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# Step by Step

Microsoft®  
**Office Access® 2007**

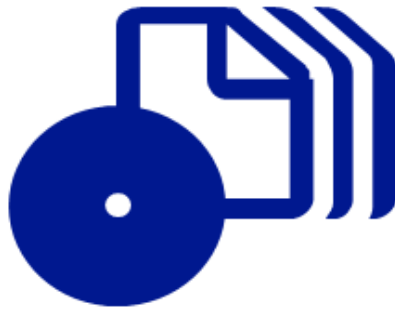
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Learn at the *pace you* want.

*Steve Lambert, M. Dow Lambert III,  
and Joan Preppernau*

- 
- Skill-building practice files
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# How to access your CD files



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# Contents

<b>About the Authors</b> .....	<b>ix</b>
<b>Introducing Access 2007</b> .....	<b>xi</b>
New Features .....	.xi
Let's Get Started! .....	.xiv
<b>Information for Readers Running Windows XP</b> .....	<b>xv</b>
Managing the Practice Files .....	.xv
Using the Start Menu .....	.xvi
Navigating Dialog Boxes .....	.xvii
<b>The Microsoft Business Certification Program</b> .....	<b>xix</b>
Selecting a Certification Path .....	.xx
Becoming a Microsoft Certified Application Specialist—Microsoft Office Access 2007 .....	.xx
Taking a Microsoft Business Certification Exam .....	.xxi
More Information .....	.xxii
<b>Features and Conventions of This Book</b> .....	<b>xxiii</b>
<b>Using the Companion CD</b> .....	<b>xxv</b>
What's on the CD? .....	.xxv
Minimum System Requirements .....	.xxviii
Installing the Practice Files .....	.xxix
Adding the Practice File Folder to the Trusted Locations List .....	.xxx
Using the Practice Files .....	.xxxi
Removing and Uninstalling the Practice Files .....	.xxxii

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Getting Help .....	xxxiii
Errata & Book Support .....	.xxxiii
Getting Help with Access 2007 .....	.xxxiii
More Information .....	.xxxvii
We Want to Hear from You .....	.xxxvii
Stay in Touch .....	.xxxvii
Quick Reference .....	xxxix
<b>1 Exploring Access 2007</b>	<b>1</b>
Working in Access 2007 .....	2
Understanding Database Concepts .....	9
Opening an Existing Database .....	11
Sidebar: Enabling Macros and Other Database Content .....	12
Exploring Tables .....	14
Exploring Queries .....	20
Exploring Forms .....	23
Exploring Reports .....	27
Exploring Other Access Objects .....	30
Macros .....	30
Modules .....	30
Previewing and Printing Access Objects .....	31
Key Points .....	35
<b>2 Creating a Database</b>	<b>37</b>
Creating a Database from a Template .....	38
Creating a Table Manually .....	41
Sidebar: Attaching Files to Database Records .....	46
Creating a Table from a Template .....	46
Manipulating Table Columns and Rows .....	48
Key Points .....	51
<b>3 Populating a Database</b>	<b>53</b>
Importing Information from Another Access Database .....	54
Sidebar: Migrating a Database from a Previous Version of Access .....	57
Importing Information from an Excel Worksheet .....	57
Sidebar: Linking to Information .....	60
Importing or Linking to a SharePoint List .....	60

Collecting Data Through E-Mail . . . . .	64
Importing Information from a Text File . . . . .	65
Sidebar: Importing Information from Other Sources . . . . .	68
Importing Information from an XML File . . . . .	68
Importing Information from an HTML File . . . . .	71
Importing Information from an Outlook Folder . . . . .	74
Importing Information from a dBASE File . . . . .	76
Key Points . . . . .	77
<b>4 Sharing and Reusing Information</b>	<b>79</b>
Exporting Information to Another Access Database . . . . .	80
Exporting Information to Excel . . . . .	82
Exporting Information to a SharePoint List . . . . .	84
Exporting Information to Word . . . . .	87
Sidebar: Exporting Information to PDF and XPS Files . . . . .	89
Exporting Information to a Text File . . . . .	90
Exporting Information to an XML File . . . . .	93
Exporting Information to an HTML File . . . . .	94
Copying Information to Other Office Programs . . . . .	97
Key Points . . . . .	101
<b>5 Simplifying Data Entry by Using Forms</b>	<b>103</b>
Creating a Form by Using the Form Tool . . . . .	104
Sidebar: Relationships . . . . .	107
Refining Form Properties . . . . .	108
Changing the Arrangement of a Form . . . . .	114
Adding Controls to a Form . . . . .	119
Entering Data in a Form by Using VBA . . . . .	124
Creating a Form by Using an AutoForm . . . . .	129
Sidebar: Adding Charts to Forms and Reports . . . . .	131
Sidebar: Simultaneously Creating Forms and Subforms . . . . .	132
Adding a Subform to a Form . . . . .	133
Key Points . . . . .	140

<b>6</b>	<b>Locating Specific Information</b>	<b>143</b>
	Sorting Information in a Table . . . . .	144
	Sidebar: How Access Sorts . . . . .	145
	Filtering Information in a Table . . . . .	148
	Sidebar: Wildcards . . . . .	148
	Sidebar: Expressions . . . . .	152
	Filtering Information by Using a Form . . . . .	153
	Locating Information That Matches Multiple Criteria . . . . .	156
	Creating a Query Manually . . . . .	160
	Sidebar: Filters and Sorts vs. Queries . . . . .	162
	Sidebar: Joining Fields in a Query . . . . .	164
	Sidebar: Expression Builder . . . . .	170
	Creating a Query by Using a Wizard . . . . .	170
	Performing Calculations by Using a Query . . . . .	174
	Key Points . . . . .	177
<b>7</b>	<b>Keeping Your Information Accurate</b>	<b>179</b>
	Restricting the Type of Data in a Field . . . . .	180
	Restricting the Amount of Data in a Field . . . . .	184
	Specifying the Format of Data in a Field . . . . .	186
	Restricting Data by Using Validation Rules . . . . .	191
	Creating a Simple Lookup List . . . . .	194
	Creating a Multi-Column Lookup List . . . . .	198
	Updating Information in a Table . . . . .	202
	Deleting Information from a Table . . . . .	206
	Preventing Database Problems . . . . .	210
	Key Points . . . . .	217
<b>8</b>	<b>Working with Reports</b>	<b>219</b>
	Sidebar: Forms vs. Reports . . . . .	220
	Creating a Report by Using a Wizard . . . . .	221
	Modifying Report Design . . . . .	227
	Creating a Report Manually . . . . .	233
	Modifying Report Content . . . . .	237
	Adding a Subreport to a Report . . . . .	239
	Previewing and Printing a Report . . . . .	247
	Key Points . . . . .	249



<b>9</b>	<b>Making Your Database Easy to Use</b>	<b>251</b>
	Creating a Switchboard .....	252
	Creating Custom Categories .....	259
	Controlling the Features Available to Database Users .....	262
	Making Favorite Access Commands Quickly Available .....	267
	Key Points .....	271
<b>10</b>	<b>Securing and Sharing Information</b>	<b>273</b>
	Assigning a Password to a Database .....	274
	Sidebar: Creating a Secure Password .....	274
	Sidebar: Database Encrypting .....	275
	Preventing Changes to Database Code .....	277
	Securing a Database for Distribution .....	281
	Sidebar: Splitting a Database for Distribution .....	282
	Sidebar: Collaborating Through SharePoint .....	283
	Key Points .....	284
	<b>Glossary</b> .....	<b>285</b>
	<b>Index</b> .....	<b>291</b>

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## The Team

Without the support of the hard-working members of the OTSI publishing team, this book would not exist. Susie Bayers and Marlene Lambert guided the editorial process, and Robert (RJ) Cadranell guided the production process. Lisa Van Every laid out the book using Adobe InDesign, and Jeanne Craver processed the graphics. Jaime Odell proofread the book, and Jan Bednarczuk created its index. Another important member of our team, Microsoft Press Series Editor Sandra Haynes, provided invaluable support throughout the writing and production processes.

## Online Training Solutions, Inc. (OTSI)

OTSI specializes in the design, creation, and production of Office and Windows training products for information workers and home computer users. For more information about OTSI, visit

*[www.otsi.com](http://www.otsi.com)*

# Introducing Access 2007

Microsoft Office Access 2007 is a powerful relational database application that includes hundreds of tools that allow you to quickly start tracking, sharing, and reporting information, even if you are new to database development. Users have access to a large library of professionally designed application templates, wizards that automatically create tables, forms, queries, and reports, and extensive local and online help resources.

Access supports sharing data with other sources, including other programs in the 2007 Microsoft Office system, Microsoft SQL Server, Microsoft SharePoint Products and Services, and documents in XML, HTML, XPS, and PDF formats. Advanced features allow you to create sophisticated executable database applications for use by employees and customers to gather and view data without their needing to know anything at all about database design or development.

This book gives you straightforward instructions for using Access to create databases. It takes you from knowing little or nothing about Access—or, for that matter, about databases—to a level of expertise that will enable you to create complex databases for use by one person or by many people.

## New Features

There's no question that Microsoft Office Access has been extensively reworked and improved with this version. The new Microsoft Office Fluent user interface, designed to make the features you need easily available when you need them, is an obvious indicator. But beyond the appearance and navigation, Access 2007 also has a lot of new and improved features that really do make this a superior program to its predecessors. Because there are so many changes in this version, we don't identify new features with a special margin icon (as we did in previous versions of this book). We do, however, list them here. Throughout this book, we include complete coverage of features that are new in Access 2007, including the benefits of the feature, how to use it, and any potential problems you might encounter.

If you're upgrading to Access 2007 from a previous version, you're probably more interested in the differences between the old and new versions and how they will affect you than you are in the basic functionality of Access. To help you identify the entire scope of change from the version of Access you're familiar with, we've listed here the new features introduced in Access 2002 and Access 2003, as well as in Access 2007.

## If You Are Upgrading from Access 2003

Access 2007 has a long list of new and improved features that make it easier than ever to create databases to track, share, manage, and audit information. To locate information about a specific feature, see the index at the back of this book:

- **The Ribbon.** This feature of the Office Fluent user interface organizes the most common commands for any database object into tabs and groups so that the appropriate commands are immediately accessible for the current object.
- **Quick Access Toolbar.** You can customize a portion of this toolbar, displayed above or below the Ribbon, to include commands you regularly use, regardless of which Ribbon tab or database object is currently active.
- **Navigation Pane.** The customizable Navigation Pane replaces the Database window from Access 2003. You can display or hide all tables, queries, forms, reports, macros, and modules, or create a custom group to display only the objects that you select. You can hide the Navigation Pane to make more room on the screen for your database object.
- **View toolbar.** This context-sensitive toolbar located in the lower-right corner of the program window provides single-click switching among supported views of the current database object, including Datasheet view, Design view, PivotTable view, PivotChart view, Form view, and Layout view.
- **Database object display options.** Choose from Tabbed Documents, in which you can quickly switch between multiple database objects by clicking tabs at the top of the database window, and Overlapping windows that you can arrange individually on the screen.
- **Template library.** Quickly locate and download professionally designed templates for common database projects.
- **Improved sorting and filtering.** Easily sort all records in a table based on one or more fields, or filter a table or form to display or not display records matching multiple criteria.
- **Layout view.** Redesign a form or report while viewing it.
- **Stacked and Tabular layouts.** Group controls in a form or report layout so you can easily manipulate the entire group as one unit.
- **Automatic calendar.** The date/time data type includes an optional calendar control. Click the calendar, and select the date you want.
- **Rich Text.** Memo fields now support most common formatting options, including fonts, color, and character formatting. The formatting is stored with the database.

- **Create tab.** Quickly create a new table, form, query, report, macro, SharePoint list, or other Access object.
- **Totals function.** Add a totals row to a query, and select from a list of formulas to automatically calculate aggregate values for forms and reports.
- **Field List pane.** Drag and drop fields from one or more related or unrelated tables onto your active table.
- **Attachment data type.** Attach photos and other files to a database record.
- **Embedded macros.** Macros embedded in a form or report offer a higher level of security in database applications.
- **Microsoft Access Help system.** Easily search built-in and online end-user and developer support content from within Access.
- **Share information.** Easily import and export data between Access and other Microsoft Office applications, or XML, HTML, PDF, and dBase files; collect information through e-mail surveys in Microsoft Office Outlook and automatically update your database with the responses; create or link a database with a SharePoint list; publish your database to a SharePoint library and allow users to update and extract information.
- **Improved report design.** Quickly create a professional-looking report, complete with logo, header, and footer. Use Report view, combined with filters, to browse only selected records in the report.
- **Group, Sort, and Total pane.** This feature makes it much easier to group and sort data in reports, and add totals from a drop-down list.
- **Enhanced security.** Adding password protection to a database now causes Access to automatically encrypt the database when it closes, and decrypt it when it opens.

## If You Are Upgrading from Access 2002

In addition to the features listed in the previous section, if you're upgrading from Access 2002 (part of the Microsoft Office XP program suite), you'll find the following:

- **Smart Tags.** Track types of data, such as dates, names, and addresses, which can be used in multiple ways.
- **Transform.** Transform script to data when you import or export it.
- **Support for Windows Theming.** Change your display theme.
- **Property Update Options.** Quickly update input mask options.
- **Automatic Error Checking.** Identify and correct errors in forms and reports.
- **Back Up Database.** Quickly back up your database with the click of a button.

## If You Are Upgrading from Access 2000

In addition to the features listed in the previous sections, if you're upgrading from Access 2000, you'll find the following:

- **Speech recognition.** Give commands and dictate text.
- **Data Access Page Designer.** Efficiently design data access pages.
- **Save as data access pages.** Save existing forms and reports as pages that can be viewed over the Web.
- **Conversion error logging.** Log errors when converting Access 95, Access 97, and Access 2000 databases to Access 2002 file format.
- **Multiple undo and redo.** Undo or redo several actions instead of just the last one.
- **PivotTables and PivotCharts.** Analyze data by creating dynamic views of data.
- **XML input and output.** Import XML data and publish Access data to the Web by exporting it in XML format.
- **Stored Procedure Designer.** Create simple SQL Server stored procedures.
- **Batch updating.** Save updates to records on a local computer, and send them to the server all at once.
- **Script language support.** Set preferences for complex script languages, including the reading direction.

## Let's Get Started!

There are so many new and improved features to this already feature-rich program that there are bound to be some exciting discoveries for even the most advanced users. If you are new to Access, you will find many automated features that let you painlessly create databases and add queries, forms, and professional-looking reports to track and share your data. We look forward to showing you around Microsoft Office Access 2007.



# Information for Readers Running Windows XP

The graphics and the operating system–related instructions in this book reflect the Windows Vista user interface. However, Windows Vista is not required; you can also use a computer running Windows XP.

Most of the differences you will encounter when working through the exercises in this book on a computer running Windows XP center around appearance rather than functionality. For example, the Windows Vista Start button is round rather than rectangular and is labeled with the Windows Vista logo rather than the word *Start*; window frames and window-management buttons look different; and if your system supports Windows Aero, the window frames might be transparent.

In this section, we provide steps for navigating to or through menus and dialog boxes in Windows XP that differ from those provided in the exercises in this book. For the most part, these differences are small enough that you will have no difficulty in completing the exercises.

## Managing the Practice Files

The instructions given in the “Using the Companion CD” section are specific to Windows Vista. The only differences when installing, using, uninstalling, and removing the practice files supplied on the companion CD are the default installation location and the uninstall process.

On a computer running Windows Vista, the default installation location of the practice files is *Documents\Microsoft Press\Access2007SBS*. On a computer running Windows XP, the default installation location is *My Documents\Microsoft Press\Access2007SBS*. If your computer is running Windows XP, whenever an exercise tells you to navigate to your *Documents* folder, you should instead go to your *My Documents* folder.

To uninstall the practice files from a computer running Windows XP:

1. On the Windows taskbar, click the **Start** button, and then click **Control Panel**.
2. In **Control Panel**, click (or in Classic view, double-click) **Add or Remove Programs**.

3. In the **Add or Remove Programs** window, click **Microsoft Office Access 2007 Step by Step**, and then click **Remove**.
4. In the **Add or Remove Programs** message box asking you to confirm the deletion, click **Yes**.

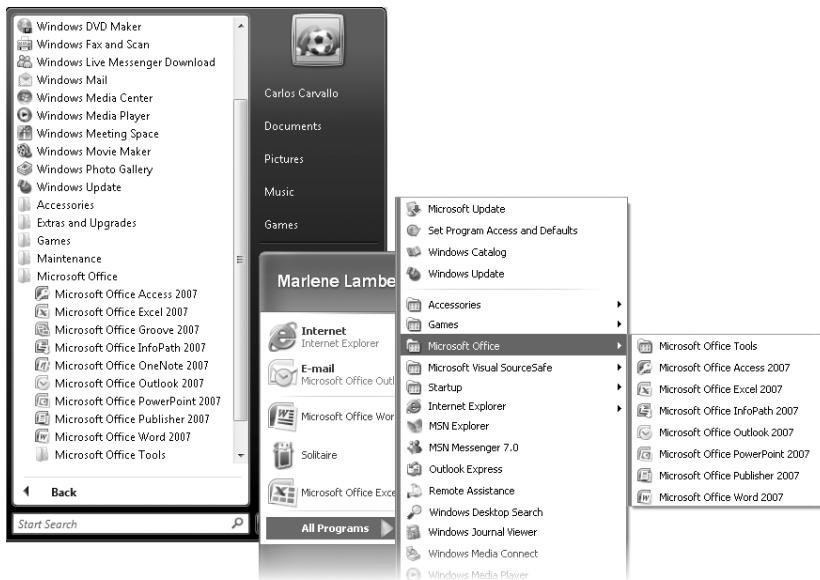
**Important** If you need help installing or uninstalling the practice files, please see the "Getting Help" section later in this book. Microsoft Product Support Services does not provide support for this book or its companion CD.

## Using the Start Menu

To start Access 2007 on a computer running Windows XP:

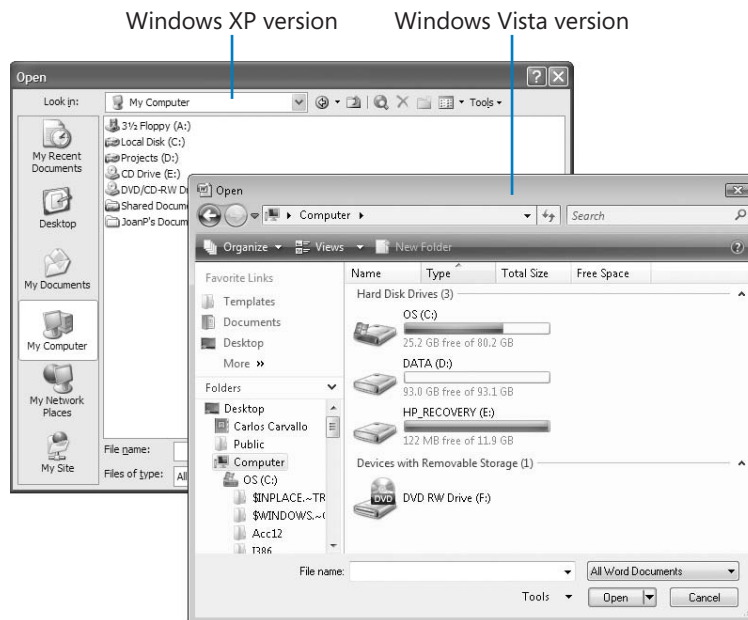
- Click the **Start** button, point to **All Programs**, click **Microsoft Office**, and then click **Microsoft Office Access 2007**.

Folders on the Windows Vista Start menu expand vertically. Folders on the Windows XP Start menu expand horizontally. You will notice this variation between the images shown in this book and your Start menu.



## Navigating Dialog Boxes

On a computer running Windows XP, some of the dialog boxes you will work with in the exercises not only look different from the graphics shown in this book but also work differently. These dialog boxes are primarily those that act as an interface between Access and the operating system, including any dialog box in which you navigate to a specific location. For example, here are the Open dialog boxes from Access 2007 running on Windows Vista and Windows XP and some examples of ways to navigate in them.



To navigate to the *Exploring* folder in Windows Vista:

- ➔ In the **Favorite Links** pane, click **Documents**. Then in the folder content pane, double-click *Microsoft Press*, *Access2007SBS*, and then *Exploring*.

To move back to the *Access2007SBS* folder in Windows Vista:

- ➔ In the upper-left corner of the dialog box, click the **Back** button.



Back

To navigate to the *Exploring* folder in Windows XP:

- ➔ On the **Places** bar, click **My Documents**. Then in the folder content pane, double-click *Microsoft Press*, *Access2007SBS*, and then *Exploring*.

To move back to the *Access2007SBS* folder in Windows XP:

- ➔ On the toolbar, click the **Up One Level** button.



