMaker solution for access from external applications via ODBC or JDBC, and how to configure a DSN for connecting a FileMaker solution to an ODBC data source.
- Chapter 17, “AppleScript Integration,” provides an overview of the AppleScript object model for FileMaker.

Part VI: Quick Reference

Part VI provides quick reference to commonly needed FileMaker facts:

- Chapter 18, “FileMaker Error Codes,” provides a complete list of all error codes.
- Chapter 19, “FileMaker Keyboard Shortcuts,” lists shortcuts for both Mac and Windows.
- Chapter 20, “FileMaker Network Ports,” lists information useful for IT/infrastructure support.
- Chapter 21, “FileMaker Server Command Line Reference,” provides syntax and examples for administering FileMaker Server from a command line.

Part VII: Other Resources

Part VII helps you discover other ways to learn about FileMaker:

- Appendix A, “Additional Resources,” presents a list of additional resources we have found helpful in FileMaker development.

Special Features

This book includes the following special features:

- **Cross-references**—Many topics are connected to other topics in various ways. Cross-references help you link related information together, no matter where that information appears in the book. When another section is related to one you are reading, a cross-reference directs you to a specific page in the book on which you will find the related information.
- **Notes, Tips, and Cautions** can be found in various spots throughout the book.

Note

A note contains information that offers additional details about the topic being discussed. These notes give you added insight into the discussion, but aren't absolutely essential to understanding the given topic.


Tip

A tip provides you with additional information that goes beyond what you might ordinarily know about a certain topic. Often, these tips contain helpful hints from our personal experience working with FileMaker over the years.

Caution

Pay special attention to cautions. They are provided to help you avoid certain pitfalls, or to reiterate a specific point that could trip you up if you aren't careful.

- **Icons**—In certain chapters we also refer to information that might pertain only to a certain platform. The following icons alert you to the usage for the item they appear with:

Windows only 

Mac OS X only 

Web only 

If more than one icon appears in a location, then the usage applies to each platform represented.

Typographic Conventions Used in This Book

This book uses a few different typesetting styles, primarily to distinguish among explanatory text, code, and special terms.

Key Combinations and Menu Choices

Key (and possibly mouse) combinations that you use to perform FileMaker operations are indicated by presenting the Mac command first in parentheses followed by the Windows command in brackets: (⌘-click) for Mac and [Ctrl+click] for Windows, for example.

Submenu choices are separated from the main menu name by a comma: File, Manage, Value Lists.

Typographic Conventions Used for FileMaker Scripts

Monospace type is used for all examples of FileMaker scripting. FileMaker scripts are not edited as text but are instead edited through FileMaker's graphical script design tool, called ScriptMaker. As a result, scripting options presented visually in ScriptMaker need to be turned into text when written out. We follow FileMaker's own conventions for printing scripts as text: The name of the script step comes first, and any options to the step are placed after the step name, in square brackets, with semicolons delimiting multiple script step options, as in the following example:

Show All Records

Go to Record/Request/Page [First]

Show Custom Dialog [Title: "Message window"; Message; "Hello, world!"; Buttons: "OK"]

Who Should Use This Book

We hope that anyone who develops FileMaker systems will find many aspects of this book useful. It's a book we, the authors, use in our day-to-day work, but that doesn't mean its use is limited to experts. This reference material is meant to be convenient and accessible to everyone.

