Eight quick reference guides one great price!

Microsoft® Office

Excel 2007

REFERENCE DESK L-IN-ONE

FOR.

BOOKS

- Excel Basics
- Worksheet Design
- Formulas and Functions
- Worksheet Collaboration and Review
- Charts and Graphics
- Data Management
- Data Analysis
- Excel and VBA

Greg Harvey, PhD



Eight quick reference guides — one great price!

Microsoft® Office

Excel® 2007

ALL-IN-ONE DESK REFERENCE

DUMMIES

8 IN 7

- Excel Basics
- Worksheet Design
- Formulas and Functions
- Worksheet Collaboration and Review
- Charts and Graphics
- Data Management
- Data Analysis
- Excel and VBA

Greg Harvey, PhD



Excel® 2007 All-In-One Desk Reference For Dummies®

by Greg Harvey



Wiley Publishing, Inc.

Excel[®] 2007 All-In-One Desk Reference For Dummies[®]

Published by **Wiley Publishing, Inc.**111 River St.
Hoboken, NJ 07030-5774
www.wiley.com

Copyright © 2007 by Wiley Publishing, Inc., Indianapolis, Indiana

Published by Wiley Publishing, Inc., Indianapolis, Indiana

Published simultaneously in Canada

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as permitted under Sections 107 or 108 of the 1976 United States Copyright Act, without either the prior written permission of the Publisher, or authorization through payment of the appropriate per-copy fee to the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, (978) 750-8400, fax (978) 646-8600. Requests to the Publisher for permission should be addressed to the Permissions Department, John Wiley & Sons, Inc., 111 River Street,

Hoboken, NJ, 07030, (201)748-6011, fax (201)748-6008, or online at http://www.wiley.com/go/permissions.

Trademarks: Wiley, the Wiley Publishing logo, For Dummies, the Dummies Man logo, A Reference for the Rest of Us!, The Dummies Way, Dummies Daily, The Fun and Easy Way, Dummies.com, and related trade dress are trademarks or registered trademarks of John Wiley & Sons, Inc. and/or its affiliates in the United States and other countries, and may not be used without written permission. Microsoft and Excel are registered trademarks of Microsoft Corporation in the United States and/or other countries. All other trademarks are the property of their respective owners. Wiley Publishing, Inc., is not associated with any product or vendor mentioned in this book.

LIMIT OF LIABILITY/DISCLAIMER OF WARRANTY: The publisher and the author make no representations or warranties with respect to the accuracy or completeness of the contents of this work and specifically disclaim all warranties, including without limitation warranties of fitness for a particular purpose. No warranty may be created or extended by sales or promotional materials. The advice and strategies contained herein may not be suitable for every situation. This work is sold with the understanding that the publisher is not engaged in rendering legal, accounting, or other professional services. If professional assistance is required, the services of a competent professional person should be sought. Neither the publisher nor the

author shall be liable for damages arising herefrom. The fact that an organization or Website is referred to in this work as a citation and/or a potential source of further information does not mean that the author or the publisher endorses the information the organization or Website may provide or recommendations it may make. Further, readers should be aware that Internet Websites listed in this work may have changed or disappeared between when this work was written and when it is read.

For general information on our other products and services, please contact our Customer Care Department within the U.S. at 877-762-2974, outside the U.S. at 317-572-3993, or fax 317-572-4002.

For technical support, please visit www.wiley.com/techsupport.

Wiley also publishes its books in a variety of electronic formats. Some content that appears in print may not be available in electronic books.

Library of Congress Control Number: 2006934843

ISBN-13: 978-0-470-03738-6

ISBN-10: 0-470-03738-5

Manufactured in the United States of America

1098765

1B/QX/RS/QW/IN



About the Author

Greg Harvey has authored tons of computer books, the most recent being *Excel 2007 For Dummies, Windows Vista For Dummies Quick Reference,* and *Excel Workbook For Dummies.* He started out training business users on how to use IBM personal computers and their attendant computer software in the rough-and-tumble days of DOS, WordStar, and Lotus 1-2-3 in the mid-80s of the last century. After working for a number of independent training firms, he went on to teaching semester-long courses in spreadsheet and database management software at Golden Gate University in San Francisco.