Up One Level



# The Microsoft Business Certification Program

Desktop computing proficiency is becoming increasingly important in today's business world. As a result, when screening, hiring, and training employees, more employers are relying on the objectivity and consistency of technology certification to ensure the competence of their workforce. As an employee or job seeker, you can use technology certification to prove that you already have the skills you need to succeed, saving current and future employers the trouble and expense of training you.

The Microsoft Business Certification program is designed to assist employees in validating their Windows Vista skills and 2007 Microsoft Office program skills. There are two paths to certification:

- A Microsoft Certified Application Specialist (MCAS) is an individual who has demonstrated worldwide skill standards for Windows Vista or the 2007 Microsoft Office suite through a certification exam in Windows Vista or in one or more of the 2007 Microsoft Office programs, including Microsoft Office Word 2007, Microsoft Office Excel 2007, Microsoft Office PowerPoint 2007, Microsoft Office Outlook 2007, and Microsoft Office Access 2007.
- A Microsoft Certified Application Professional (MCAP) is an individual who has taken his or her knowledge of the 2007 Microsoft Office suite and of Microsoft SharePoint products and technologies to the next level and has demonstrated through a certification exam that he or she can use the collaborative power of the Office suite to accomplish job functions such as Budget Analysis and Forecasting, or Content Management and Collaboration.

After attaining certification, you can include the MCAS or MCAP logo with the appropriate certification designator on your business cards and other personal promotional materials. This logo attests to the fact that you are proficient in the applications or cross-application skills necessary to achieve the certification.

## Selecting a Certification Path

When selecting the Microsoft Business Certification path that you would like to pursue, you should assess the following:

- The program and program version(s) with which you are familiar
- The length of time you have used the program
- Whether you have had formal or informal training in the use of that program

Candidates for MCAS-level certification are expected to successfully complete a wide range of standard business tasks, such as formatting a document or spreadsheet. Successful candidates generally have six or more months of experience with Windows Vista or the specific Office program, including either formal, instructor-led training or self-study using MCAS-approved books, guides, or interactive computer-based materials.

Candidates for MCAP-level certification are expected to successfully complete more complex, business-oriented tasks utilizing advanced functionality with the combined 2007 Microsoft Office suite of products. Successful candidates generally have between six months and one or more years of experience with the programs, including formal, instructor-led training or self-study using MCAP-approved materials.

## Becoming a Microsoft Certified Application Specialist—Microsoft Office Access 2007

Every MCAS and MCAP certification exam is developed from a set of exam skill standards that are derived from studies of how Windows Vista and the 2007 Office programs are used in the workplace. Because these skill standards dictate the scope of each exam, they provide you with critical information on how to prepare for certification.

To become certified as a Microsoft Certified Application Specialist for Microsoft Office Access 2007, you must demonstrate proficiency in these six areas:

- **Structuring a database.** You must demonstrate the ability to define the appropriate tables, fields, and data types for a database; create, modify, and print table relationships; set, change, and remove primary keys; and split a database.
- **Creating and formatting database elements.** You must demonstrate the ability to create a database from scratch and from a template; create, modify, rename, summarize, and delete tables; create and modify fields and field properties; create and modify various types of forms and reports.

- **Entering and modifying data.** You must demonstrate the ability to enter, edit, delete, and move among records; find and replace data; attach documents to records; and import data or link to external data.
- **Creating and modifying queries.** You must demonstrate the ability to create various types of queries based on one table or multiple tables; add tables to and remove tables from queries; add criteria, joins, calculated fields, and aliases; and create sum, average, min, max, and count queries.
- **Presenting and sharing data.** You must demonstrate the ability to sort and filter data in tables, queries, reports, and forms; create and modify charts; export data from tables and queries; save database objects as other file types; and print database objects.
- **Managing and maintaining databases.** You must demonstrate the ability to back up, compact, and repair a database; encrypt a database by using a password; set database options and properties; identify object dependencies; print database information; and reset or refresh table links.

## Taking a Microsoft Business Certification Exam

The MCAS and MCAP certification exams for Windows Vista and the 2007 Office programs are performance-based and require you to complete business-related tasks by using an interactive simulation (a digital model) of the Windows Vista operating system of one or more of the programs in the Office suite.

### Test-Taking Tips

- Follow all instructions provided in each question completely and accurately.
- Enter requested information as it appears in the instructions, but without duplicating the formatting unless you are specifically instructed to do otherwise. For example, the text and values you are asked to enter might appear in the instructions in bold and underlined (for example, **text**), but you should enter the information without applying these formats.
- Close all dialog boxes before proceeding to the next exam question, unless you are specifically instructed to do otherwise.
- Don't close task panes before proceeding to the next exam question unless, you are specifically instructed to do otherwise.
- If you are asked to print a document, spreadsheet, chart, report, or slide, perform the task, but be aware that nothing will actually be printed.

- Don't worry about extra keystrokes or mouse clicks. Your work is scored based on its result, not on the method you use to achieve that result (unless a specific method is indicated in the instructions), and not on the time you take to complete the question.
- If your computer becomes unstable during the exam (for example, if the exam does not respond or the mouse no longer functions) or if a power outage occurs, contact a testing center administrator immediately. The administrator will restart the computer and return the exam to the point where the interruption occurred with your score intact.

## Certification

At the conclusion of the exam, you will receive a score report, which you can print with the assistance of the testing center administrator. If your score meets or exceeds the passing standard (the minimum required score), you will be mailed a printed certificate within approximately 14 days.

## More Information

To learn more about the Microsoft Certified Application Specialist exams and courseware, visit

*[www.microsoft.com/learning/mcp/mcas/](http://www.microsoft.com/learning/mcp/mcas/)*

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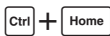




# Features and Conventions of This Book

This book has been designed to lead you step by step through all the tasks you are most likely to want to perform in Microsoft Office Access 2007. If you start at the beginning and work your way through all the exercises, you will gain enough proficiency to be able to manage complex databases through Access. However, each topic is self contained. If you have worked with a previous version of Access, or if you completed all the exercises and later need help remembering how to perform a procedure, the following features of this book will help you locate specific information:

- **Detailed table of contents.** A listing of the topics and sidebars within each chapter.
- **Chapter thumb tabs.** Easily locate the beginning of the chapter you want.
- **Topic-specific running heads.** Within a chapter, quickly locate the topic you want by looking at the running head of odd-numbered pages.
- **Quick Reference.** General instructions for each procedure covered in specific detail elsewhere in the book. Refresh your memory about a task while working with your own documents.
- **Detailed index.** Look up specific tasks and features and general concepts in the index, which has been carefully crafted with the reader in mind.
- **Companion CD.** Contains the practice files needed for the step-by-step exercises, as well as a fully searchable electronic version of this book and other useful resources.

In addition, we provide a glossary of terms for those times when you need to look up the meaning of a word or the definition of a concept.

You can save time when you use this book by understanding how the *Step by Step* series shows special instructions, keys to press, buttons to click, and so on.

Convention	Meaning
	This icon at the end of a chapter introduction indicates information about the practice files provided on the companion CD for use in the chapter.
<b>USE</b>	This paragraph preceding a step-by-step exercise indicates the practice files that you will use when working through the exercise.
<b>BE SURE TO</b>	This paragraph preceding or following an exercise indicates any requirements you should attend to before beginning the exercise or actions you should take to restore your system after completing the exercise.
<b>OPEN</b>	This paragraph preceding a step-by-step exercise indicates files that you should open before beginning the exercise.
<b>CLOSE</b>	This paragraph following a step-by-step exercise provides instructions for closing open files or programs before moving on to another topic.
<b>1</b> <b>2</b>	Blue numbered steps guide you through step-by-step exercises and Quick Reference versions of procedures.
1 2	Black numbered steps guide you through procedures in sidebars and expository text.
<b>→</b>	An arrow indicates a procedure that has only one step.
<b>See Also</b>	These paragraphs direct you to more information about a given topic in this book or elsewhere.
<b>Troubleshooting</b>	These paragraphs explain how to fix a common problem that might prevent you from continuing with an exercise.
<b>Tip</b>	These paragraphs provide a helpful hint or shortcut that makes working through a task easier, or information about other available options.
<b>Important</b>	These paragraphs point out information that you need to know to complete a procedure.
 Save	The first time you are told to click a button in an exercise, a picture of the button appears in the left margin. If the name of the button does not appear on the button itself, the name appears under the picture.
	In step-by-step exercises, keys you must press appear as they would on a keyboard.
	A plus sign (+) between two key names means that you must hold down the first key while you press the second key. For example, “press  +  ” means “hold down the  key while you press the  key.”
<b>Program interface elements</b>	In steps, the names of program elements, such as buttons, commands, and dialog boxes, are shown in black bold characters.
<b>User input</b>	Anything you are supposed to type appears in blue bold characters.
<b>Glossary terms</b>	Terms that are explained in the glossary at the end of the book are shown in blue italic characters.

# Using the Companion CD

The companion CD included with this book contains the practice files you'll use as you work through the book's exercises, as well as other electronic resources that will help you learn how to use Microsoft Office Access 2007.

## What's on the CD?

The following table lists the practice files supplied on the companion CD.

<b>Chapter</b>	<b>Files</b>
Chapter 1: Exploring Access 2007	<i>Exploring/Working.accdb</i> <i>Exploring/Opening.accdb</i> <i>Exploring/Tables.accdb</i> <i>Exploring/Queries.accdb</i> <i>Exploring/Forms.accdb</i> <i>Exploring/Reports.accdb</i> <i>Exploring/Print.accdb</i>
Chapter 2: Creating a Database	<i>Creating/TableTemplate.accdb</i> <i>Creating/Manipulating.accdb</i>
Chapter 3: Populating a Database	<i>Populating/ImportAccess.accdb</i> <i>Populating/Products.accdb</i> <i>Populating/Customers.xlsx</i> <i>Populating/ImportExcel.accdb</i> <i>Populating/Employees.txt</i> <i>Populating/ImportText.accdb</i> <i>Populating/ImportXML.accdb</i> <i>Populating/OrderDetails.xml</i> <i>Populating/OrderDetails.xsd</i> <i>Populating/Orders.xml</i> <i>Populating/ImportHTML.accdb</i> <i>Populating/NewCust.html</i> <i>Populating/ImportDbase.accdb</i> <i>Populating/Ship.dbf</i>

<b>Chapter</b>	<b>Files</b>
Chapter 4: Sharing and Reusing Information	<i>Sharing/ExportAccess.accdb</i> <i>Sharing/Exported.accdb</i> <i>Sharing/ExportExcel.accdb</i> <i>Sharing/ExportWord.accdb</i> <i>Sharing/ExportText.accdb</i> <i>Sharing/ExportXML.accdb</i> <i>Sharing/ExportHTML.accdb</i> <i>Sharing/CopyOffice.accdb</i>
Chapter 5: Simplifying Data Entry by Using Forms	<i>Simplifying/CreateFormTool.accdb</i> <i>Simplifying/RefineProperties.accdb</i> <i>Simplifying/RefineLayout.accdb</i> <i>Simplifying/AddControls.accdb</i> <i>Simplifying/CustomersFormLogo.jpg</i> <i>Simplifying/VBA.accdb</i> <i>Simplifying/AftUpdate.txt</i> <i>Simplifying/CreateWizard.accdb</i> <i>Simplifying/AddSubform.accdb</i>
Chapter 6: Locating Specific Information	<i>Locating/SortTable.accdb</i> <i>Locating/FilterTable.accdb</i> <i>Locating/FilterForm.accdb</i> <i>Locating/MultipleCriteria.accdb</i> <i>Locating/QueryDesign.accdb</i> <i>Locating/QueryWizard.accdb</i> <i>Locating/Calculate.accdb</i>
Chapter 7: Keeping Your Information Accurate	<i>Accuracy/FieldTest.accdb</i> <i>Accuracy/Size.accdb</i> <i>Accuracy/Accurate.accdb</i> <i>Accuracy/Validate.accdb</i> <i>Accuracy/SimpleLookup.accdb</i> <i>Accuracy/MulticolumnLookup.accdb</i> <i>Accuracy/Update.accdb</i> <i>Accuracy/Delete.accdb</i> <i>Accuracy/Prevent.accdb</i>

<b>Chapter</b>	<b>Files</b>
Chapter 8: Working with Reports	<i>Reports/Wizard.accdb</i> <i>Reports/ModifyDesign.accdb</i> <i>Reports/Manually.accdb</i> <i>Reports/ModifyContent.accdb</i> <i>Reports/AddSubreport.accdb</i> <i>Reports/Printing.accdb</i>
Chapter 9: Making Your Database Easy to Use	<i>Easy/Switchboard.accdb</i> <i>Easy/CustomCategory.accdb</i> <i>Easy/Features.accdb</i> <i>Easy/Icon.ico</i>
Chapter 10: Securing and Sharing Information	<i>Securing/Password.accdb</i> <i>Securing/Prevent.accdb</i> <i>Securing/Distribute.accdb</i>

In addition to the practice files, the CD contains some exciting resources that will really enhance your ability to get the most out of using this book and Access 2007, including the following:

- *Microsoft Office Access 2007 Step by Step* in eBook format
- *Microsoft Computer Dictionary, Fifth Edition*
- Sample chapter and poster from *Look Both Ways: Help Protect Your Family on the Internet* (Linda Criddle, 2007)

**Important** The companion CD for this book does not contain the Access 2007 software. You should purchase and install that program before using this book.

# Minimum System Requirements

## 2007 Microsoft Office System

The 2007 Microsoft Office system includes the following programs:

- Microsoft Office Access 2007
- Microsoft Office Communicator 2007
- Microsoft Office Excel 2007
- Microsoft Office Groove 2007
- Microsoft Office InfoPath 2007
- Microsoft Office OneNote 2007
- Microsoft Office Outlook 2007
- Microsoft Office Outlook 2007 with Business Contact Manager
- Microsoft Office PowerPoint 2007
- Microsoft Office Publisher 2007
- Microsoft Office Word 2007

No single edition of the 2007 Office system installs all of the above programs. Specialty programs available separately include Microsoft Office Project 2007, Microsoft Office SharePoint Designer 2007, and Microsoft Office Visio 2007.

To install and run these programs, your computer needs to meet the following minimum requirements:

- 500 megahertz (MHz) processor
- 256 megabytes (MB) RAM
- CD or DVD drive
- 2 gigabytes (GB) available hard disk space; a portion of this disk space will be freed if you select the option to delete the installation files

**Tip** Hard disk requirements will vary depending on configuration; custom installation choices might require more or less hard disk space.

- Monitor with 800×600 screen resolution; 1024×768 or higher recommended
- Keyboard and mouse or compatible pointing device

- Internet connection, 128 kilobits per second (Kbps) or greater, for download and activation of products, accessing Microsoft Office Online and online Help topics, and any other Internet-dependent processes
- Windows Vista with Service Pack 1 (SP1) or later, Microsoft Windows XP with Service Pack 2 (SP2), or Microsoft Windows Server 2003 or later
- Windows Internet Explorer 7 or Microsoft Internet Explorer 6 with service packs

The 2007 Microsoft Office suites, including Office Basic 2007, Office Home & Student 2007, Office Standard 2007, Office Small Business 2007, Office Professional 2007, Office Ultimate 2007, Office Professional Plus 2007, and Office Enterprise 2007, all have similar requirements.

## Step-by-Step Exercises

In addition to the hardware, software, and connections required to run the 2007 Microsoft Office system, you will need the following to successfully complete the exercises in this book:

- Access 2007, Excel 2007, and Outlook 2007
- Access to a printer
- 52 MB of available hard disk space for the practice files

## Installing the Practice Files

You need to install the practice files in the correct location on your hard disk drive before you can use them in the exercises. Follow the steps below.

**Note** If for any reason you are unable to install the practice files from the CD, the files can also be downloaded from the Web at <http://www.microsoftpressstore.com/title/9780735623033>.

1. Remove the companion CD from the envelope at the back of the book, and insert it into the CD drive of your computer. If the **AutoPlay** window opens, click **Run startcd.exe**.

The Microsoft Software License Terms appear. To use the practice files, you must accept the terms of the license agreement.

2. Click **I accept the agreement**, and then click **Next**.

After you accept the license agreement, the CD interface appears.

**Important** If the menu screen does not appear, click the Start button, and then click Computer. Display the Folders list in the Navigation Pane, click the icon for your CD drive, and then in the right pane, double-click the StartCD executable file.

3. Click **Practice Files**. If the **File Download** and/or **Internet Explorer Security** dialog boxes open, click **Run**.
4. On the **Welcome** page of the InstallShield Wizard, click **Next**. On the **License Agreement** page, click **I accept the terms in the license agreement**, and then click **Next**. Click **Next** on the first screen, and then click **Next** to accept the terms of the license agreement on the next screen.
5. If you want to install the practice files to a location other than the default folder (*Documents\Microsoft Press\Access2007SBS*), click the **Change** button, select the new drive and path, and then click **OK**.

**Important** If you install the practice files to a location other than the default, you will need to substitute that path within the exercises.

6. On the **Custom Setup** page, click **Next**, and then on the **Ready to Install the Program** screen, click **Install**.
7. After the practice files have been installed, click **Finish**.
8. Close the **Step by Step Companion CD** window.
9. Remove the companion CD from the CD drive, and return it to the envelope at the back of the book.

## Adding the Practice File Folder to the Trusted Locations List

The databases provided as practice files for this book contain macros. You can enable the macros in all the practice databases by adding the practice file folder to the list of Trusted Locations for Access 2007.

Follow these steps:

1. Click the **Microsoft Office Button**, and then click **Access Options**.
2. On the **Trust Center** page of the **Access Options** dialog box, click **Trust Center Settings**.
3. On the **Trusted Locations** page of the **Trust Center** dialog box, click **Add new location**.
4. In the **Microsoft Office Trusted Location** dialog box, click **Browse**.




5. In the **Browse** dialog box, browse to your *Documents\Microsoft Press\Access2007SBS* folder, and then click **OK**.
6. In the **Microsoft Office Trusted Location** dialog box, select the **Subfolders of this location are also trusted** check box, and then click **OK** in each of the open dialog boxes.

If you prefer to not do this, you can enable macros in an individual database by clicking **Options** in the **Security Warning** area that appears at the top of the content pane. In the **Microsoft Office Security Options** dialog box, selecting the **Enable This Content** option, and then clicking **OK**.

**See Also** For more information about the **Access 2007 Trust Center macro settings**, see the sidebar “**Enabling Macros and Other Database Content**” in **Chapter 1, “Exploring Access 2007.”**

## Using the Practice Files

When you install the practice files from the companion CD that accompanies this book, the files are stored on your hard disk in chapter-specific subfolders under *Documents\Microsoft Press\Access2007SBS*. Each exercise is preceded by a paragraph that lists the files needed for that exercise and explains any preparations needed before you start working through the exercise. Here are examples:

 **USE** the *Opening* database. This practice file is located in the *Microsoft Press\Access2007SBS\Exploring* folder.

**BE SURE TO** start your computer, but don't start Access before starting this exercise.

You can browse to the practice files in Windows Explorer by following these steps:



1. On the Windows taskbar, click the **Start** button, and then click **Documents**.
2. In your *Documents* folder, double-click *Microsoft Press*, double-click *Access2007SBS*, and then double-click a specific chapter folder.

You can browse to the practice files from an Access 2007 dialog box by following these steps:

1. On the **Favorite Links** pane in the dialog box, click **Documents**.
2. In your *Documents* folder, double-click *Microsoft Press*, double-click *Access2007SBS*, and then double-click the specified chapter folder.

## Removing and Uninstalling the Practice Files

After you finish working through this book, delete the practice messages, appointments, contacts, and other Outlook items you created while working through the exercises, and then uninstall the practice files that were installed from the companion CD. Follow these steps:



Start

1. On the Windows taskbar, click the **Start** button, and then click **Control Panel**.
2. In **Control Panel**, under **Programs**, click the **Uninstall a program** task.
3. In the **Programs and Features** window, click **Microsoft Office Access 2007 Step by Step**, and then on the toolbar at the top of the window, click the **Uninstall** button.
4. If the **Programs and Features** message box asking you to confirm the deletion appears, click **Yes**.

**See Also** If you need additional help installing or uninstalling the practice files, see “Getting Help” later in this book.

**Important** Microsoft Product Support Services does not provide support for this book or its companion CD.

**Tip** You can also view the practice files by selecting Browse on the CD menu.

# Getting Help

Every effort has been made to ensure the accuracy of this book and the contents of its companion CD. If you do run into problems, please contact the sources listed below for assistance.

## Errata & Book Support

If you find an error, please report it on our Microsoft Press site:

1. Go to [www.microsoftpressstore.com](http://www.microsoftpressstore.com).
2. In the Search box, enter the book's ISBN or title.
3. Select your book from the search results.
4. On your book's catalog page, find the Errata & Updates tab.
5. Click View/Submit Errata.

If you need additional support, please e-mail Microsoft Press Book Support at [mspinput@microsoft.com](mailto:mspinput@microsoft.com).

## Getting Help with Access 2007

If your question is about Microsoft Office Access 2007, and not about the content of this Microsoft Press book, your first recourse is the Access Help system. This system is a combination of tools and files stored on your computer when you installed the 2007 Microsoft Office system and, if your computer is connected to the Internet, information available from Microsoft Office Online. There are several ways to find general or specific Help information:

- To find out about an item on the screen, you can display a **ScreenTip**. For example, to display a ScreenTip for a button, point to the button without clicking it. The ScreenTip gives the button's name, the associated keyboard shortcut if there is one, and unless you specify otherwise, a description of what the button does when you click it.
- In the Access program window, you can click the Microsoft Office Access Help button (a question mark in a blue circle) at the right end of the Ribbon to display the Access Help window.

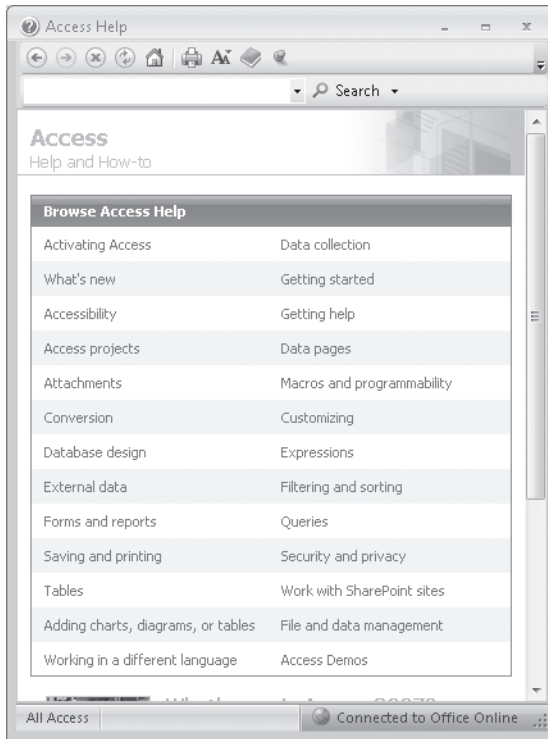
- After opening a dialog box, you can click the Help button (also a question mark) at the right end of the dialog box title bar to display the Access Help window with topics related to the functions of that dialog box already identified.

To practice getting help, you can work through the following exercise.

➔ **BE SURE TO** start Access before beginning this exercise.



1. At the right end of the Ribbon, click the **Microsoft Office Access Help** button. The Access Help window opens.



2. In the list of topics in the **Access Help** window, click **Activating Access**. Access Help displays a list of topics related to activating Microsoft Office system programs. You can click any topic to display the corresponding information.

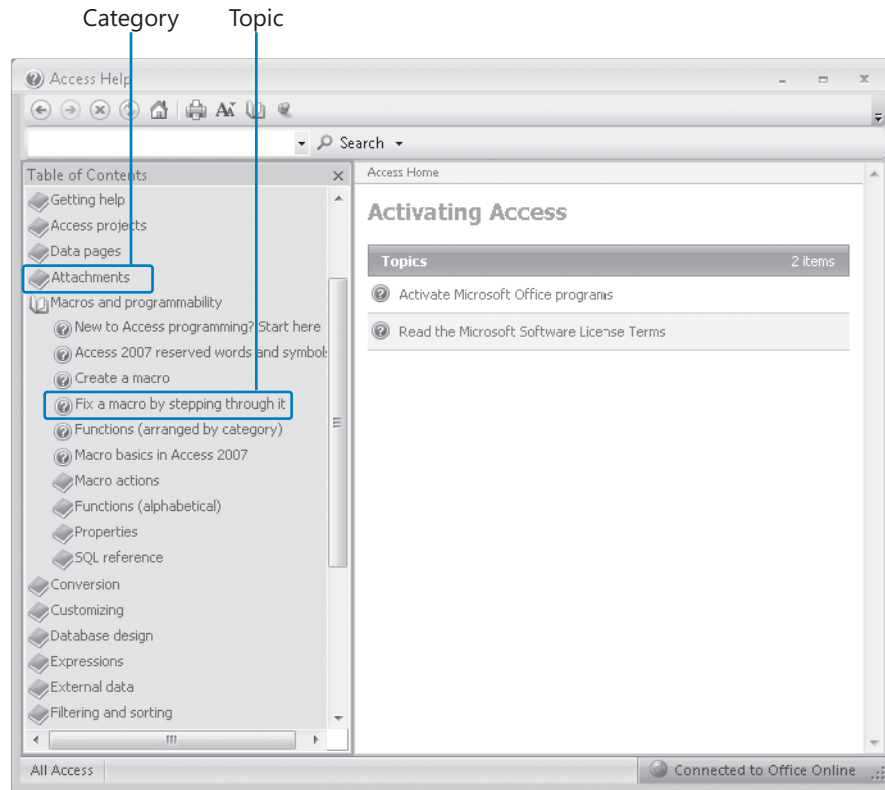


Show Table of Contents

3. On the toolbar, click the **Show Table of Contents** button.

The Table Of Contents appears in the left pane, organized by category, like the table of contents in a book.

Clicking any category (represented by a book icon) displays that category's topics (represented by help icons).



If you're connected to the Internet, Access displays categories, topics, and training available from the Office Online Web site as well as those stored on your computer.



Back



Forward

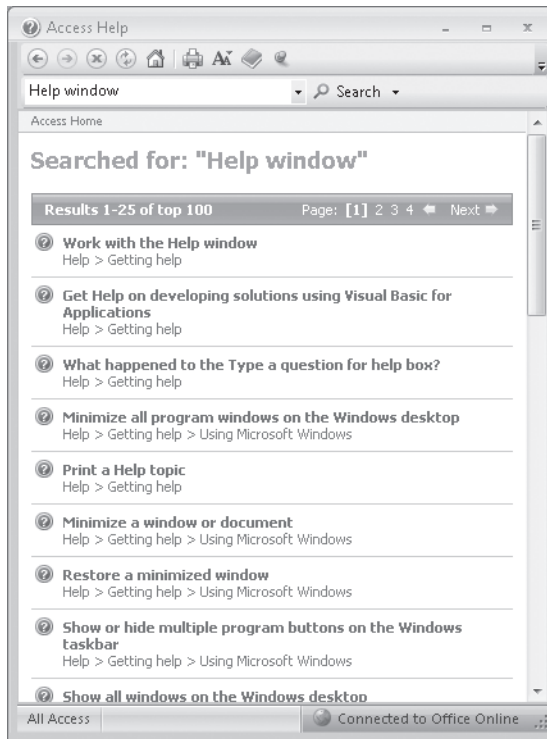
4. In the **Table of Contents**, click a few categories and topics, then click the **Back** and **Forward** buttons to move among the topics you have already viewed.



Close

5. At the right end of the **Table of Contents** title bar, click the **Close** button.
6. At the top of the **Access Help** window, click the **Type word to search for** box, type **Help window**, and then press the  key.

The Access Help window displays topics related to the words you typed.



7. In the results list, click **Print a Help topic**.

The selected topic appears in the Access Help window, explaining that you can click the Print button on the toolbar to print any topic.

8. Below the title at the top of the topic, click **Show All**.

Access displays any hidden auxiliary information available in the topic and changes the Show All button to Hide All. You can display or hide an individual item by clicking it. When you click the Print button, Access will print all displayed information.



**CLOSE** the Access Help window.

## More Information

If your question is about Microsoft Office Access 2007 or another Microsoft software product and you cannot find the answer in the product's Help system, please search the appropriate product solution center or the Microsoft Knowledge Base at:

*[support.microsoft.com](http://support.microsoft.com)*

In the United States, Microsoft software product support issues not covered by the Microsoft Knowledge Base are addressed by Microsoft Product Support Services. Location-specific software support options are available from:

*[support.microsoft.com/gp/selfoverview/](http://support.microsoft.com/gp/selfoverview/)*

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The survey is short, and we read every one of your comments and ideas. Thanks in advance for your input!

## Stay in Touch

Let's keep the conversation going! We're on Twitter: *<http://twitter.com/MicrosoftPress>*





# Quick Reference

## 1 Exploring Access 2007

### To open a table

- In the **Navigation Pane**, expand the **Tables** category, and then double-click the table you want to open.

### To access additional datasheet formatting options

- In Datasheet view, on the **Home** tab, click the **Font** Dialog Box Launcher.

### To hide the Ribbon

- Double-click the active tab.

### To display the Ribbon when it is hidden

- Click any tab.

### To unhide the Ribbon

- Double-click the active tab.

### To enable macros in the current database

1. In the **Security Warning** area, click **Options**.
2. In the **Microsoft Office Security Options** dialog box, select the **Enable this content** option, and then click **OK**.

### To add the publisher of a digitally signed database to the Trusted Publishers list

1. In the **Security Warning** area, click **Options**.
2. In the **Microsoft Office Security Options** dialog box, select the **Trust all documents from this publisher** option, and then click **OK**.

### To add the location of this database to the Trusted Locations list

1. In the **Microsoft Office Security Options** dialog box, click **Open the Trust Center**.
2. In the page list in the left pane of the **Trust Center**, click **Trusted Locations**.
3. On the **Trusted Locations** page, click **Add new location**.
4. In the **Microsoft Office Trusted Location** dialog box, click **Browse**.
5. In the **Browse** dialog box, browse to the folder containing the current database, and then click **OK**.

6. In the **Microsoft Office Trusted Location** dialog box, select the **Subfolders of this location are also trusted** check box if you want to do so, and then click **OK** in each of the open dialog boxes.

### To change the way Access handles macros in all databases

1. Click the **Microsoft Office Button**, and then click **Access Options**.
2. On the **Trust Center** page of the **Access Options** dialog box, click **Trust Center Settings**.
3. On the **Macro Settings** page of the **Trust Center**, select the option for the way you want Access to handle macros:
  - **Disable all macros without notification.** If a database contains macros, Access disables them and doesn't display the security warning to give you the option of enabling them.
  - **Disable all macros with notification.** Access disables all macros and displays the security warning.
  - **Disable all macros except digitally signed macros.** Access automatically enables digitally signed macros.
  - **Enable all macros.** Access enables all macros.
4. Click **OK** in the **Trust Center** and in the **Access Options** dialog box.

### To open an existing database

1. On the **Start** menu, point to **All Programs**, click **Microsoft Office**, and then click **Microsoft Office Access 2007**.
2. In the **Open Recent Database** list, click **More**, navigate to the folder in which the database is stored, and then double-click the database.

### To close a database

- Click the **Microsoft Office Button**, and then click **Close Database**.

### To view records in a table subdatasheet

- Click the **Expand** button at the left end of the record.

### To hide records in a subdatasheet

- Click the **Collapse** button at the left end of the record.

### To close a document window

- Click the **Close Window** button at the right end of the document tab.

### To move through a table one record at a time

- On the record navigation bar, click the **Next Record** button.

**To move to a specific record on a datasheet**

- On the record navigation bar, select the current record number, type the number of the record you want, and then press .

**To switch from Datasheet View to Design View**

- On the **View** toolbar, click the **Design View** button.

**To view the properties of a query**

- In the **Navigation Pane**, right-click the query, and then click **Object Properties**.

**To process (or run) a query**

- In the **Navigation Pane**, right-click the query name, and then click **Open**.

**To move through records in a form**

- On the record navigation bar, click the **Next Record** to move forward and the **Previous Record** button to move backward.

**To view a form in Design view when you are currently in Form view**

- On the **Home** tab, in the **Views** group, click the **View** button.

**To preview a report**

1. In the **Navigation Pane**, right-click the report, and then click **Print Preview**.
2. Click the report to display a larger view.

**To view a table in Print Preview**

- Click the **Microsoft Office Button**, point to **Print**, and then click **Print Preview**.

**To change the page orientation of a table before printing**

- On the **Print Preview** tab, in the **Page Layout** group, click the **Portrait** button or the **Landscape** button.

**To close Print Preview**

- On the **Print Preview** tab, click the **Close Print Preview** button.

## 2 Creating a Database

**To open a template and save it as a new database**

1. On the **Getting Started with Microsoft Office Access** page, in the **Template Categories** list, click a category.
2. Click the template icon for the template you want to open.
3. In the **File Name** box, type a new name for the database, and note the default path.
4. Click the **Create** button.

### To open a new blank database

1. Start Access. On the **Getting Started** page, click **Blank Database**.
2. In the **File Name** box, type the name for the database.
3. Click the **Browse for a location** button, browse to the folder where you want to save the database, click **OK**, and then click **Create**.

### To enter information in a database

→ Click in an empty cell, type your text, and then press  to move to the next cell.

### To change a field name

→ Double-click the field name, and then type the new name.

### To change the data type of a field

→ In Design view, click in the data type cell you want to change, click the arrow that is displayed, and then click the data type you want to use.

### To change the size of a field

1. In Design view, click the field name.
2. In the **Field Properties** area, select the current field size, and then enter the new field size.

### To close and save a table or other database object

→ Click the **Close** button to close the table, and then click **Yes** to save changes.

### To rename a table or other database object

1. Close the table. In the Navigation Pane, right-click the table, and then click **Rename**.
2. Type a new name for the table, and then press **Enter**.

### To delete a table or other database object

1. Close the table. In the Navigation Pane, right-click the table, and then click **Delete**.
2. In the confirmation dialog box that appears, click **Yes**.


### To create a table by using a template

→ On the **Create** tab, in the **Tables** group, click the **Table Templates** button, and then click the type of template you want to create.

### To copy a table structure to a new table

1. Right-click the existing table in the Navigation Pane, and then click **Copy**.
2. On the **Home** tab, in the **Clipboard** group, click the **Paste** button.
3. In the **Paste Table As** dialog box, supply a unique name for the table, click **Structure Only**, and then click **OK**.

### To add a new field name to a table and assign it a data type

1. Click in the first blank **Field Name** cell below the existing field names, type the field name, and then press .
2. Click the **Data Type** arrow for the new field, and then click the data type that you want assigned to the field.

### To delete a table row while in Design view

- Right-click in the row you want to delete, and then click **Delete Rows**.

### To edit a field name

- Select the part of the field name you want to edit, and then type the new information.

### To change the size of a table column

1. With the table in **Datasheet View**, drag the vertical bar at the right edge of a column header to the left or right until the column is the size you want.
2. To size a column to the minimum width that will display all the text in that field in all records, point to the vertical bar on the right of the column header, and when the pointer changes to a double-headed arrow, double-click.

### To change the height of all rows in a table

- With the table in **Datasheet View**, on the left side of the datasheet, drag the horizontal bar between any two record selectors up or down until the rows are the height you want.

### To reset all rows in a table to standard height

1. With the table in **Datasheet View**, on the **Home** tab, in the **Records** group, click **More**, and then click **Row Height** to display the **Row Height** dialog box.
2. In the **Row Height** dialog box, select the **Standard Height** check box or type in the height you want in the **Row Height** box, and then click **OK**.

### To hide and unhide columns

1. Click anywhere in the column you want to hide, and in the **Records** group, click **More**. Then click **Hide Columns**.
2. To restore the hidden column, click **More** again, and then click **Unhide Columns** to display the **Unhide Columns** dialog box.
3. In the **Unhide Columns** dialog box, select the check box of the column you want to unhide, and then click **Close**.

### To freeze and unfreeze columns

1. Drag through the column header of the column or columns you want to freeze.
2. With the columns selected, click the **More** button, and then click **Freeze**.
3. To restore the columns to their normal condition, click **More**, and then click **Unfreeze**.

## 3 Populating a Database

### To import tables from one Access database into another

1. Open the database that you want to import to.
2. On the **External Data** tab, in the **Import** group, click the **Access** button to open the **Get External Data** wizard, and then on the **Select the source and destination of the data** page, click **Browse**.
3. In the **File Open** dialog box, navigate to the database you want to use, click it, and then click **Open**.
4. On the **Select the source and destination of the data** page, with the **Import tables, queries, forms, reports, macros, and modules into the current database** option selected, click **OK**.
5. In the **Import Objects** dialog box, on the **Tables** tab, click **Select All** to select all the tables, or select only the tables you want to import, and then click **OK** to import any tables you selected.

### To migrate a database from an earlier version of Access

1. Open the database, click the **Microsoft Office Button**, point to the **Save As** arrow, and then click **Access 2007 Database**.
2. In the **Save As** dialog box specify a name and location for the database, and click **Save**.

### To import information from an Excel worksheet into an existing table in an Access database

1. On the **External Data** tab, in the **Import** group, click the **Excel** button.
2. In the **Get External Data** wizard, on the **Select the source and destination of the data** page, click **Browse**.
3. In the **File Open** dialog box, navigate to the workbook you want to use, and then click **Open**.
4. On the **Select the source and destination of the data** page, select the **Append a copy of the records to the table** option, click the arrow and select the table you want to use in the list, and then click **OK**.
5. In the **Import Spreadsheet** wizard, ensure your worksheet or range is selected, and then click **Next**.
6. If appropriate, select the **First Row Contains Column Headings** check box, click **Next**, and then click **Finish** to import the file.

### To import a SharePoint list from a collaboration site

1. Locate the SharePoint site that contains the list you want to import, and make a note of the site address.
2. On the SharePoint site, identify the lists you want to copy to the database, and then decide whether you want the entire list or just a particular view.

3. Review the columns in the source list or view, and identify the database into which you want to import the lists.
4. On the **External Data** tab, in the **Import** group, click the **SharePoint List** button.
5. On the **Select the source and destination of the data** page, under **Specify a SharePoint site**, click the address of the site you want to connect to, or type it in the box.
6. Select the **Import the source data** or **Link to the data source** option, and click **Next**. Then, if prompted to do so, enter your site credentials.
7. In the **Import** column, select the check box of each list you want to import into the database.
8. In the **Items to Import** column, for each of the selected lists, select the view that you want to import into the database.
9. With the **Import display values instead of IDS for fields that look up values stored in another list** check box selected, click **OK**.
10. If you want to save the import parameters for reuse, select the **Save Import Steps** check box. On the **Save Import Steps** page, enter a name and description for the specification, and then click **Save Import**.

#### To create an e-mail survey form, and then send the e-mail survey

1. Create a database table containing the fields you want to include in your survey. Position the insertion point in the first empty record.
2. On the **External Data** tab, in the **Collect Data** group, click the **Create E-mail** button.
3. Follow the steps in the **Collect Data Through E-mail Messages** wizard to create the form, add and reorder the fields from the table, change field labels, specify the Outlook folder to which the survey results will be delivered, elect to have Outlook automatically add replies to the original Access database table, and specify the survey recipients.
4. Customize the text of the e-mail message that will be created, and then on the **Create the e-mail message** page, click **Create**. Make any changes you want to the message, address it to the survey recipients, and then send it.

#### To import information from a comma-delimited text file

1. On the **External Data** tab, in the **Import** group, click the **Text File** button.
2. In the **Get External Data** wizard, on the **Select the source and destination of the data** page, click the **Browse** button, navigate to the location of the text file, click the file, and then click **Open**.
3. Select the **Append a copy of the records to the table** option, and in the list, click the text file you want to use. Then click **OK**.
4. In the **Import Text** wizard, click **Next**.
5. Select or clear the check boxes you want, click **Next**, and click **Finish** to import the text file into the table. Then on the **Save Import Steps** page, click **Close**.

### To import information from an XML file

1. On the **External Data** tab, in the **Import** group, click the **XML File** button.
2. On the **Select the source and destination of the data** page of the **Get External Data** wizard, click the **Browse** button, and in the **File Open** dialog box, navigate to the location of the file, click the one you want to use, and then click **Open**.
3. On the **Select the source and destination of the data** page, click **OK**.
4. In the **Import XML** dialog box, select the **Structure and Data** import option, and click **OK**. Then on the **Save Import Steps** page, click **Close**.

### To import information from an HTML file into an existing table

1. On the **External Data** tab, in the **Import** group, click the **More** button, and then in the list, click **HTML Document**.
2. On the **Select the source and destination of the data** page of the **Get External Data** wizard, click the **Browse** button, navigate to the file you want to use, click the file, and then click **Open**.
3. Select the **Append a copy of the records to the table** option, click the file in the list that you want to use, and then click **OK**.
4. In the **Import HTML** wizard, select the **First Row Contains Column Headings** check box, and then click **Finish**.
5. On the **Save Import Steps** page, click **Close**.

### To import information from an Outlook folder into a new table in an Access database

1. On the **External Data** tab, in the **Import** group, in the **More** list, click **Outlook Folder**.
2. In the **Get External Data** wizard, with the **Import the source data into a new table in the current database** option selected, click **OK**.
3. Expand your primary mailbox folder, click the folder you want to import, and then click **Next**.
4. On the **Field Options** page, click on fields you don't want to import, select the **Do not import field (Skip)** check box, and then click **Next**.
5. On the **Primary Key** page, decide whether you want to create your own key, let Access create the key, or have no key, and click **Next**. Then click **Finish** to import the contents of the folder. On the **Save Import Steps** page, click **Close**.