His love of teaching has translated into an equal love of writing. *For Dummies* books are, of course, his all-time favorites to write because they enable him to write to his favorite audience, the beginner. They also enable him to use humor (a key element to success in the training room) and, most delightful of all, to express an opinion or two about the subject matter at hand.

Dedication

To Kelly — a best friend, sorely missed . . . Semper Fidelis.

Author's Acknowledgments

I am always so grateful to the many people who work so hard to bring my book projects into being, and this one is no exception. If anything, I am even more thankful for their talents, given the size and complexity of an All-in-One.

This time, special thanks are in order to Andy Cummings and Katie Feltman for giving me this opportunity to write and write and write about Excel in this great All-in-One format. Next, I want to express great thanks to my project editor, Beth Taylor, and, to my partner in crime, Christopher Aiken (I really appreciate all your encouragement on this one). Thanks also go to Gabrielle Sempf for the great technical edit, Adrienne Martinez for coordinating the book's production, and everybody at Wiley Publishing.

Publisher's Acknowledgments

We're proud of this book; please send us your comments through our online registration form located at www.dummies.com/register/.

Some of the people who helped bring this book to market include the following:

Acquisitions, Editorial, and Media Development

Project Editor: Beth Taylor

Senior Acquisitions Editor: Katie Feltman

Copy Editor: Beth Taylor

Technical Editor: Gabrielle Sempf

Editorial Manager: Jodi Jensen

Media Development Manager: Laura Carpenter

VanWinkle

Editorial Assistant: Amanda Foxworth

Cartoons: Rich Tennant (<u>www.the5thwave.com</u>)

Composition Services

Project Coordinator: Adrienne Martinez

Layout and Graphics: Claudia Bell, Stephanie D. Jumper, Barbara Moore, Barry Offringa, Heather Ryan, Rashell Smith, Ronald Terry

Proofreaders: Laura L. Bowman, Jessica Kramer, Christine Pingleton

Indexer: Julie Kawabata

Anniversary Logo Design: Richard Pacifico

Publishing and Editorial for Technology Dummies

Richard Swadley, Vice President and Executive Group Publisher

Andy Cummings, Vice President and Publisher

Mary Bednarek, Executive Acquisitions Director

Mary C. Corder, Editorial Director

Publishing for Consumer Dummies

Diane Graves Steele, Vice President and Publisher

Joyce Pepple, Acquisitions Director

Composition Services

Gerry Fahey, Vice President of Production Services

Debbie Stailey, Director of Composition Services

Contents

Title

Introduction

About This Book

Foolish Assumptions

How This Book Is Organized

Conventions Used in This Book

Icons Used in This Book

Where to Go from Here

Book I : Excel Basics

Chapter 1: The Excel 2007 User Experience

Meet Excel's Ribbon User Interface

Launching and Quitting Excel

Migrating to Excel 2007 from Earlier Versions

Chapter 2: Getting Help, Tips, and Updates

Browsing Excel 2007 Help

Using the Table of Contents

Searching Office Online for Help

Using Microsoft Update Service

<u>Using the Microsoft Office Diagnostics</u>

Chapter 3: Customizing Excel

Tailoring the Quick Access Toolbar to Your Tastes

Exercising Your Options

Add-In Mania

Book II: Worksheet Design

<u>Chapter 1: Building Worksheets</u>
<u>Designer Spreadsheets</u>
It Takes All Kinds (Of Cell Entries)
Data Entry 101
Saving the Data
Document Recovery to the Rescue
<u>Chapter 2: Formatting Worksheets</u>
Making Cell Selections
Adjusting Columns and Rows
Formatting Ranges as Tables with Table Styles
Formatting Cells from the Home Tab
Formatting the Cell Selection with the Mini Toolbar
<u>Using the Format Cells Dialog Box</u>
<u>Hiring Out the Format Painter</u>
<u>Using Cell Styles</u>
Conditional Formatting
Chapter 3: Editing and Proofing Worksheets
<u>Opening a Workbook</u>
Cell Editing 101
A Spreadsheet with a View
Copying and Moving Stuff Around
Find and Replace This Disgrace!