### To import information from a dBASE file into an existing table in an Access database

1. On the **External Data** tab, in the **Import** group, in the **More** list, click **dBase File**.
2. On the **Select the source and destination of the data** page of the **Get External Data** wizard, navigate to the file you want to use, click the file, and then click **Open**.



3. Select the **Import the source data into a new table in the current database** option, and then click **OK**. On the **Save Import Steps** page, click **Close**.

#### To save an import operation for reuse

- Select the **Save Import Steps** check box, and then click **Save Import**.

#### To run a saved import operation

- Click the **Saved Imports** button in the **Import** group on the **External Data** tab, click the import you want to run, and then click **Run**.

## 4 Sharing and Reusing Information

#### To export a table from one Access database to another

1. In the **Navigation Pane**, under **Tables**, select the table you would like to export.
2. On the **External Data** tab, in the **Export** group, click the **More** button, and then in the list, click **Access Database**.
3. In the **Export – Access Database** wizard, click the **Browse** button. In the **File Save** dialog box, navigate to the folder you want to export to, click it, and then click **Save**.
4. In the **Export – Access Database** wizard, click **OK**. In the **Export** dialog box, select the options you want, and then click **OK**.
5. In the **Export** dialog box, with the name of the exported table showing in the **Export to:** box, and **Definition and Data** selected under **Export Tables**, click **OK**.
6. On the **Save Export Steps** page, click **Close**.

#### To export a table from a database to an Excel workbook

1. Open the table in Datasheet view. Then on the **External Data** tab, in the **Export** group, click the **Export to Excel spreadsheet** button.
2. In the **Export – Excel Spreadsheet** wizard, click the **Browse** button. Then in the **File Save** dialog box, navigate to the folder you want to save the table in, and click **Save**.
3. In the **Export – Excel Spreadsheet** wizard, select the **Export data with formatting and layout** check box. Then select the **Open the destination file after the export operation is complete** check box.
4. With **Excel Workbook** selected in the **File format** list, click **OK**. On the **Save Export Steps** page, click **Close**.

#### To export the contents of a table to a SharePoint site

1. In the **Navigation Pane**, select (but don't open) the object you want to export.
2. On the **External Data** tab, in the **Export** group, click the **SharePoint List** button.
3. In the **Export – SharePoint Site** wizard, specify the SharePoint site where you want to create the list, change the list name and type a description if you want, and then click **OK**. Enter your SharePoint site credentials if prompted to do so.

### To export a form from a database to an RTF document in Word

1. In the **Navigation Pane**, under **Forms**, double-click the form you want to export.
2. On the **External Data** tab, in the **Export** group, click the **Word** button.
3. In the **Export – RTF File** wizard, click **Browse**. In the **File Save** dialog box, navigate to the folder you want to save the form in, and then click **Save**.
4. In the **Export – RTF File** wizard, select the **Open the destination file after the export operation is complete** check box, and then click **OK**.

### To export a table to a text file with formatting

1. Open the table in Datasheet view. Then on the **External Data** tab, in the **Export** group, click the **Text File** button.
2. In the **Export – Text File** wizard, click **Browse**. In the **File Save** dialog box, navigate to the folder in which you want to save the file, and then click **Save**.
3. In the **Export – Text File** wizard, select the **Export data with formatting and layout** check box. Then select the **Open the destination file after the export operation is complete** check box, and click **OK**.
4. In the **Encode As** dialog box, select the options you want, and then click **OK**.

### To export a table from a database to an XML file

1. On the **External Data** tab, in the **Export** group, click the **More** button, and then in the list, click **XML File**.
2. In the **Export – XML File** wizard, click **Browse**, and in the **File Save** dialog box, navigate to the folder you want to store the file in, and click **Save**.
3. In the **Export – XML File** wizard, click **OK**.
4. In the **Export XML** dialog box, with the **Data (XML)** and **Schema of the data (XSD)** check boxes selected, click **OK**. Then in the **Export – XML File** wizard, click **Close**.

### To export a report from a database to an HTML file

1. In the **Navigation Pane**, double-click the report you want to export.
2. On the **External Data** tab, in the **Export** group, click the **More** button, and then click **HTML Document**.
3. In the **Export – HTML File** wizard, click **Browse**. Then in the **File Save** dialog box, navigate to the folder you want to save the report in, and click **Save**.
4. In the **Export – HTML File** wizard, select the **Open the destination file after the export operation is complete** check box, and then click **OK**.
5. In the **HTML Output Options** dialog box, select the encoding format options you want, and then click **OK** to export the file.

### To copy and paste records between an Access database table and other Office programs

1. Select the records you want to copy by pointing to the row selector of the first record you want to select, holding down the primary mouse button, and dragging to the last record you want to select.
2. On the **Home** tab, in the **Clipboard** group, click the **Copy** button.
3. Start the Office program you want to copy to, and click where you want to paste the records. Then on the **Home** tab, in the **Clipboard** group, click the **Paste** button.

## 5 Simplifying Data Entry by Using Forms

### To create a form based on a table by using the Form tool

1. Open the table on which you want to base the form.
2. On the **Create** tab, in the **Forms** group, click the **Form** button.

### To move labels on a form

- Select the labels to be moved by dragging through them, drag them to a blank section of the form, and then release the selection.

### To change the font and font size of a label on a form

1. Open the form in Design View, and click the label (not its text box) you want to change.
2. On the **Design** contextual tab, in the **Font** group, click the **Font** arrow, and then in the list, click the font you want to use.
3. With the label still selected, click the **Font Size** arrow, and then in the list, click the size you want.

### To edit form control properties by using the Property Sheet pane

1. Open the form in Design view, and if the **Property Sheet** pane is not visible, right-click the desired control, and then click **Properties**.
2. In the **Property Sheet** pane, click the property you want to change, and either type the new value, or click the down arrow and select the value you want. Repeat for all properties that you want to change.

### To edit multiple form control properties at once

1. Click anywhere in the **Detail** section of the form, and then drag diagonally to draw a rectangle through some portion of all the controls to select them.
2. In the **Property Sheet** pane, click the property you want to change, click the arrow that appears, and then click the option you want. Repeat for all properties that you want to change.

### To set the background properties of all controls on a form

1. Select all the controls on the form. Then on the **Format** tab of the **Property Sheet** pane, click **Back Style**, and set it to the option you want.
2. Click **Back Color**, and then click the ellipsis button.
3. In the **Color Builder**, click the square of the color you want.
4. Set the **Special Effect** property to the option you want, and the **Border Color** property to the color you want.

### To edit the caption of a form control

- Click the label whose caption you want to change. Then in the **Property Sheet** pane, click the **Caption** property, change the text to what you want, and press .

### To change the layout of controls on a form

- Drag through all the controls on the form to select them. Then on the **Arrange** tab, in the **Control Layout** group, click the **Remove** button.

### To delete a form control label

- Click the label you want to delete, and then press the  key.

### To select specific control labels on a form

- Hold down the  key as you click each control or drag through just the labels you want to select.

### To align form controls

- Select the labels (but not their corresponding text boxes), and then in the **Property Sheet** pane, set the **Text Align** property to the alignment you want.

### To size form control labels to fit their contents

- Select the labels to be sized, and then on the **Arrange** contextual tab, in the **Size** group, click the **Size To Fit** button.

### To insert space between form control labels and text boxes

- Select all the text boxes (but not their corresponding labels). Then in the **Property Sheet** pane, click the **Left** property, and then change the setting to the amount of space you want.

### To bind selected controls together

- On the **Arrange** tab, in the **Control Layout** group, click the **Group** button.

### To save the design of a form

- On the **Quick Access Toolbar**, click the **Save** button.

### To expand the Detail area of a form

- Point to the right edge of the form **Detail** grid, and when the pointer changes to a double-headed arrow, drag the edge of the background to the right.

### To move a label or text box control on a form

- Click a label or text box, move the pointer over its border, and when the pointer changes to a four-way arrow, drag it to a new location.

### To create an AutoFormat form template

1. On the **Arrange** contextual tab, in the **AutoFormat** group, click the **AutoFormat** button.
2. At the bottom of the **AutoFormat** gallery, click **AutoFormat Wizard**.
3. In the **AutoFormat** dialog box, click the **Customize** button.
4. In the **Customize AutoFormat** dialog box, click **Create a new AutoFormat based on the Form** option, and then click **OK**.
5. In the **New Style Name** dialog box, type a name for the new style, and then click **OK**.
6. Click **OK** to close the **AutoFormat** wizard. Then click the **Save** button, and close the form.

### To add a graphic to a form control

1. In the **Navigation Pane**, under **Forms**, right-click the form you want to use, and then click **Design View**.
2. On the **Design** contextual tab, in the **Controls** group, click the **Image** button, and then click the area where you want to place the image, drag diagonally to draw a rectangle, and release the mouse button.
3. In the **Insert Picture** dialog box, navigate to the folder where the graphic you want to use is located, and then double-click the graphic.

### To add a caption below a picture

1. In the **Controls** group, click the **Label** button, and then drag diagonally to draw a rectangle where you want it to appear.
2. In the active label control, type the caption text, and then press .

### To size a label control to fit the text

- Click the label control, and then on the **Arrange** tab, in the **Size** group, click the **Size to Fit** button.

### To add a combo box control without using a wizard

1. On the **Design** tab, in the **Controls** group, look at the **Use Control Wizards** button. If the button is active (orange), click it to deactivate it.
2. In the **Controls** group, click the **Combo Box** button, and then drag diagonally in the form to draw a rectangle where you want the combo box to appear.

### To dynamically size a selected form control to fit the window

1. On the **Arrange** tab, in the **Size** group, click the **Anchoring** tool.
2. In the **Anchoring** gallery, click **Stretch Across Top**.

### To copy the formatting of one control to another

- Click the box whose formatting you want to copy, and in the **Font** group, click the **Format Painter** button. Then click the box to which you want to apply the formatting.

### To add conditional formatting to a selected control

1. On the **Design** tab, in the **Font** group, click the **Conditional** button.
2. In the **Conditional Formatting** dialog box, select the criteria and the formatting you want to apply when the associated content meets the criteria.

### To remove the record selector and scroll bar controls from a form

1. In Design view, click the **Form** selector (the box at the junction of the horizontal and vertical rulers), and then press **[F4]** to display the **Property Sheet** pane for the entire form (if the sheet is not already displayed).
2. On the **Format** tab, change **Record Selectors** to **No**, and **Scroll Bars** to **Neither**.

### To create a form based on the fields in a table by using the Form wizard

1. In the **Navigation Pane**, under **Tables**, click the table in which you want to create the AutoForm.
2. On the **Create** tab, in the **Forms** group, click the **More Forms** button, and then in the list, click **Form Wizard**.
3. With the open table selected in the **Tables/Queries** list, click the **Move All** button to move all the table fields to the **Selected Fields** list, and then click **Next**.
4. On the second page of the wizard, choose the layout of the fields in the new form. On the third page, select a style option.
5. On the fourth page, with the **Open the form to view or enter information** option selected, click **Finish**.

### To create a form and subform simultaneously

1. On the **Create** tab, in the **Forms** group, click the **More Forms** button, and then click **Form Wizard**.
2. On the first page of the **Form** wizard, in the **Tables/Queries** list, click the table on which you want to base the form. Then click the **Move All** button to include all the table fields in the new form.
3. To create the subform, display the **Tables/Queries** list, and then click the table on which you want to base the subform.
4. In the **Available Fields** list, double-click the fields you want to include in the subform to move them to the **Selected fields** list, and then click **Next**.
5. With your primary table and **Form with subform(s)** selected, click **Next**.

6. With **Datasheet** selected, click **Next**.
7. On the last page of the wizard, select a style, and then click **Finish**.

#### To add a subform to a form

1. Open the form in Design view. Then on the **Design** tab, in the **Controls** group, make sure the **Use Control Wizards** button is active (orange).
2. In the **Controls** group, click the **Subform/Subreport** button, and then drag diagonally to draw a rectangle in a section where you want to put the subform.
3. On the **Subform** wizard's first page, with the **Use existing Tables and Queries** option selected, click **Next**.
4. In the **Tables/Queries** list, click the type of item you want to use.
5. Add fields to the **Selected Fields** list by double-clicking each field. Then click **Next**, select the options you want, and click **Finish**.

## 6 Locating Specific Information

#### To sort information in one column

- Click the arrow at the right side of the column header for the column you want to sort, and then click the direction you want to sort the information.
- Click the header of the column you want to sort, and then on the **Home** tab, in the **Sort and Filter** group, click the **Ascending** or **Descending** button.

#### To sort information in multiple columns

- Select the adjacent columns you want to sort, right-click the column header area of your selection, and then click how you want to sort the columns.

#### To move a field

- Click the column head you want to move, and then drag it to the position you want.

#### To filter records by a single criterion

1. In the field, click any instance of the record you want to filter by.
2. On the **Home** tab, in the **Sort & Filter** group, click the **Selection** button, and then in the list, click **Equals** "[the term you want to filter on]".

#### To remove a filter

- In the **Sort & Filter** group, click the **Toggle Filter** button.

#### To filter records with a text filter

1. Click the column header arrow, point to **Text Filters**, and then click the criterion you want to filter by.
2. In the Custom Filter dialog box, in the **ItemText begins with** box, type the first few letters of the text you want to filter by. Then click **OK**.

### To filter records with a “does not equal” filter

- In the column, right-click any instance of the criterion you don't want to filter, and then click **Does Not Equal** “[the item you don't want to filter]”.

### To use the Filter By Form command

1. In the **Navigation Pane**, under **Forms**, double-click the form you want to search.
2. On the **Home** tab, in the **Sort & Filter** group, click the **Advanced** button, and then in the list, click **Filter By Form**.
3. Click the box you want to search in, type the search criterion, and then press .
4. In the **Sort and Filter** group, click the **Toggle Filter** button.

### To use the Advanced Filter/Sort command to sort tables

1. On the **Home** tab, in the **Sort & Filter** group, click the **Advanced Filter Options** button, and then in the list, click **Advanced Filter/Sort**.
2. In the field list, double-click a field to copy it to the first cell in the first column of the design grid.
3. In the **Criteria** cell under the field you just copied, type the search criterion, and then press .
4. Repeat Steps 2 and 3 for any other fields you want to filter on.
5. In the **Sort & Filter** group, click the **Toggle Filter** button to view the records that match the criteria.

### To create a query in Design view

1. On the **Create** tab, in the **Other** group, click the **Query Design** button.
2. In the **Show Table** dialog box, on the **Tables** tab, double-click any tables you want to add to the query window. Then close the dialog box.
3. Drag the fields to be used in the query from the field lists to consecutive columns in the design grid.
4. On the **Design** contextual tab, in the **Results** group, click the **Run** button to run the query and display the results in Datasheet view.

### To save a filter as a query:

1. On the **Home** tab, in the **Sort & Filter** group, click the **Advanced** button and then click **Save As Query**.
2. In the **Save As Query** dialog box, give the query and appropriate name, and then click **OK**.

### To add data to a query in Design view

- To add a field from an existing table, double-click it.
- To add a field from another table, drag the table from the **Navigation Pane** into the upper section of the design window, and then double-click the field you want to add.



### To remove data from a query in Design view

- To delete a field from a query, select the field in the lower section of the design window, and then press the **Delete** key.
- To delete a table from a query, right-click the table in the upper section of the design window, and then click **Remove Table**.

### To add a Totals row to a query in Datasheet view

- On the **Home** tab, in the **Records** group, click the **Totals** button. Then click in each cell of the **Totals** row that appears at the end of the table, and select the summary data you want to appear in that cell.

## 7 Keeping Your Information Accurate

### To set the data type for a field in Design view

1. Click the **Data Type** cell next to the desired field.
2. Click the **Data Type** arrow, and then in the list, click the data type you want.

### To view the properties of a field

- With the table in Design view, click the field name to display its properties in the **Field Properties** area.

### To set the Field Size property for text, number, and autonumber fields

- With the table in Design view, click any cell in a field, and then in the **Field Properties** area, change the **Field Size** property to what you want.

### To use the Input Mask wizard in Design view

1. Select a field, and then click **Input Mask** in the **Field Properties** area.
2. Click the ellipsis button to the right of the cell to start the **Input Mask** wizard. (Click **Yes** if Access prompts you to install this feature.)
3. Select an available mask in the **Input Mask** list, and then click **Next**.
4. In the **Input Mask** and **Placeholder character** boxes, make any changes you want, and then click **Next**.
5. Choose whether to store the data with the symbols, and then click **Finish**.
6. Press  to accept the mask. Then save your changes.

### To set a field validation rule in Design view

1. Select a field, and then click in the **Validation Rule** box in the **Field Properties** area.
2. Type an expression in the **Validation Rule** box, or click the ellipsis button to use the **Expression Builder**.
3. Press . Then save the table.

### To test the validation rules in a table in Design view

- Right-click the table's title bar, and click **Test Validation Rules**.

### To select an entire field

- Move the pointer to the left end of a field, and when the pointer changes to a thick cross, click the field.

### To set a table validation rule

1. Right-click in the table window, and then click **Properties**.
2. Click in the **Validation Rule** box, type the information for the rule, press , and then save the table.

### To create a lookup list with the Lookup wizard

1. Set the data type of a field to **Lookup Wizard**.
2. Select the options you want, and then click **Next**.
3. Continue selecting the options you want, clicking **Next** when you are done with each page. When you are done filling out the wizard, click **Finish**.
4. On the **Quick Access Toolbar**, click the **Save** button.

### To restrict what can be entered in a lookup list

1. In Design view, in the **Field Properties** area, click the **Lookup** tab.
2. Change **Limit To List** to **Yes**.
3. Change **Allow Value List Edits** to **No**.
4. Save the table.

### To create a multi-column lookup list

1. Add a new field, name it, and then set the data type to **Lookup Wizard**.
2. Select the **values** option you want, and then click **Next**.
3. Type the number of columns you want, and then enter the data you want in each column.
4. Click **Next**, and then click **Finish**.
5. Save your changes.

### To prevent a column from being displayed in a multi-column lookup list

- In Design view, on the **Lookup** tab, in the **Column Widths** box, change the width for the column you don't want displayed to **0**. Then save your changes.

### To filter selections in a multi-column lookup list

1. Right-click any cell in a column you want to filter, point to **Text Filters**, and then click the filter option you want.
2. In the **Custom Filter** box, type criterion you want to filter for, and then press .

### To create a select query

1. You must first create a select query. On the **Create** tab, in the **Other** group, click the **Query Design** button.

2. In the **New Query** dialog box, with **Simple Query Wizard** selected, click **OK**.
3. In the **Tables/Queries** list, click the option you want. Then in the **Available Fields** list, double-click the fields you want to move to the **Selected Fields** list.
4. In the **Simple Query Wizard** dialog box, click **Finish** to create the select query.

#### To create an update query

1. First, create a select query that selects the records you want to update.
2. Open the select query in Design view. Then on the **Design** contextual tab, in the **Query Type** group, click the **Update** button.
3. In the design grid, type the expression for your update.

#### To create an action query

1. First, create a select query that selects the records you want to manipulate.
2. Open the select query in Design view. Then on the **Design** contextual tab, in the **Query Type** group, click the **Make Table**, **Append**, **Update**, or **Delete** button.
3. Provide the information requested for the specified query type.

#### To create a delete query

1. First, create a select query that selects the records you want to delete.
2. Open the select query in Design view. Then on the **Design** contextual tab, in the **Query Type** group, click the **Delete** button to convert this select query to a delete query.
3. In the design grid, set the delete criteria.

#### To back up a database

1. Click the **Microsoft Office Button**, point to **Manage**, and then click **Back Up Database**.
2. In the **Save As** dialog box, navigate to the folder in which you want to store the backup, and then click **Save**.

#### To compact a database

- Click the **Microsoft Office Button**, point to **Manage**, and then click **Compact and Repair Database**. Acknowledge the safety warning if prompted to do so.

#### To analyze the performance of a database

1. On the **Database Tools** tab, in the **Analyze** group, click the **Analyze Performance** button.
2. In the **Performance Analyzer** dialog box, on the **All Object Types** tab, click **Select All**, and then click **OK**.
3. Click each result in the **Analysis Results** box to display more information about that result in the **Analysis Notes** area.

### To document a database

1. On the **Database Tools** tab, in the **Analyze** group, click the **Database Documenter** button.
2. In the **Documenter** dialog box, select the options you want on each tab. Then click **OK** to start the documentation process.

## 8 Working with Reports

### To create a report by using the Report wizard

1. On the **Create** tab, in the **Reports** group, click the **Report Wizard** button.
2. On the field selection page, click the **Tables/Queries** arrow, and then in the list, click the table or query that you want to base your report on.
3. In the **Available Fields** list, double-click the fields you want to move to the **Selected Fields** list.
4. To select fields from additional tables or queries, repeat Steps 2 and 3.
5. On the field selection page, click **Next**.
6. On the grouping page, select how you want to view your data, and then click **Next**.
7. On the grouping levels page, add up to four grouping levels by double-clicking field names to move them to the top of the preview pane. Then click the **Grouping Options** button.
8. In the **Grouping Intervals** dialog box, click the **Grouping intervals** arrow next to each grouping level and select the desired interval, click **OK**, and then click **Next**.
9. On the sort order page, click the arrow to the right of the first box, and select a field to sort on; repeat for each field you want to sort on, and then click **Next**.
10. On the layout page, select the options you want, and then click **Next**.
11. On the style selection page, click the style you want, and then click **Next**.
12. In the title box, type a title for the report, and then with the **Preview the report** option selected, click **Finish**.

### To preview a print version of a report

- In the **Navigation Pane**, right-click the desired report, and then click **Print Preview**.

### To adjust the height of a report section

1. In the **Navigation Pane**, right-click the desired report, and then click **Design View**.
2. Point to the top edge of a section selector.
3. When the pointer changes to a two-headed vertical arrow, drag the selector in the direction you want.

### To insert the current date in a report

1. In **Design view**, on the **Design** contextual tab, in the **Controls** group, click the **Date & Time** button.

2. In the **Date And Time** dialog box, select a date format option, and clear the **Include Time** check box if you want to include only the date. Then click **OK**.

### To reposition a text box in a report

- In Design view, select the text box, then drag it to the desired location.

### To align text in a report

- In Design view, select the text box, and in the **Font** group, click one of the alignment buttons.

### To delete a text box from a report

- In Design view, click the text box to select it, and then press **Del**.

### To move controls as a group

1. In Design view, drag diagonally to draw a rectangle through some portion of all the labels and the text boxes you want to move.
2. Drag the selected controls to where you want them.

### To change the page width of a report

1. In Design view, click the Report Selector. Then press **F4** to display the **Property Sheet** pane.
2. On the **Format** tab, change the **Width** setting.

### To group and sort data in a report

1. Switch to Design view.
2. On the **Design** tab, in the **Grouping & Totals** group, click the **Group & Sort** button.
3. In the **Group, Sort, and Total** pane, in the **Group on** bar, click **More** to see additional options, and then choose the ones you want.
4. Click the **Group & Sort** button to close the **Group, Sort, and Total** pane.

### To insert a horizontal line in a report

1. In Design view, in the **Controls** group, click the **Line** button.
2. Click the location where you want the horizontal line to appear.
3. Press **F4** to display the **Property Sheet** pane. Then set the **Left**, **Width**, and **Border Color** properties as desired.

### To align the columns of a report

1. In Design view, select the label and text box for the column you want to align.
2. Press **F4** to display the **Property Sheet** pane. Then set the **Left** and **Width** properties to precisely align the column on the page.
3. Repeat Step 2 for each column you want to align.

### To change the Design view grid for a report

1. In Design view, click the **Report** selector, and then press **F4** to open the **Property Sheet** pane.
2. On the **Format** tab, change the **Grid X** and **Grid Y** properties to the number of dots per inch that you want to show on the grid.

### To set the height of a section in a report

- Click the section, and on the **Format** tab in the **Property Sheet** pane, set the **Height** property to the measurements you want.

### To save a new report

1. On the **Quick Access Toolbar**, click the **Save** button.
2. In the **Save As** dialog box, type a name for the new report in the **Report Name** box, and then click **OK**.

### To insert a title in a report

- Open the report in Design view. Then on the **Design** contextual tab, in the **Controls** group, click the **Title** button.

### To insert a page number in a report

1. Open the report in Design view. Then in the **Controls** group, click the **Insert Page Number** button.
2. In the **Page Numbers** dialog box, select the desired format, position, and alignment options. Then click **OK**.

### To insert a subreport in a report

1. Open the main report in Design view. Then double-click the **Report Selector** to display the **Property Sheet** pane.
2. On the **Data** tab, click the **Record Source** arrow, and select the table or query on which the subreport will be based.
3. On the **Design** contextual tab, in the **Controls** group, click the **Subform/Subreport** button, and then click a point on the main report.
4. In the **Subreport** wizard, with the **Use existing Tables and Queries** option selected, click **Next**.
5. In the **Tables/Queries** list, click the query you want to use.
6. In the **Available Fields** list, double-click the fields you want to use to move them to the **Selected Fields** list, and then click **Next**.
7. Select the appropriate options to define the fields you want to include in the subform.
8. Click **Next**, and then click **Finish**.

### To view a report in Print Preview mode

- If the report is not open, right-click it in the **Navigation Pane**, and then click **Print Preview**.
- If the report is open, on the **Home** tab, in the **Views** group, click the **View** arrow, and then click **Print Preview**, or click the **Print Preview** button on the **View** toolbar.

### To view a report in Layout View mode

- If the report is not open, right-click it in the **Navigation Pane**, then click **Layout View**.
- If the report is open, on the **Home** tab, in the **Views** group, click the **View** arrow, and then click **Layout View**, or click the **Layout View** button on the **View** toolbar.

### To print a report

1. Either open the report or select it in the **Navigation Pane**.
2. Click the **Microsoft Office Button**, and then click **Print**.
3. In the **Print** dialog box, set the properties you want, and then click **OK**.

## 9 Making Your Database Easy to Use

### To create a switchboard

1. On the **Database Tools** tab, in the **Database Tools** group, click the **Switchboard Manager** button, and then click **Yes** if Access asks whether you want to create a switchboard.
2. With **Main Switchboard (Default)** selected in the **Switchboard Pages** list, click **Edit**.
3. In the **Switchboard Name** box, replace *Main Switchboard* with a name for your switchboard. Then click **Close**.

### To add a new page to a switchboard

1. On the **Database Tools** tab, in the **Database Tools** group, click the **Switchboard Manager** button.
2. In the **Switchboard Manager** window, select the type of switchboard you want, and then click **New**.
3. Replace the default new switchboard page name with the name you want, and then click **OK**.

### To create a button on a switchboard page

1. On the **Database Tools** tab, in the **Database Tools** group, click the **Switchboard Manager** button.
2. With the switchboard selected in the **Switchboard Pages** list, click **Edit**.
3. In the **Edit Switchboard Page** window, click **New**.

4. In the **Edit Switchboard Item** dialog box, in the **Text** box, type a name for the button label.
5. If you want to change the command assigned to the button, click the **Command** arrow, and then click your selection in the list.
6. If there is a box below the **Command** box, click the arrow next to it, and in the list, select the appropriate option. Then click **OK**.
7. In the **Edit Switchboard Item** dialog box, click **OK**.

#### To create a custom category

1. Right-click the category header at the top of the **Navigation Pane**, and then click **Navigation Options**.
2. In the **Grouping Options** area of the **Navigation Options** dialog box, click the **Add Item** button.
3. Replace the default name of the new category with the name you want, and then press .
4. Click the **Add Group** button, and then in the **Groups** list, replace *Custom Group 1* with the new group name.
5. In the **Navigation Options** dialog box, click **OK**.

#### To add shortcuts to a category

1. Click the category header at the top of the **Navigation Pane**, and then click the custom category that you want to add shortcuts to.
2. In the **Unassigned Objects** group, click the object you want to add to a custom group, and drag the object on top of the desired group header to add a shortcut to the group; or right-click the desired object, point to **Add to group**, and click the group you want to add the shortcut to.

#### To add any command to the Quick Access Toolbar

1. At the right end of the **Quick Access Toolbar**, click the **Customize Quick Access Toolbar** button.
2. Near the bottom of the **Customize Quick Access Toolbar** menu, click **More Commands**.
3. In the **Access Options** window, click the **Choose commands from** arrow, and in the list, click the area from which you want to add a command.
4. In the available commands list, locate and click the command you want to add to the Quick Access Toolbar. Then between the two command lists, click **Add**.
5. At the bottom of the **Customize** page, click **OK**.



### To reposition commands on the Quick Access Toolbar

1. On the **Customize** page of the **Access Options** window, click the command you want to move, and then click the **Move Up** or the **Move Down** button until the command is in the position you want.
2. At the bottom of the **Customize** page, click **OK**.

### To add a command from the Ribbon to the Quick Access Toolbar

- Right-click the command on the Ribbon, and then click **Add to Quick Access Toolbar**.

### To remove a command from the Quick Access Toolbar

1. At the right end of the **Quick Access Toolbar**, click the **Customize Quick Access Toolbar** button.
2. Near the bottom of the **Customize Quick Access Toolbar** menu, click **More Commands**.
3. In the toolbar commands list, click the command you want to remove. Then between the two command lists, click **Remove**.
4. At the bottom of the **Customize** page, click **OK**.

## 10 Securing and Sharing Information

### To assign a password to a database

1. Start Access 2007.
2. Click the **Microsoft Office Button**, and then on the menu, click **Open**.
3. In the **Open** dialog box, navigate to the folder where the database is located, and click the database to select it. Then click the **Open** arrow, and in the list, click **Open Exclusive**.
4. On the **Database Tools** tab, in the **Database Tools** group, click the **Encrypt with Password** button.
5. In the **Password** box of the **Set Database Password** dialog box, type a password, and then press the **Tab** key.
6. In the **Verify** box, type the same password you typed in the **Password** box. Then click **OK**.

### To test a database password

1. Open the database.
2. In the **Enter database password** box of the **Password Required** dialog box, type an incorrect password, and then click **OK**.

3. In the **Microsoft Office Access** message box warning you that the password you entered is not valid, click **OK**.
4. In the **Password Required** dialog box, type the correct password, and then click **OK**.

#### To remove a password from a database

1. Start Access 2007.
2. Click the **Microsoft Office Button**, and then on the menu, click **Open**.
3. In the **Open** dialog box, navigate to the folder where the database is located, and click the database to select it. Then click the **Open** arrow, and in the list, click **Open Exclusive**.
4. On the **Database Tools** tab, in the **Database Tools** group, click the **Decrypt Database** button.
5. In the **Password** box of the **Unset Database Password** dialog box, type the current password, and then click **OK**.

#### To secure VBA code in a database by using a password

1. Open a database, and on the **Database Tools** tab, in the **Macro** group, click the **Visual Basic** button.
2. On the **Tools** menu of the Visual Basic Editor, click **Base Properties**.
3. On the **Protection** tab of the **Project Properties** dialog box, select the **Lock project for viewing** check box.
4. In the **Password** box, type a password, and then press the **Tab** key.
5. In the **Confirm Password** box, type the same password you entered in the **Password** box, and then click **OK**.
6. Close the Visual Basic Editor, and then close the database.

#### To test a VBA-securing password

1. Open the database.
2. On the **Database Tools** tab, in the **Macro** group, click the **Visual Basic** button (or press **Alt + F11**).
3. Click the **Expand** button to the left of the database project.
4. In the **Password** dialog box, type the password for the database, and then click **OK**.

**To remove the security from the VBA code in a database**

1. On the Visual Basic Editor **Tools** menu, click **Base Properties**.
2. On the **Protection** tab, clear the **Lock project for viewing** check box, and delete the asterisks from the two password boxes. Then click **OK**.

**To secure a database by saving it as a distributable ACCDE file**

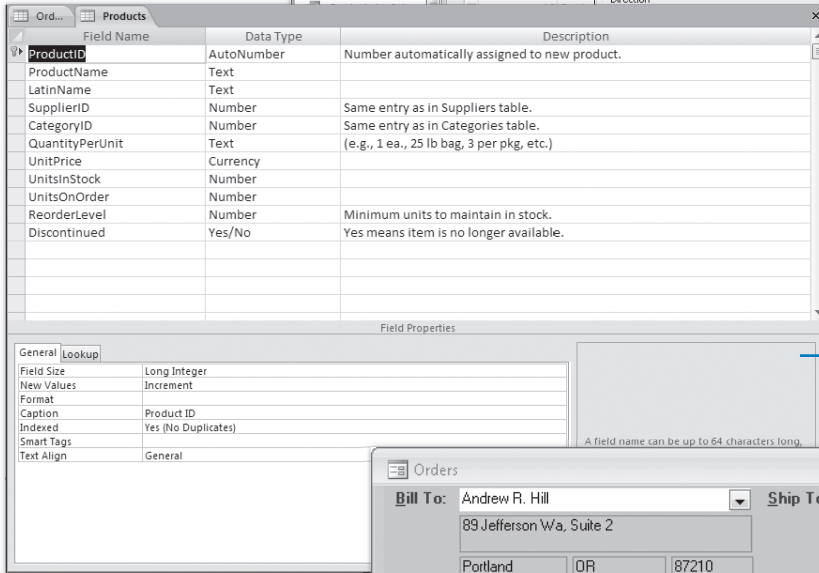
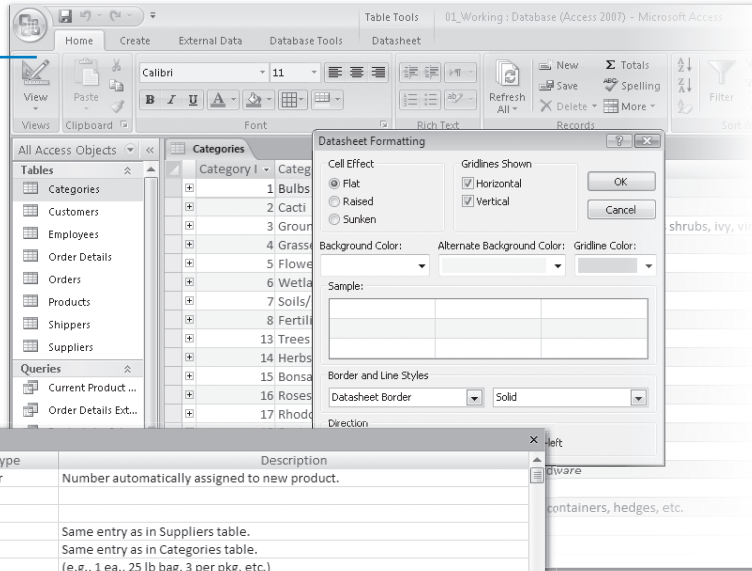
1. Open a database, and on the **Database Tools** tab, in the **Database Tools** group, click the **Make ACCDE** button.
2. In the **Save As** dialog box, navigate to the folder you want to save the file in, and then click **Save**.

**To split a database:**

1. Make a copy of the database on your computer, and then open it.
2. On the **Database Tools** tab, in the **Move Data** group, click the **Access Database** button.
3. In the Database Splitter wizard, click **Split Database**.
4. In the **Create Back-end Database** dialog box, specify a name and storage location for the back-end database, click **Split**, and then click **OK** in the message box telling you that the split was successful.

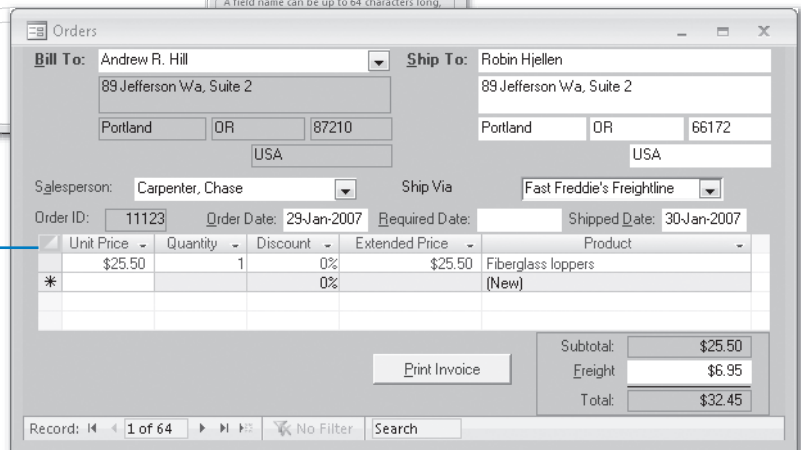
# Chapter at a Glance

Work in Access 2007,  
page 2



Explore tables, page 14

Explore forms, page 23



# 1 Exploring Access 2007

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## In this chapter, you will learn to:

- ✓ Work in Access 2007.
  - ✓ Understand database concepts.
  - ✓ Open an existing database.
  - ✓ Explore tables, queries, forms, reports, and other Access objects.
  - ✓ Preview and print Access objects.
- 

Microsoft Office Access 2007 is part of the 2007 Microsoft Office system, so the basic interface objects—such as the Office menu, the Quick Access Toolbar, the Ribbon, and dialog boxes—will be familiar if you have used other Office 2007 products. However, Access has more dimensions than most of those other products or programs, so it might seem more complex until you become familiar with it.

If you are upgrading from an earlier version of Access, then you should review “Introducing Access 2007” in the front of this book to learn about differences between earlier versions and Access 2007.

In this chapter, you will learn to work in the Access program window and learn about the concepts and structure of data storage in Access, including types of databases, types of Access objects, and relationships between objects. You will experiment with a complete working database, learning about interesting features of Access as well as functionality that you will explore in more depth in later chapters.

**See Also** Do you need only a quick refresher on the topics in this chapter? See the [Quick Reference section at the beginning of this book](#).

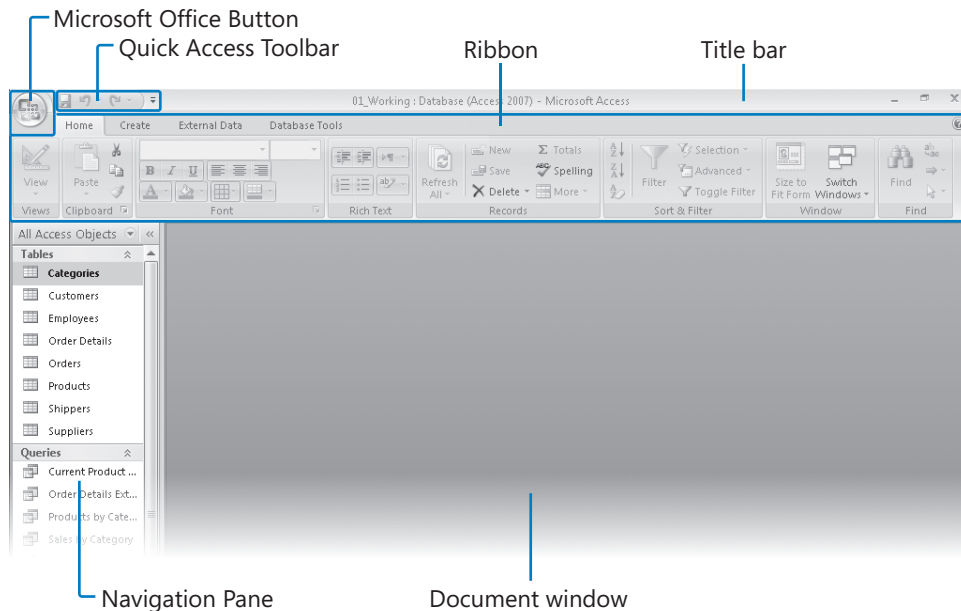


**Important** Before you can use the practice files in this chapter, you need to install them from the book’s companion CD to their default location. See “Using the Companion CD” at the beginning of this book for more information.

**Troubleshooting** Graphics and operating system–related instructions in this book reflect the Windows Vista user interface. If your computer is running Windows XP and you experience trouble following the instructions as written, please refer to the “Information for Readers Running Windows XP” section at the beginning of this book.

## Working in Access 2007

When you create or open a database, it opens in a *database window*. The new Access database window interface is designed to more closely reflect the way people generally work with a database or database object.



The interface includes the following elements:

- Commands related to managing databases (such as creating, saving, printing, backing up, and publishing) are available from the menu that appears when you click the **Microsoft Office Button** in the upper-left corner of the program window. This menu, which we refer to throughout this book as the *Office menu*, takes the place of the File menu that appeared in previous versions of Access.
- Some commands are represented by buttons on the **Quick Access Toolbar** to the right of the Microsoft Office Button. By default, the database window Quick Access Toolbar displays the Save, Undo, and Redo buttons. You can add commands to the

Quick Access Toolbar so that they are available regardless of which tab or object is currently active in the database window.

**See Also** For information about customizing the Quick Access Toolbar commands and location, see “Making Favorite Access Commands Quickly Available” in Chapter 9, “Making Your Database Easy to Use.”

- The **title bar** displays the name of the active database object (if it is maximized). At the right end of the title bar are the three familiar buttons that have the same function in all Windows programs. You can temporarily hide the Access window by clicking the Minimize button, adjust the size of the window by clicking the Restore Down/Maximize button, and close the active window or exit Access by clicking the Close button.
- Below the title bar is the **Ribbon**, a new feature in many of the programs in the Office system. Commands are presented on the Ribbon rather than on the more-traditional menus or toolbars so that you can work most efficiently within the window. The Ribbon is organized into task-specific **tabs**, which are further divided into feature-specific or task-specific **groups** of commands.
- The buttons in each group change size depending on the width of the program window. They might be large, small, or wide, and might be labeled with the button name, icon, or both. Pointing to any button displays the button name in a **ScreenTip** that sometimes also describes the button’s function.