<u>Spell Checking Heaven</u>

Looking Up and Translating Stuff

<u>Circling Invalid Data</u>

Eliminating Errors with Text to Speech

Chapter 4: Managing Worksheets

Reorganizing the Worksheet

Reorganizing the Workbook

Working with Multiple Workbooks

Consolidating Worksheets

Chapter 5: Printing Worksheets

Selecting the Printer to Use

Previewing the Printout

Quick Printing the Worksheet

Printing the Worksheet from the Print Dialog Box

Working with the Page Setup Options

Headers and Footers

Solving Page Break Problems

<u>Printing the Formulas in a Report</u>

Book III: Formulas and Functions

Chapter 1: Building Basic Formulas

Formulas 101

Copying Formulas

Adding Array Formulas

Ranges Names in Formulas

Adding Linking Formulas

Controlling Formula Recalculation

Circular References

Chapter 2: Logical Functions and Error Trapping

Understanding Error Values

<u>Using Logical Functions</u>

Error-Trapping Formulas

Formula Auditing

Removing Errors from the Printout

Chapter 3: Date and Time Formulas

<u>Understanding Dates and Times</u>

<u>Using Date Functions</u>

Using Time Functions

Chapter 4: Financial Formulas

Financial Functions 101

Chapter 5: Math and Statistical Formulas

Math & Trig Functions

Statistical Functions

Chapter 6: Lookup, Information, and Text Formulas

Lookup and Reference

Information, Please . . .

Much Ado about Text

Book IV: Worksheet Collaboration and Review

Chapter 1: Protecting Workbooks and Worksheet Data

Password-Protecting the File

Protecting the Spreadsheet

Chapter 2: Linking Workbooks with Hyperlinks

Hyperlinks 101

Using the HYPERLINK Function

Chapter 3: Sending Workbooks Out for Review

Preparing a Workbook

Workbook Sharing 101

Workbooks on Review

Chapter 4: Sharing Worksheets and Worksheet Data

Office 2007 Data Sharing Basics

<u>Using Smart Tags</u>

Saving Workbooks in Other Usable File Formats

Publishing Workbooks to Shared Spaces

Book V: Charts and Graphics

Chapter 1: Charting Worksheet Data

Worksheet Charting 101

<u>Selecting the Perfect Chart Type</u>

Printing Charts

Chapter 2: Adding Graphic Objects

Graphic Objects 101

Importing Graphics

Drawing Graphics

Using Themes

Book VI: Data Management

Chapter 1: Building and Maintaining Data Lists

Data List Basics

Sorting Data

Subtotaling Data

Chapter 2: Filtering and Querying a Data List

Data List Filtering 101

<u>Filtering Data</u>

<u>Using the Database Functions</u>

External Data Query

Book VII: Data Analysis

Chapter 1: Performing What-If Scenarios

<u>Using Data Tables</u>

Exploring Different Scenarios

Hide and Goal Seeking

Using the Solver

Chapter 2: Generating Pivot Tables

Creating Pivot Tables

Formatting a Pivot Table

Sorting and Filtering the Pivot Table Data

Modifying the Pivot Table

Creating Pivot Charts

Book VIII: Excel and VBA

Chapter 1: Building and Running Macros

Macro Basics

Macro Security

Assigning Macros to the Quick Access Toolbar

Chapter 2: VBA Programming

<u>Using the Visual Basic Editor</u>

<u>Creating Custom Excel Functions</u>

Appendix: Using XML File Formats

Introduction

The Excel 2007 All-in-One Desk Reference For Dummies brings together plain and simple information on using all aspects of the latest and greatest version of Microsoft Excel. It's designed to be of help no matter how much or how little experience you have with the program. As the preeminent spreadsheet and data analysis software for the personal computer, Excel offers its users seemingly unlimited capabilities too often masked in technical jargon and obscured by explanations only a software engineer could love. On top of that, many of the publications that purport to give you the lowdown on using Excel are quite clear on how to use particular features without giving you a clue as to why you would go to all the trouble.

The truth is that understanding how to use the abundance of features offered by Excel is only half the battle, at best. The other half of the battle is to understand how these features can benefit you in your work, in other words, "what's in it for you." I have endeavored to cover both the "how to" and "so what" aspects in all my discussions of Excel features, being as clear as possible and using as little tech-speak as possible.

Fortunately, Excel is well worth the effort to get to know because it's definitely one of the best data processing productivity tools that has ever come along. Its all new Ribbon user interface, Live Preview feature, and tons of ready-made galleries make this version of the program the easiest to use ever. In short, Excel 2007 is a blast to use when you know what you're doing, and my great hope is that this "fun" aspect of using the program comes through on every page (or, at least, every other page).

About This Book

As the name states, *Excel 2007 All-in-One Desk Reference For Dummies* is a reference (whether you keep it on your desk or use it to prop up your desk is your business). This means that although the chapters in each book are laid out in a logical order, each stands on its own, ready for you to dig into the information at any point.

As much as possible, I have endeavored to make the topics within each chapter stand on their own. When there's just no way around relying on some information that's discussed elsewhere, I include a cross-reference that gives you the chapter and verse (actually the book and chapter) for where you can find that related information if you're of a mind to.

Use the full Table of Contents and Index to look up the topic of the hour and find out exactly where it is in this compilation of Excel information. You'll find that although most topics are introduced in a conversational

manner, I don't waste much time cutting to the chase by laying down the main principles at work (usually in bulleted form) followed by the hard reality of how you do the deed (as numbered steps).

Foolish Assumptions

I'm only going to make one foolish assumption about you and that is that you have some need to use Microsoft Excel in your work or studies. If pushed, I further guess that you aren't particularly interested in knowing Excel at an expert level but are terribly motivated to find out how to do the stuff you need to get done. If that's the case, then this is definitely the book for you. Fortunately, even if you happen to be one of those newcomers who's highly motivated to become the company's resident spreadsheet guru, you've still come to the right place.

As far as your hardware and software go, I'm assuming that you already have Excel 2007 (usually as part of Microsoft Office 2007) installed on your computer, using a standard installation running under either Windows Vista or Windows XP. Although most of the figures in this book all show Excel 2007 happily running on Windows Vista, you will see the occasional figure showing Excel running on Windows XP in the rare cases (as when opening and saving files) where it does make a difference as to which operating system you're using.



This book is intended *only* for users of Microsoft Office Excel 2007! Because of the deep and significant changes to the user interface in Excel 2007, if you're using any previous version of Excel for Windows (from Excel 97 through 2003), the information in this book will only confuse and confound you, as your version of Excel works nothing like the 2007 version this book describes.

So, please put this book down slowly and instead pick up a copy of *Excel 2003 All-in-One Desk Reference For Dummies*, published by Wiley Publishing.

How This Book Is Organized

Excel 2007 All-in-One Desk Reference For Dummies is actually eight smaller books rolled into one. That way, you can go after the stuff in the particular book that really interests you at the time, putting all the rest of the material aside until you need to have a look at it. Each book in the volume consists of two or more chapters consisting of all the basic information you should need in dealing with that particular component or aspect of Excel.

In case you're the least bit curious, here's the lowdown on each of the eight books and what you can expect to find there.

Book I: Excel Basics

This book is for those of you who've never had a formal introduction to the program's basic workings. Chapter 1 covers all the orientation material including how to deal with the program's new Ribbon user interface. Of special interest may be the section on migrating to Excel 2007 from earlier versions of Excel: This section is intended to ease users who have some experience with earlier versions of Excel (97 through 2003) through the initial meeting and the first moments of getting used to Excel's new way of doing business.