Some buttons have arrows, but not all arrows function the same way. If you point to a button that has an arrow is incorporated into the button body, clicking the button will display a list of options for you to choose from. If the arrow is separate from the button body, clicking the arrow will display a list of options and clicking the button will perform the currently selected action.

- Related but less common commands are not represented in a group as buttons. Instead they are available from a dialog box, which you can display by clicking the **Dialog Box Launcher** at the right end of the group title bar.
- The **Microsoft Office Access Help** button appears at the right end of the Ribbon.
- The **Navigation Pane** displays filtered lists of database objects. You can change the objects included in the list by clicking the list header and then clicking the category or group of objects you want to display.



The goal of the redesigned environment is to make working within an item window more intuitive. Commands for tasks you perform often are no longer hidden on menus and in dialog boxes, and features that you might not have discovered before are now plainly visible.

By default, Access 2007 displays database objects as *tabbed documents* in the document window. If you prefer to display each object in a separate window rather than on a separate tab, you can do so by clicking Access Options on the Office menu, and then on the Current Database page, selecting the Overlapping Windows option.

When displaying Tabbed Documents, a Close button for the active database object appears to the right of the document tabs. When displaying Overlapping Windows, in a maximized database object window, the Minimize, Maximize/Restore Down, and Close buttons for the object window appear on the right end of the Ribbon, and the Access icon appears to the left of the Home tab. Clicking the Access icon opens the control menu, displaying a list of commands related to managing the active object window: Restore, Move, Size, Minimize, Maximize, and Close. When not maximized, clicking the object icon at the left end of the object window title bar displays the control menu.

In this exercise, you will take a tour of the command structure in an Access 2007 database window.



**USE** the *Working* database. This practice file is located in the *Documents\Microsoft Press\Access2007SBS\Exploring* folder.

1. On the **Start** menu, click **Documents**. Then in your *Documents* folder, browse to the *Microsoft Press\Access2007SBS\Exploring* subfolder, and double-click the *Working* database.

The database opens, with the Navigation Pane displaying the All Access Objects list. In the database window, the Ribbon includes four tabs:

- Home
- Create
- External Data
- Database Tools

**Tip** Depending on what programs are installed on your computer, tabs and groups other than those described here might also appear on the Ribbon.



The Home tab is active by default. Because no database object is currently open, only a few buttons on the Home tab are available.



Microsoft Office  
Button

2. In the upper-left corner of the database window, click the **Microsoft Office Button**.

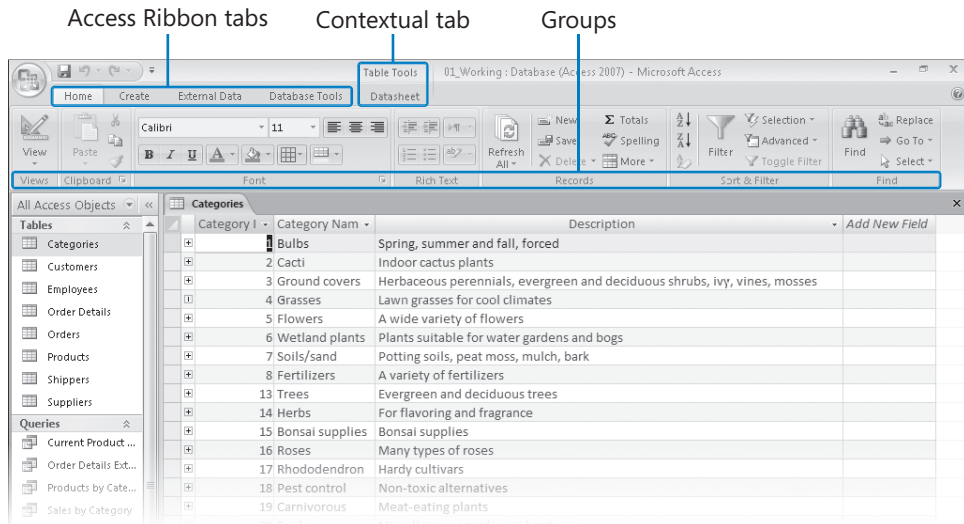
The Office menu opens.



You can create a database, but not a database object, from this menu. We'll talk about the commands available from the Office menu in other chapters of this book.

3. Click away from the Office menu to close it.
4. In the **Navigation Pane**, under **Tables**, double-click **Categories**.

The Categories table opens, an associated Table Tools contextual tab (Datasheet) appears, and more of the Home tab becomes active.



Buttons representing commands related to working with database content are organized on this tab in seven groups:

- Views
- Clipboard
- Font
- Rich Text
- Records
- Sort & Filter
- Find

Only the buttons for the commands that can be performed on the currently selected database object are active.

**Important** Depending on your screen resolution and the size of the database window, you might see more or fewer buttons in each of the groups, the buttons you see might be represented by larger or smaller icons than those shown, or the group might be represented by a button that you click to display the group's commands. Experiment with the size of the database window to understand the effect on the appearance of the tabs.



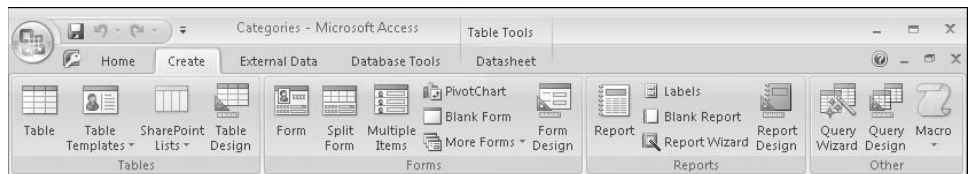
5. On the **Home** tab, click the **Font Dialog Box Launcher**.

The Datasheet Formatting dialog box opens.



You can access certain settings not available from the Font group, such as Cell Effect and Border Styles, from this dialog box.

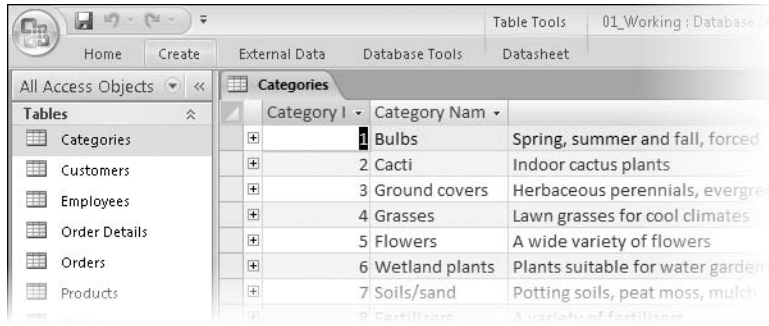
6. In the **Datasheet Formatting** dialog box, click **Cancel**.
7. Click the **Create** tab.



Buttons representing commands related to creating database objects are organized on this tab in four groups:

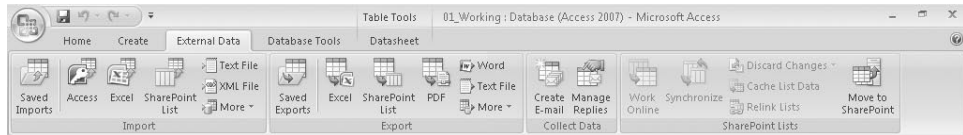
- Tables
  - Forms
  - Reports
  - Other
8. Double-click the **Create** tab.

Double-clicking the active tab hides the Ribbon and provides more space for the active database object.



9. Click the **External Data** tab.

The Ribbon reappears, with the External Data tab active.



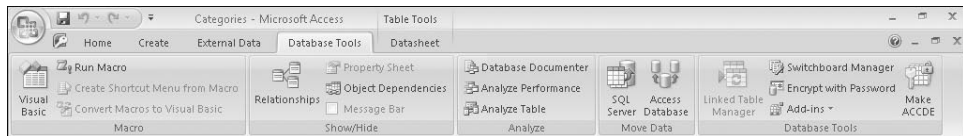
Buttons representing commands related to moving information between a database and other sources are organized on this tab in four groups:

- Import
- Export
- Collect Data
- SharePoint Lists

10. Click anywhere in the open table.

The Ribbon hides again. When you hide the Ribbon, it remains hidden except when active, until you again double-click a tab.

11. Double-click the **Database Tools** tab to display the tab and redisplay the Ribbon.



Buttons representing commands related to managing, analyzing, and protecting information are organized on this tab in five groups:

- Macro
- Show/Hide
- Analyze
- Move Data
- Database Tools



**CLOSE** the *Working* database.

## Understanding Database Concepts

Simple *database programs*, such as the Database component of Microsoft Works, can store information in only one table. These simple databases are often called flat file databases, or just *flat databases*. More complex database programs, such as Access, can store information in multiple related tables, thereby creating what are referred to as *relational databases*. If the information in a relational database is organized correctly, you can treat these multiple tables as a single storage area and pull information electronically from different tables in whatever order meets your needs.

A table is just one of the types of *objects* that you can work with in Access. Other object types include queries, forms, reports, pages, macros, and modules.

Of all these object types, only one—the table—is used to store information. The rest are used to manage, manipulate, analyze, retrieve, display, or publish information stored in a table—in other words, to make the information as accessible and therefore as useful as possible.

**Tip** Access 2007 introduces a new file storage format that uses the *.accdb* extension. You can open old Access databases (with an *.mdb* extension) in Access 2007 and save them in the new format, but after they're converted, you will not be able to open them with a previous version of Access.

The new format supports many new features. For more information about this format, search Access Help for *accdb*.

Over the years, Microsoft has put a lot of effort into making Access not only one of the most powerful consumer database programs available, but also one of the easiest to learn and use. Because Access is part of the Microsoft Office system, you can use many

of the techniques you know from using other Office programs, such as Microsoft Office Word and Microsoft Office Excel, when using Access. For example, you can use familiar commands, buttons, and keyboard shortcuts to open and edit the information in Access tables. And because Access is integrated with other members of the suite, you can easily share information between Access and Word, Excel, or other programs.

In its most basic form, a database is the electronic equivalent of an organized list of information. Typically, this information has a common subject or purpose, such as the list of employees shown here:

<b>ID</b>	<b>Last name</b>	<b>First name</b>	<b>Title</b>	<b>Hire date</b>
1	Anderson	Nancy	Sales Rep	May 1, 2003
2	Carpenter	Chase	Sales Manager	Aug 14, 2001
3	Emanuel	Michael	Sales Rep	Apr 1, 1999
4	Furse	Karen	Buyer	May 3, 2004

This list is arranged in a *table* of columns and rows. Each column represents a *field*—a specific type of information about an employee: last name, first name, hire date, and so on. Each row represents a *record*—all the information about a specific employee.

If a database did nothing more than store information in a table, it would be no more useful than a paper list. But because the database stores information in an electronic format, you can manipulate the information in powerful ways to extend its utility.

For example, if you want to locate a person or a business in your city, you can do so because the information in the telephone book is organized in an understandable manner. If you want to get in touch with someone a little further away, you can go to the public library and use its collection of phone books, which probably includes one for each major city in the country. However, if you want to find the phone numbers of all the people in the country with your last name, or if you want to find the phone number of your grandmother's neighbor, these phone books won't do you much good because they aren't organized in a way that makes that information easy to find.

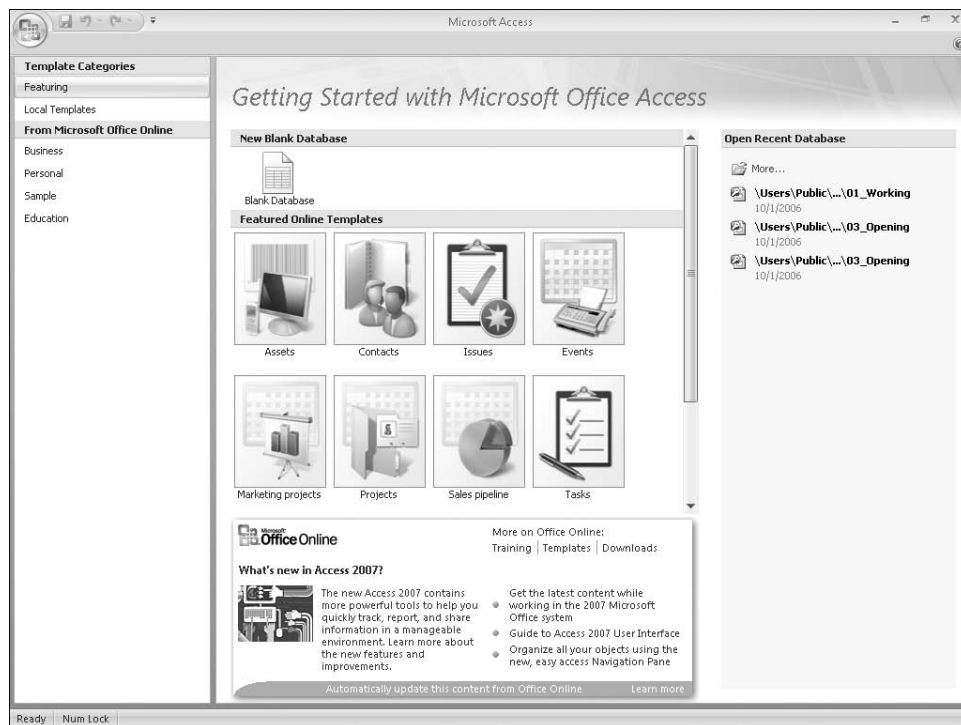
When the information published in a phone book is stored in a database, it takes up far less space, it costs less to reproduce and distribute, and, if the database is designed correctly, the information can be retrieved in many ways. The real power of a database isn't in its ability to store information; it is in your ability to quickly retrieve exactly the information you want from the database.

Because you can use standard Web programming code to easily manipulate the information in an Access 2007 database, you can create Web sites based on the information in your database or share that information with visitors to your site.

## Opening an Existing Database

Throughout this book, you will be working with databases that contain information about the employees, products, suppliers, and customers of a fictional company. As you complete the exercises in this book, you will develop an assortment of queries, forms, reports, data access pages, macros, and modules that can be used to enter, edit, and manipulate the information in many ways.

When you start Access without opening a database, you see the Getting Started With Microsoft Office Access window. You can return to this window at any time by clicking the Microsoft Office Button and then clicking New.



From this window you can open a blank database, create a new database from one of the many templates supplied with Access, from a template you download from the Microsoft Office Online Web site, or from a custom template saved on your computer or on a network share. You can also open a database you worked in recently, or navigate to any database on your computer and open it.

From the section at the bottom of the Getting Started window, you can link to the Microsoft Office Online Web site, where you can find information about all aspects of Office and download useful tools.

## Enabling Macros and Other Database Content

Some databases, such as those provided for your use in this book, contain Microsoft Visual Basic for Applications (VBA) macros that can run code on your computer. In most cases, the code is there to perform a database-related task, but hackers can also use macros to spread a virus to your computer.

When you open a database containing one or more macros, if the database is not stored in a Trusted Location or signed by a Trusted Publisher, Access displays a *security warning* just below the Ribbon.



While the security warning is displayed, the macros in the database are disabled. You can enable macros in three ways:

- By enabling the macros in the database for use in the current database session.
- By adding the database *publisher* to a list of Trusted Publishers. Access will automatically enable macro content in any database *signed* by that publisher.
- By placing the database in a Trusted Location. Access will automatically enable macro content in any database saved in that location. The Trusted Locations you specify within Access are not also trusted by other Office programs.

To enable macros for the current database session only:

1. In the **Security Warning** area, click **Options**.
2. In the **Microsoft Office Security Options** dialog box, click **Enable this content**, and then click **OK**.

To add the publisher of a digitally signed database to the Trusted Publishers list:

1. In the **Security Warning** area, click **Options**.
2. In the **Microsoft Office Security Options** dialog box, click **Trust all documents from this publisher**, and then click **OK**.

To add the location of this database to the Trusted Locations list:

1. In the **Microsoft Office Security Options** dialog box, click **Open the Trust Center**.
2. In the page list in the left pane of the **Trust Center**, click **Trusted Locations**.
3. On the **Trusted Locations** page, click **Add new location**.



4. In the **Microsoft Office Trusted Location** dialog box, click **Browse**.
5. In the **Browse** dialog box, browse to the folder containing the current database, and then click **OK**.
6. In the **Microsoft Office Trusted Location** dialog box, select the **Subfolders of this location are also trusted** check box if you want to do so, and then click **OK** in each of the open dialog boxes.

If you prefer, you can change the way Access handles macros in all databases:

1. Click the **Microsoft Office Button**, and then click **Access Options**.
2. On the **Trust Center** page of the **Access Options** dialog box, click **Trust Center Settings**.
3. On the **Macro Settings** page of the **Trust Center**, select the option for the way you want Access to handle macros:
  - **Disable all macros without notification.** If a database contains macros, Access disables them and doesn't display the security warning to give you the option of enabling them.
  - **Disable all macros with notification.** Access disables all macros and displays the security warning.
  - **Disable all macros except digitally signed macros.** Access automatically enables digitally signed macros.
  - **Enable all macros.** Access enables all macros.
4. Click **OK** in the **Trust Center** and in the **Access Options** dialog box.

In this exercise, you will open a database, explore some of the objects it contains, and then close the database.



**USE** the *Opening* database. This practice file is located in the *Documents\Microsoft Press\Access2007SBS\Exploring* folder.

**BE SURE TO** start your computer, but don't start Access before starting this exercise.

1. On the **Start** menu, point to **All Programs**, click **Microsoft Office**, and then click **Microsoft Office Access 2007**.

The Getting Started With Microsoft Office Access window opens.

2. In the **Open Recent Database** list, click **More**.

3. In the **Open** dialog box, navigate to your *Documents\Microsoft Press\Access2007SBS\Exploring* folder, and then double-click the *Opening* database. The database window opens.

**Troubleshooting** If this is the first time you've run Access, you might see a security warning below the Ribbon. Just ignore this warning for the moment, but be sure to read the sidebar "Enabling Macros and Other Database Content" to learn about Access security options.

The Navigation Pane on the left side of the program window lists the Access database objects. You can use the Navigation Pane to group and filter these objects in various ways. You can display only one type of object (for example, all tables) by clicking the list title bar and then the category or group of objects you want to display.



If the Navigation Pane is in your way, you can click the Shutter Bar Open/Close button in its upper-right corner, or press F11, to minimize it. To redisplay the Navigation Pane, click the Shutter Bar Open/Close button or press F11.

**Tip** For more information about the Navigation Pane, search Access Help for *navigation pane* and read the topic *Guide to the Navigation Pane*.

4. Click the **Microsoft Office Button**, and then click **Close Database**. When you close a database in this way, you return to the Getting Started window.

**Tip** You can close Access entirely by clicking the Close button in the upper-right corner of the window, or by clicking the Microsoft Office Button and then clicking Exit Access.

## Exploring Tables

Tables are the core database objects. Their purpose is to store information. The purpose of every other database object is to interact in some manner with one or more tables. An Access database can contain thousands of tables, and the number of records each table can contain is limited more by the space available on your hard disk than by anything else.

**Tip** For detailed information about Access specifications, such as the maximum size of a database or the maximum number of records in a table, search Access Help for "Access 2007 specifications" (including the quotes).

Every Access object has two or more *views*. For tables, the two most common views are *Datasheet view*, in which you can see and modify the table's data, and *Design view*, in which you can see and modify the table's structure. To open a table in Datasheet view, either double-click its name in the Navigation Pane, or right-click its name and then click Open. To open a table in Design view, right-click its name and then click Design View. After an object is open, you can switch between views by clicking one of the View icons in the lower-right corner of the program window, or by clicking the View arrow in the Views group on the Home tab, and then selecting a view from the list. If you simply click the View button Access switches between views in a manner that at times seems logical. If the current view is not Design view, it switches to Design view. If you click it again, the table switches to Datasheet view. When other database objects are active, clicking the View switches between views in a similar manner.

When you view a table in Datasheet view, you see the table's data in columns (fields) and rows (records).

Column

CustomerID	FirstName	LastName	Address	City	Region	PostalCode	Country	Phone
ACKPK	Pillar	Ackerman	8808 Backbay S	Bellevue	WA	88004	USA	(425)
ADATE	Terry	Adams	1932 52nd Ave	Vancouver	BC	V4T 1Y9	Canada	(604)
ALLMI	Michael	Allen	130 17th St.	Vancouver	BC	V4T 1Y9	Canada	(604)
ASHCH	Chris	Ashton	89 Cedar Way	Redmond	WA	88052	USA	(425)
BANMA	Martin	Bankov	78 Riverside Dr	Woodinville	WA	88072	USA	(425)
BENPA	Paula	Bento	6778 Cypress P	Oak Harbor	WA	88277	USA	(360)
BERJO	Jo	Berry	407 Sunny Way	Kirkland	WA	88033	USA	(425)
BERKA	Karen	Berg	PO Box 69	Yakima	WA	88902	USA	(509)
BOSRA	Randall	Boseman	55 Grizzly Peak	Butte	MT	49707	USA	(406)
BRETE	Ted	Bremer	311 87th Pl.	Beaverton	OR	87008	USA	(503)
BROKE	Kevin F.	Browne	666 Fords Land	Seattle	WA	88121	USA	(206)
CAMDA	David	Campbell	22 Market St.	San Francisco	CA	84112	USA	(415)
CANCH	Chris	Cannon	89 W. Hilltop D	Palo Alto	CA	84306	USA	(415)
CHANE	Neil	Charney	1842 10th Aven	Sidney	BC	V7L 1L3	Canada	(604)
CLAMO	Molly	Clark	785 Beale St.	Sidney	BC	V7L 5A6	Canada	(604)
COLPA	Pat	Coleman	876 Western A	Seattle	WA	88119	USA	(206)
CORCE	Cecilia	Cornejo	778 Ancient Rd	Bellevue	WA	88007	USA	(425)
COXBR	Brian	Cox	14 S. Elm Dr.	Moscow	ID	73844	USA	(208)
CULSC	Scott	Culp	14 E. University	Seattle	WA	88115	USA	(206)
DANMI	Mike	Danseglio	55 Newton	Seattle	WA	88102	USA	(206)
DANRY	Ryan	Danner	33 Neptune Cir	Langley	WA	88260	USA	(360)
DOYPA	Patricia	Doyle	1630 Hillcrest V	Carmel Valley	CA	83924	USA	(408)
ERIGA	Gail A.	Erickson	908 W. Capital	Tacoma	WA	88405	USA	(253)
ESTMO	Modesto	Estrada	511 Lincoln Ave	Burns	OR	87710	USA	(503)
FENHA	Hanying	Feng	637 Oakleaf A	Victoria	BC	V8C 3Z1	Canada	(604)
FLOPK	Betha	Flood	8887 Western	Glendale	CA	81203	USA	(818)

Row

If two tables have one or more fields in common, you can embed the datasheet from one table in another. By using an embedded datasheet, called a *subdatasheet*, you can see the information in more than one table at the same time. For example, you might want to embed an Orders datasheet in a Customers table so that you can see the orders each customer has placed.

In this exercise, you will open existing database tables and explore the table structures in different views.



**USE** the *Tables* database. This practice file is located in the *Documents\Microsoft Press\Access2007SBS\Exploring* folder.

**BE SURE TO** start Access and display the Getting Started window before beginning this exercise.

**Tip** In this database, the Navigation Pane filter has been set to display all Access objects, but the Queries, Forms, and Reports object groups are collapsed. You can collapse and expand groups to display only the ones you want, or you can filter the database objects by clicking the list header, and then clicking the option you want under Filter By Group.

1. Click the **Microsoft Office Button**, and then click **Open**.
2. In the **Open** dialog box, browse to the *Documents\Microsoft Press\Access2007SBS\Exploring* folder, and double-click the *Tables* database.

The database opens.

3. In the **Navigation Pane**, double-click **Categories**.

The *Categories* table opens in Datasheet view.

Category ID	Category Name	Description
1	Bulbs	Spring, summer and fall, forced
2	Cacti	Indoor cactus plants
3	Ground covers	Herbaceous perennials, evergreen and deciduous shrubs, ivy, vines, mosses
4	Grasses	Lawn grasses for cool climates
5	Flowers	A wide variety of flowers
6	Wetland plants	Plants suitable for water gardens and bogs
7	Soils/sand	Potting soils, peat moss, mulch, bark
8	Fertilizers	A variety of fertilizers
13	Trees	Evergreen and deciduous trees
14	Herbs	For flavoring and fragrance
15	Bonsai supplies	Bonsai supplies
16	Roses	Many types of roses
17	Rhododendron	Hardy cultivars
18	Pest control	Non-toxic alternatives
19	Carnivorous	Meat-eating plants
20	Tools	Miscellaneous gardening hardware
21	Berry bushes	Small bush fruits
22	Shrubs/hedges	Shrubbery suitable for beds, containers, hedges, etc.
*	(New)	

This table contains a list of product categories and fields such as Category ID, Category Name, and Description.

**Tip** You can open any database object by right-clicking it in the Navigation Pane and then clicking the view you want to open it in. Clicking Open opens the object in its default Datasheet.

**Tip** You can resize a table column by dragging the vertical bar in the header that separates it from the column to its right. You can set the width of a column to the width of its widest entry by double-clicking the vertical bar.



Expand

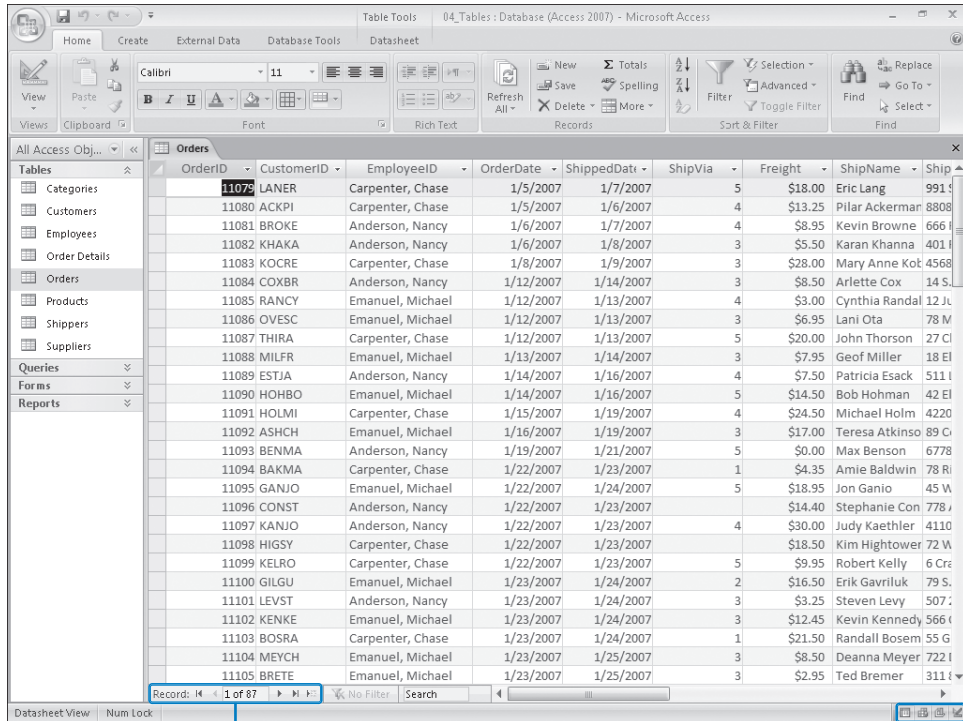
4. Maximize the table window if it isn't already maximized. Then in the datasheet, click the **Expand** button at the left end of the record for the Bulbs category. The Bulbs category expands to reveal an embedded subdatasheet. Access displays the category records from the Categories table and product records from the Products table simultaneously.

Product ID	Product Name	Latin Name	Supplier	Quantity Per Unit
1	Bulbs	Spring, summer and fall, forced		
1	Magic Lily	Lycoris squamigera	The Bulb Basket	One dozen
2	Autumn crocus	Colchicum	The Bulb Basket	One dozen
69	Anemone	Anemone coronaria	The Bulb Basket	One dozen
71	Lily-of-the-Field	Sternbergia lutea	The Bulb Basket	One dozen
160	Siberian Iris	Iris Siberica	The Bulb Basket	6 per pkg.
161	Daffodil	Ismene calathina	The Bulb Basket	6 per pkg.
162	Peony	Paeonia	The Bulb Basket	6 per pkg.
163	Lillies	Lilinum Hybrid	The Bulb Basket	6 per pkg.
164	Begonias	Begonia	The Bulb Basket	6 per pkg.
190	Bulb planter		The Bulb Basket	1 ea.
*	(New)			
2	Cacti	Indoor cactus plants		
3	Ground covers	Herbaceous perennials, evergreen and deciduous shrubs, ivy, vines, mosses		
4	Grasses	Lawn grasses for cool climates		
5	Flowers	A wide variety of flowers		
6	Wetland plants	Plants suitable for water gardens and bogs		
7	Soils/sand	Potting soils, peat moss, mulch, bark		
8	Fertilizers	A variety of fertilizers		
13	Trees	Evergreen and deciduous trees		
14	Herbs	For flavoring and fragrance		
15	Bonsai supplies	Bonsai supplies		



Collapse

5. Click the **Collapse** button to the left of the Bulbs category to hide the subdatasheet.
6. Click the **Close Window** button in the upper-right corner of the table, to the right of its tab (not the Close button in the upper-right corner of the program window) to close the Categories table. If Access prompts you to save changes to the table layout, click **Yes**.
7. In the **Navigation Pane**, double-click the **Orders** table to open it in Datasheet view.



Record navigation bar

View toolbar

The record navigation bar at the bottom of the window indicates that this table contains 87 records, and that the active record is number 1 of 87.



8. Move through the table one record at a time by clicking the **Next Record** button several times.

The selection moves down the OrderID field, because that field contains the insertion point.

**Tip** You can move the selection one record at a time by pressing the Up Arrow or Down Arrow key, one screen at a time by pressing the Page Up or Page Down key, or to the first or last field in the table by pressing Ctrl+Home or Ctrl+End.

9. Move directly to record 40 by selecting the current record number in the record navigation bar, typing **40**, and then pressing **Enter**.
10. In the **Navigation Pane**, double-click the **Products** table to open it in Datasheet view.

Notice that the table contains 189 records.

Product ID	Product Name	Latin Name	Supplier	Category	Quantity
1	Magic Lily	Lycoris squamigera	The Bulb Basket	Bulbs	One dozen
2	Autumn crocus	Colchicum	The Bulb Basket	Bulbs	One dozen
3	Compost bin		Garden Hardware Mfg.	Tools	1 - 12 ft cu
4	Cactus sand/potting mix		Soil and Sand Supplier	Soils/sand	5 lb. bag
5	Weeping Forsythia	Forsythia suspensa	The Shrub Club	Shrubs/hedges	1 ea.
6	Bat box		NoTox Pest Control	Pest control	1 box per
7	Electronic insect killer		NoTox Pest Control	Pest control	1 per box
8	Beneficial nematodes	Neolectana carpocap	NoTox Pest Control	Pest control	1 pt
9	Crown Vetch	Coronilla varia	Cover Up Stuff	Ground covers	3 - 3 inch
10	English Ivy	Hedera helix	Cover Up Stuff	Ground covers	5 ea. Root
11	Austrian Copper	R. foetida bicolor	Rosie's Roses	Roses	Per plant
12	Persian Yellow Rose	R. foetida 'Persiana'	Rosie's Roses	Roses	Per plant
13	Indoor Magic potting soil		Soil and Sand Supplier	Soils/sand	5 lb. bag
14	GrowGood potting soil		Soil and Sand Supplier	Soils/sand	10 lb. bag
15	Sterilized soil		Soil and Sand Supplier	Soils/sand	5 lb. bag
16	Winterberry	Ilex verticillata	The Shrub Club	Shrubs/hedges	1 ea.
17	Anise	Pimpinella anisum	The Herb House	Herbs	6 - 2" pots
18	Crushed rock		Wholesale Rock & Gravel	Soils/sand	Per yard
19	Chamomile	Anthemis nobilis	The Herb House	Herbs	6 - 2" pots
20	English Lavender	Lavandula angustifolia	The Herb House	Herbs	6 - 2" pots
21	Peppermint	Mentha piperita	The Herb House	Herbs	6 - 2" pots
22	European Ginger	Asarum europaeum	Green Things Galore	Ground covers	3 - 6" start
23	Rotary sprinkler		Garden Hardware Mfg.	Tools	1 ea.
24	The Best Bluegrass		The Grass Factory	Grasses	25 lb. bag
25	SureToGrow soil mix		Green Thumb Fertilizers	Fertilizers	15 lb. bag
26	QwikRoot		Green Thumb Fertilizers	Fertilizers	3 lb. jar
27	Fragrant Water Lily	Nymphaea odorata	Green Things Galore	Wetland plants	1 ea.



Design View

## 11. On the View toolbar, click the Design View button.

Field Name	Data Type	Description
ProductID	AutoNumber	Number automatically assigned to new product.
ProductName	Text	
LatinName	Text	
SupplierID	Number	Same entry as in Suppliers table.
CategoryID	Number	Same entry as in Categories table.
QuantityPerUnit	Text	(e.g., 1 ea., 25 lb bag, 3 per pkg, etc.)
UnitPrice	Currency	
UnitsInStock	Number	
UnitsOnOrder	Number	
ReorderLevel	Number	Minimum units to maintain in stock.
Discontinued	Yes/No	Yes means item is no longer available.

Field Properties

General	Lookup
Field Size	Long Integer
New Values	Increment
Format	
Caption	Product ID
Smart Tags	Yes (No Duplicates)
Text Align	General

A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

Datasheet view displayed the data stored in the table, whereas Design view displays the underlying table structure.



**CLOSE** the Products and Orders tables without saving your changes, and then close the Tables database to return to the Getting Started window.

## Exploring Queries

You can locate specific information stored in a table, or in multiple tables, by creating a *query* specifying the parameters of the information you want to find. For example, you might want to locate all your out-of-state customers who have purchased gloves within the last three months. You could find this information by sorting, filtering, and cross-referencing table data, but that would be a difficult and time-consuming task. It is far simpler to create a query that returns all records in the Customers table with billing addresses not in your state, whose customer IDs map to records that appear in the Transactions table within the past quarter and include item IDs that map to records in the Inventory table that are classified as gloves. That might sound complicated, but the process of creating a query to return the results described in this example is quite simple.

Running a query (also called *querying the database*) displays a datasheet containing the records that fit your search criteria. You can use the query results as the basis for further analysis, create other Access objects (such as reports) from the results, or export the results to another format, such as an Excel spreadsheet or a Microsoft SharePoint list.

If you will want to locate records matching the search criteria at any time in the future, you can save the query, and run it again from the Queries section of the Navigation Pane. Each time you run a query, Access evaluates the records in the specified table (or tables) and displays the current subset of records that match the criteria you have defined.

Don't worry if this all sounds a bit complicated at the moment. When you approach queries logically, they soon begin to make perfect sense. You can easily create queries by using the Query wizard that is available to help you structure the query, and if you create a query that you are likely to run more than once, you can save it. It then becomes part of the database and is displayed when you click Queries in the Navigation Pane.

**See Also** For more information about queries, see Chapter 6, "Locating Specific Information."

In this exercise, you will explore two existing queries.



**USE** the *Queries* database. This practice file is located in the *Documents\Microsoft Press\Access2007SBS\Exploring* folder.

**OPEN** the *Queries* database.

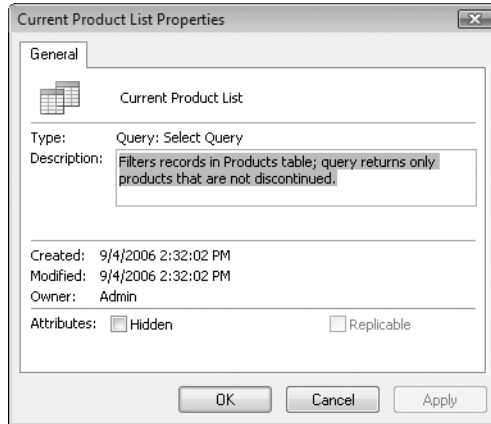
1. In the **Navigation Pane**, click **Queries**.

The database window displays all the queries that have been saved as part of this database.



2. Right-click the **Current Product List** query, and then click **Object Properties**.

Access displays the properties of the Current Product List query, including a description of its purpose. The icon shown on the General tab matches the icon shown for this query in the Navigation Pane, and is an indication of the query's type. The query type is also specified in the Properties dialog box: this is a Select Query.



3. In the **Properties** dialog box, click **Cancel**.

4. Right-click the **Products by Category** query, and then click **Open**.

Access processes the query (commonly referred to as *running the query*) and produces a datasheet displaying the results.

Category Name	Product Name	Quantity Per Unit	Units In Stock	Discontinue
Berry bushes	Blackberries	8 starts per pkg	18	<input type="checkbox"/>
Berry bushes	Currant	3 1/2 inch pot	18	<input type="checkbox"/>
Berry bushes	Gooseberries	3 1/2 inch pot	10	<input type="checkbox"/>
Berry bushes	Red Raspberries	fieldgrown bareroot	20	<input type="checkbox"/>
Berry bushes	Strawberries	fieldgrown bareroot	6	<input type="checkbox"/>
Bonsai supplies	Bonsai toolkit	1 ea.	3	<input type="checkbox"/>
Bonsai supplies	Dwarf Ficus Benjamina	1 ea.	3	<input type="checkbox"/>
Bonsai supplies	Dwarf Jack Pine	1 ea.	2	<input type="checkbox"/>
Bonsai supplies	Dwarf Juniper	1 ea.	3	<input type="checkbox"/>
Bonsai supplies	Dwarf Mugo Pine	1 ea.	1	<input type="checkbox"/>
Bonsai supplies	Green Mound Juniper	1 ea.	2	<input type="checkbox"/>
Bulbs	Anemone	One dozen	26	<input type="checkbox"/>
Bulbs	Autumn crocus	One dozen	37	<input type="checkbox"/>
Bulbs	Begonias	6 per pkg.	12	<input type="checkbox"/>
Bulbs	Bulb planter	1 ea.	6	<input type="checkbox"/>
Bulbs	Daffodil	6 per pkg.	24	<input type="checkbox"/>
Bulbs	Lilies	6 per pkg.	18	<input type="checkbox"/>
Bulbs	Lily-of-the-Field	One dozen	34	<input type="checkbox"/>
Bulbs	Magic Lily	One dozen	40	<input type="checkbox"/>
Bulbs	Peony	6 per pkg.	20	<input type="checkbox"/>
Bulbs	Siberian Iris	6 per pkg.	30	<input type="checkbox"/>
Cacti	Prickly Pear	1 ea.	10	<input type="checkbox"/>
Carnivorous	American Pitcher Plant	1 ea.	4	<input type="checkbox"/>
Carnivorous	Bladderwort	1 ea.	6	<input type="checkbox"/>
Carnivorous	Bladderwort	One 3" starter	5	<input type="checkbox"/>
Carnivorous	Butterworts	1 ea.	5	<input type="checkbox"/>
Carnivorous	Pitcher Plant	One 3" starter	3	<input type="checkbox"/>
Carnivorous	Sundew	One 3" starter	5	<input type="checkbox"/>

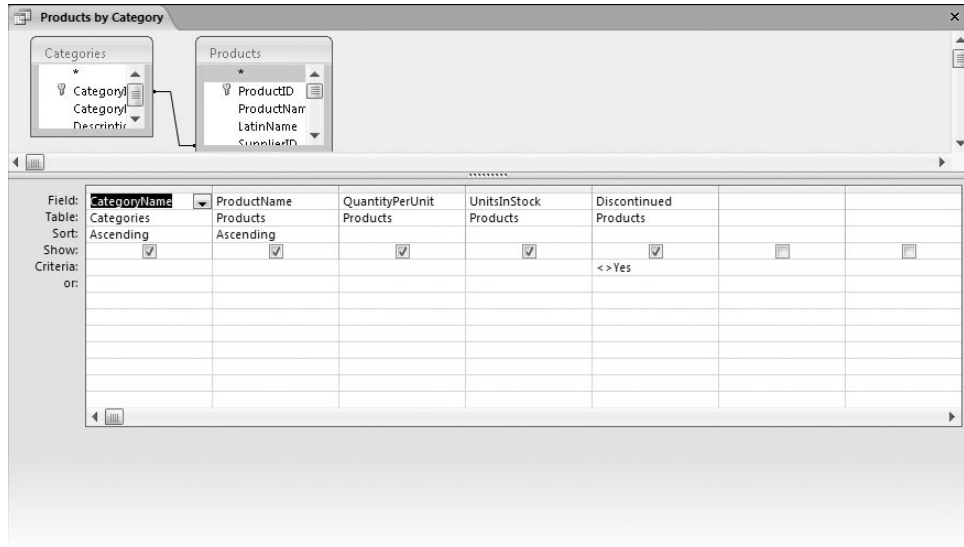
The record navigation bar indicates that 171 records are displayed; the database actually contains 189 records. To find out why 18 of the records are missing, you need to look at this query in Design view.



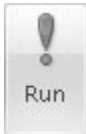
Design View

5. On the **View** toolbar, click the **Design View** button.

Access displays the query in Design view.



Two boxes in the top part of the query window list the fields in the tables this query is designed to work with. The query is formed in the design grid at the bottom of the query window. Each column of the grid can refer to one field from one of the tables above. Notice that <> Yes (not equal to Yes) has been entered in the Criteria row for the Discontinued field. This query finds all the records that don't have a value of Yes in that field (in other words, all the records that have not been discontinued).