Chapter 2 is your place to go to find out how to get online help in Excel. Believe it or not, after you have the All-in-One basics down, some of the online help topics actually start making sense!

Chapter 3 is not to be missed, even by those of you who do not consider yourselves beginners by any stretch of the imagination. This chapter covers the many ways to customize Excel and make the program truly your own. It includes information on customizing the Quick Access toolbar as well as great information on how to use and procure add-in programs that can greatly extend Excel's considerable features.

Book II: Worksheet Design

Book II focuses on the crucial issue of designing spreadsheets in Excel. Chapter 1 takes up the call on how to do basic design and covers all the many ways of doing data entry (a subject that's been made all the more exciting with the addition of voice and handwriting input).

Chapter 2 covers how to make your spreadsheet look professional and read the way you want it through formatting. Excel offers you a wide choice of formatting techniques, from the very simple formatting as a table all the way to the now very sophisticated and super-easy conditional formatting.

Chapter 3 takes up the vital subject of how to edit an existing spreadsheet without disturbing its design or contents. Editing can be intimidating to the new spreadsheet user because most spreadsheets not only contain data entries that you don't want to mess up but formulas that can go haywire if you make the wrong move.

Chapter 4 looks at the topic of managing the worksheets that contain the spreadsheet applications that you build in Excel. It opens the possibility of going beyond the two-dimensional worksheet with its innumerable columns and rows by organizing data three-dimensionally through the use of multiple worksheets (each Excel file already contains three blank worksheets to which you can add

more). This chapter also shows you how to work with and organize multiple worksheets given the limited screen real estate afforded by your monitor and how to combine data from different files and sheets when needed.

Chapter 5 is all about printing your spreadsheets, a topic that ranks only second in importance to knowing how to get the data into a worksheet in the first place. As you expect, you find out not only how to get the raw data to spit out of your printer but also how to gussy it up and make it into a professional report of which anyone would be proud.

Book III: Formulas and Functions

This book is all about calculations and building the formulas that do them. Chapter 1 covers formula basics from doing the simplest addition to building array formulas and using Excel's built-in functions courtesy of the Function Wizard. It also covers how to use different types of cell references when making formula copies and how to link formulas that span different worksheets.

Chapter 2 takes up the subject of preventing formula errors from occurring, and, barring that, how to track them down and eliminate them from the spreadsheet. This chapter also includes information on circular references in formulas and how you can sometimes use them to your advantage.

Chapters 3 through 6 concentrate on how to use different types of built-in functions. Chapter 3 covers the use of date and time functions, not only so you know what day and time it is, but actually put this knowledge to good use in formulas that calculate elapsed time. Chapter 4 takes up the financial functions in Excel and shows you how you can use them to both reveal and determine the monetary health of your business. Chapter 5 is concerned with math and statistical functions (of which there are plenty). Chapter 6 introduces you to the powerful group of lookup, information, and text functions. Here, you find out how to build formulas that

automate data entry by returning values from a lookup table, get the lowdown on any cell in the worksheet, and combine your favorite pieces of text.

Book IV: Worksheet Collaboration and Review

Book IV looks at the ways you can share your spreadsheet data with others. Chapter 1 covers the important issue of security in your spreadsheets. Here, you find out how you can protect your data so that only those to whom you give permission can open or make changes to their contents.

Chapter 2 takes up the subject of building and using hyperlinks in your Excel spreadsheets (the same kind of links that you know and love on Web pages on the World Wide Web). This chapter covers how to create hyperlinks for moving from worksheet to worksheet within the same Excel file as well as for opening other documents on your hard disk, or logging onto the Internet and browsing to a favorite Web page.

Chapter 3 introduces Excel's sophisticated features for sending out spreadsheets and having a team of people review and make comments on them. It also covers techniques for reviewing and reconciling the suggested changes.

Chapter 4 is concerned with sharing spreadsheet data with other programs that you use. It looks specifically at how you can share data with other Office 2007 programs such as Microsoft Word, PowerPoint, and Outlook. This chapter also discusses the role of Smart Tags in enabling you to automatically bring information into your