6. As an experiment, in the **Criteria** row of the **Discontinued** field, replace <> with =, and then on the **Design** contextual tab, in the **Results** group, click the **Run** button.

**Tip** You can also run a query by switching to Datasheet view.

This time, the query finds all the records that have been discontinued.

The 18 discontinued products account for the difference between the number of records in the Products table and the number of records displayed by the original query.

Category Nam	Product Name	Quantity Per Unit	Units In Stoc	Discontinue
Bonsai supplies	Bonsai mixed garden	1 ea.	0	<input checked="" type="checkbox"/>
Bonsai supplies	Bonsai scissors	1 ea.	0	<input checked="" type="checkbox"/>
Fertilizers	Guano	5 lb. bag	0	<input checked="" type="checkbox"/>
Fertilizers	Muriate of potash	10 lb. bag	0	<input checked="" type="checkbox"/>
Grasses	Decorator moss	1 tray	0	<input checked="" type="checkbox"/>
Shrubs/hedges	Hedge shears 10"	1 ea.	0	<input checked="" type="checkbox"/>
Soils/sand	Buckwheat hulls	5 lb bag	0	<input checked="" type="checkbox"/>
Soils/sand	Oyster shells	5 lb bag	0	<input checked="" type="checkbox"/>
Soils/sand	Peanut hull meal	5 lb bag	0	<input checked="" type="checkbox"/>
Soils/sand	Terrarium soil	5 lb bag	0	<input checked="" type="checkbox"/>
Tools	Manure fork	1 ea.	0	<input checked="" type="checkbox"/>
Tools	Optional grass catcher	1 ea.	0	<input checked="" type="checkbox"/>
Tools	Posthole digger	1 ea.	0	<input checked="" type="checkbox"/>
Tools	Push reel lawn mower	1 ea.	0	<input checked="" type="checkbox"/>
Tools	Revolving sprinkler	1 ea.	0	<input checked="" type="checkbox"/>
Tools	Root waterer	1 ea.	0	<input checked="" type="checkbox"/>
Tools	Shade fencing 6'	50' roll	0	<input checked="" type="checkbox"/>
Tools	Sharpening kit	1 ea.	0	<input checked="" type="checkbox"/>
*				<input type="checkbox"/>



**CLOSE** the Products By Category query without saving your changes, and then close the *Queries* database.

## Exploring Forms

Access tables are dense lists of raw information. It will probably be quite simple for you to work directly with tables in a database you create for your own use, but might be overwhelming for people who don't know much about databases. To make it easier to enter, retrieve, display, and print information, you can design *forms* through which people can interact with your database.

A form is essentially a window containing *controls* that either display information to people or accept information that people enter. Access provides a collection of standard Windows controls, such as labels, text boxes, option buttons, and check boxes. With a little ingenuity, you can create forms that look and work much like the dialog boxes in all Windows applications.

A form acts as a friendly interface for a table. Through a form, you can display and edit the records of the underlying table, or create new records. As with tables and queries, you can display forms in several views. The three most common views are:

- **Form view**, in which you enter data
- **Datasheet view**, which looks essentially like a table
- **Design view**, in which you work with the elements of the form to refine the way it looks and works

Most forms link to only one table, but if you want to link to multiple tables from one form, you can embed other forms (*subforms*) within a form (then referred to as the *main form*). The form shown above in Design view includes *label controls* containing text that appears in the form in Form view, and *text box controls* that will contain data from the underlying table. Although you can create a form from scratch in Design view, you will probably use this view most often to refine forms you create by using a wizard.

In this exercise, you will explore forms, subforms, and the available form controls.



**USE** the *Forms* database. This practice file is located in the *Documents\Microsoft Press\Access2007SBS\Exploring* folder.

**OPEN** the *Forms* database.

**1.** In the **Navigation Pane**, under **Forms**, double-click **Orders**.

The **Orders** form opens. This form consists of a main form and a subform. The main form displays information from the **Orders** table. The subform, which looks like a datasheet in the middle of the main form, displays the information from the **Order Details** table for the current record.

Unit Price	Quantity	Discount	Extended Price	Product
\$25.50	1	0%	\$25.50	Fiberglass loppers
*		0%		(New)

Subtotal:	\$25.50
Freight:	\$6.95
Total:	\$32.45



Next Record

- In the form window, on the record navigation bar, click the **Next Record** button a few times to display the next few records.

Notice that the subform changes with each click to display the items purchased on that order.

- Click the **Bill To** arrow to display a list of all customers who have placed orders.

The screenshot shows the 'Orders' form window. The 'Bill To' field is expanded to show a list of customer names: Carol Philips, Guido Pica, Carole Poland, Jeff Price, and Luciana Ramos. The 'Ship To' field is filled with 'Meng Phua', '2222 Montrose Ct.', 'Snohomish WA 72233', and 'USA'. The 'Salesperson' is 'Anderson, Nancy' and 'Ship Via' is 'Zippy's Express'. The 'Order ID' is '11113', 'Order Date' is '25-Jan-2007', 'Required Date' is '30-Jan-2007', and 'Shipped Date' is '26-Jan-2007'. A table below shows the order items:

Unit Price	Quantity	Discount	Extended Price	Product
\$12.00	1	0%	\$12.00	Lawn fertilizer
\$11.95	1	0%	\$11.95	Grass rake
\$9.95	4	0%	\$39.80	SureToGrow soil mix

Summary: Subtotal: \$99.65, Freight: \$21.95, Total: \$121.60. A 'Print Invoice' button is visible. The record navigation bar at the bottom shows 'Record: 4 of 64'.

This is an example of a list box control.

- In the **Navigation Pane**, under **Forms**, double-click **Products**.

The **Products** form opens in **Form view**.

The screenshot shows the 'Products' form window in Form view. It features a 'Preview product list' button and an 'Output product list as HTML' button. The form fields are:

- Product ID:** 1
- Product Name:** Magic Lily
- Supplier:** The Bulb Basket
- Category:** Bulbs
- Quantity Per Unit:** One dozen
- Unit Price:** \$44.00
- Units In Stock:** 40
- Units On Order:** 0
- Reorder Level:** 10
- Discontinued:**

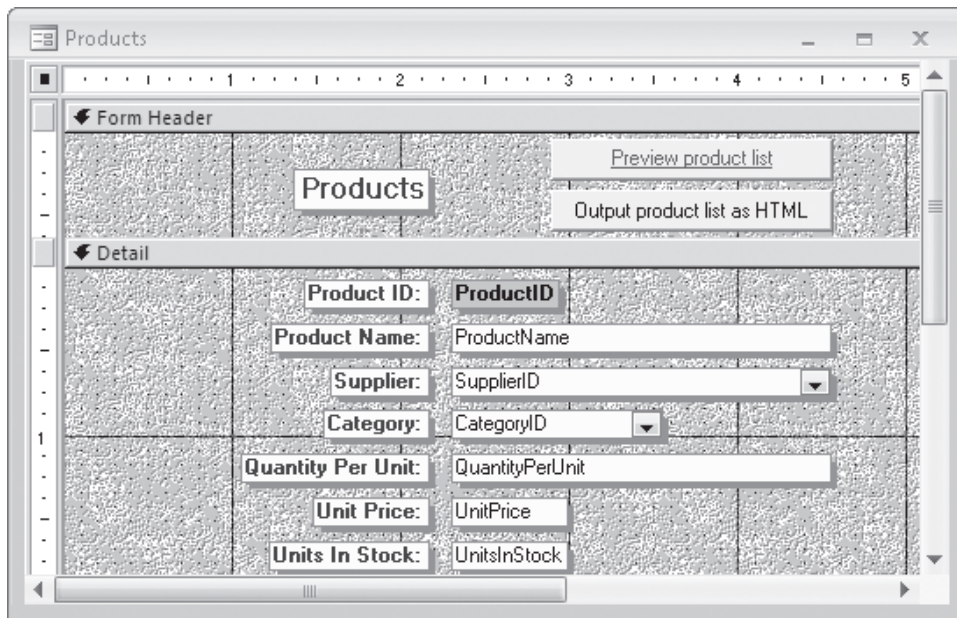
The record navigation bar at the bottom shows 'Record: 1 of 189'.

The purpose of this form is to edit or create product records.



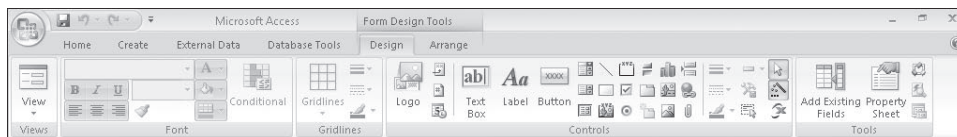
5. On the **Home** tab, in the **Views** group, click the **View** arrow, and then in the list, click **Design View**.

This is the view in which you can add controls to a form.



6. Note that two Form Design Tools contextual tabs, **Design** and **Arrange**, were added to the Ribbon when you switched to Design view. Switch to Form view and then back to Design view to see this happen.

Contextual tabs are available only when you are working on an object that needs the tools on it.



7. On the **Design** contextual tab, point to each of the buttons in the center section of the **Controls** group to display the name of the control in a ScreenTip. You can use these controls to assemble custom forms for your database.



**CLOSE** the Orders and Products forms without saving your changes, and then close the *Forms* database.

**Tip** To change the level of detail displayed in ScreenTips, click Access Options on the Office menu. The ScreenTip Style list at the top of the Popular page displays the detail options: *Show feature descriptions in ScreenTips*, *Don't show feature descriptions in ScreenTips*, and *Don't show ScreenTips*.

## Exploring Reports

You can display the information recorded in your tables in nicely formatted, easily accessible *reports*, either on your computer screen or on paper. A report can include items of information selected from multiple tables and queries, values calculated from information in the database, and formatting elements such as headers, footers, titles, and headings.

You can look at reports in four views:

- **Design View**, in which you can manipulate the design of a report in the same way that you manipulate a form.
- **Report View**, where you can scroll through the information in the report without the page breaks inserted when it is printed.
- **Print Preview**, in which you see your report exactly as it will look when printed.
- **Layout View**, which displays the data in the report (similar to Print Preview) but enables you to edit the layout.

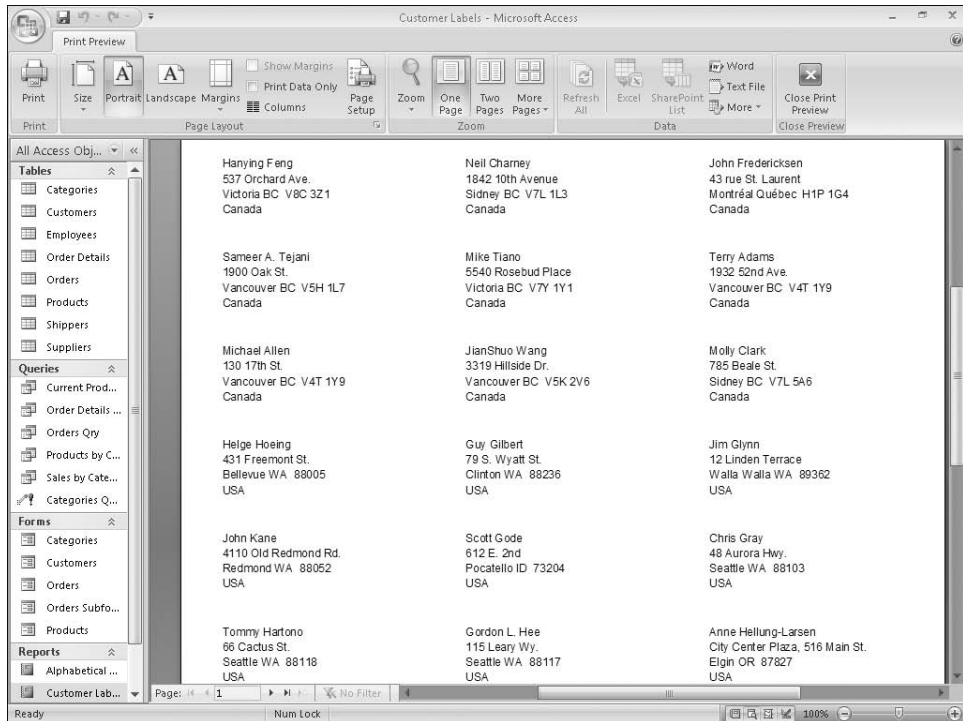
In this exercise, you will preview a report as it will appear when printed.



**USE** the *Reports* database. This practice file is located in the *Documents\Microsoft Press\Access2007SBS\Exploring* folder.

**OPEN** the *Reports* database.

1. In the **Navigation Pane**, under **Reports**, right-click **Customer Labels**, and then click **Print Preview**.  
The Customer Labels report opens.
2. Click the preview document to display a larger view of it.



**Tip** If the report is too small to read in Print Preview, you can adjust the zoom level by clicking the Zoom In button or dragging the Zoom slider that appears in the lower-right corner of the Print Preview window.

This report prints customer names and addresses in a mailing label format. You are looking at it in a view that is much like Print Preview in other Office programs.

**Tip** Access provides a wizard that can help you create a mailing label report. You can also use the Customers table as a source document for the Word 2007 mail merge tool to create labels like these.

3. In the **Navigation Pane**, right-click the **Sales by Category** report, and then click **Print Preview**.
4. Scroll through a few pages of the multi-page report by clicking the navigation buttons at the bottom of the window.



*Sales by Category*  
Sunday, October 01, 2006

**Berry bushes**  
Product

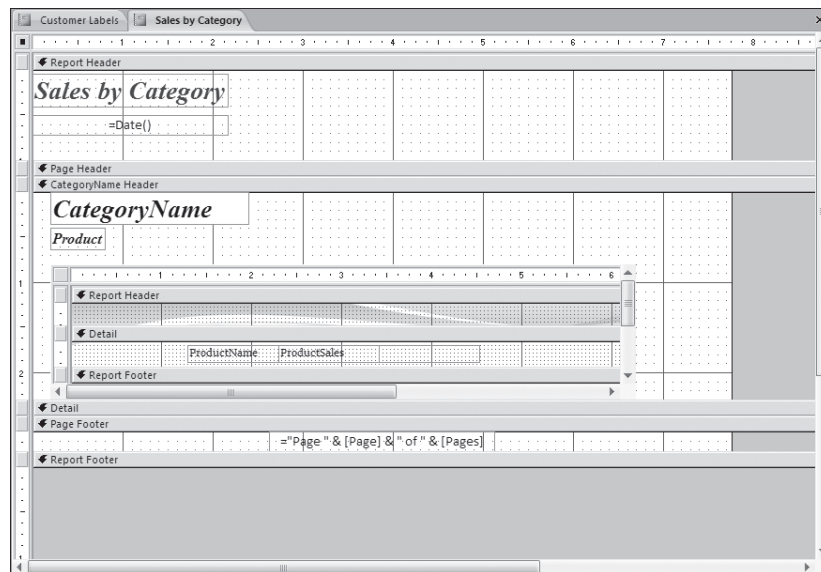
Blackberries	120.50
Gooseberries	145.00
<b>Total:</b>	<b>\$265.50</b>

**Bonsai supplies**  
Product



Design View

5. On the View toolbar, click the Design View button.



Access displays the report in Design view. In this view, the report looks similar to a form. The techniques you use to create forms can also be used to create reports.



**CLOSE** the Customer Labels report and the Sales By Category report without saving your changes, and then close the *Reports* database.

## Exploring Other Access Objects

Tables, queries, forms, and reports are the objects you will use most frequently in Access. You can use them to create powerful and useful databases. However, you can also use macros and modules to substantially extend the capabilities of Access.

**Tip** Previous versions of Access included Data Access Pages. Access 2007 doesn't include these objects. If you are familiar with Data Access Pages and need something like this, you can deploy your database to a collaboration site built with Microsoft SharePoint products and technologies, and use the tools provided there.

### Macros

A *macro* is a simple program that performs multiple actions. You can use a macro to have Access respond to an event such as the click of a button, the opening of a form, or the updating of a record. Macros can be particularly useful when you expect that other people who are less experienced with Access than you will work in your database. For example, you can make routine database actions, such as opening and closing forms or printing reports, available as command buttons on switchboards. And by grouping together an assortment of menu commands and having users carry them out with the click of a button, you can ensure that everyone does things the same way.

### Modules

More powerful than macros, *modules* are Microsoft Visual Basic for Applications (VBA) programs. VBA is a high-level programming language developed by Microsoft for the purpose of creating Windows programs. A common set of VBA instructions can be used with all programs in the Microsoft Office system, and each program has its own set as well. Whereas macros can automate four to five dozen actions, VBA includes hundreds of commands and can be extended indefinitely with third-party add-ins. You could use VBA to carry out tasks that are too complex to be handled with macros, such as opening an Excel spreadsheet and retrieving specific information.

**Tip** The Microsoft 2007 Office system installation CD and the online resources include a variety of sample databases that illustrate many of the principles of creating and using a database. You can use these to learn more about Access features, or as templates for your own databases.

One of these, the *Northwind 2007* database, is used as an example in many topics in the Access Help system, so it is a particularly good database for you to explore. You'll find a link to this database in the Sample category in the Getting Started window.


# Previewing and Printing Access Objects

Because Access is a Windows application, it interacts with your printer through standard Windows dialog boxes and drivers. This means that any printer that you can use from other programs can be used from Access, and any special features of that printer, such as color printing or duplex printing, are available in Access.

As you have seen in this chapter, you can use different Access objects—tables, forms, reports, and so on—to display the information stored in your database. Within each object there are several views available: Design view, Datasheet view, and so on. You can choose the view you want by selecting it from the View group on the Home tab (the views available will depend on the object that is active) or by clicking the buttons on the View toolbar at the right end of the status bar at the bottom of the window.

The print-related commands are available from the Microsoft Office Button or on the Ribbon when their use would be appropriate, which is determined by the object displayed and the current view of that object.

In this exercise, you will preview and print a table and a form.

 **USE** the *Print* database. This practice file is located in the *Documents\Microsoft Press\Access2007SBS\Exploring* folder.

**OPEN** the *Print* database.

1. In the **Navigation Pane**, expand the **Tables** list, and then double-click the **Employees** table to open it in Datasheet view.

	EmployeeID	FirstName	LastName	Title	Address	City	State	PostalCode	HomePhon
	1	Karen	Berg	Owner	765 - 20th Ave.	Seattle	WA	88102	(206) 555-0
	2	Kim	Akers	Head Buyer	890 NE 87th Dr.	Seattle	WA	88125	(206) 555-0
	3	David J.	Osborn	Assistant	789 Moss Bay B	Kirkland	WA	88033	(425) 555-0
	4	Chase	Carpenter	Sales Manager	123 Leary Wy.	Seattle	WA	88117	(206) 555-0
	5	Kirk	DeGrasse	Gardener	432 Pike St.	Seattle	WA	88119	(206) 555-0
	6	Nancy	Anderson	Sales	567 - 20th Ave.	Seattle	WA	88102	(206) 555-0
	7	Michael	Emanuel	Sales	4321 Old Redm	Redmond	WA	88052	(425) 555-0
	8	Karen	Furse	Buyer	4567 - 11th Ave	Seattle	WA	88133	(206) 555-0
	9	Sandeep	Katyal	Gardener	876 E. Prospect	Seattle	WA	88105	(206) 555-0
*		(New)							

This table contains information about nine employees. You can see that there are more fields than will fit on the screen.



Microsoft Office Button

- To display the first page of the datasheet printout, click the **Microsoft Office Button**, point to **Print**, and then click **Print Preview**.
- Click the preview document once to zoom in, so the table content is legible.

Employees 10/1/2006

EmployeeID	FirstName	LastName	Title	Address	City
1	Karen	Berg	Owner	765 - 20th Ave.	Seattle
2	Kim	Akers	Head Buyer	890 NE 87th Dr	Seattle
3	David J.	Osborn	Assistant	789 Moss Bay	Kirkland
4	Chase	Carpenter	Sales Manager	123 Leary Wy.	Seattle
5	Kirk	DeGrasse	Gardener	432 Pike St.	Seattle
6	Nancy	Anderson	Sales	567 - 20th Ave.	Seattle
7	Michael	Emanuel	Sales	4321 Old Redm	Redmond
8	Karen	Furse	Buyer	4567 - 11th Av	Seattle
9	Sandeep	Katyal	Gardener	876 E. Prospect	Seattle



Next Page

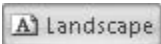
- At the bottom of the **Print Preview** window, click the **Next Page** button.  
This datasheet will print as three short pages if you print it with the current settings. Notice that the information on the second and third pages is a continuation of the table started on the first page.

Employees 10/1/2006

State	PostalCode	HomePhone	Birthdate	DateHired	Photograph
WA	88102	(206) 555-0100	12/8/1968	5/1/1992	EmplD1.bmp
WA	88125	(206) 555-0101	2/19/1952	8/14/1992	EmplD2.bmp
WA	88033	(425) 555-0102	8/30/1963	4/1/1992	EmplD3.bmp
WA	88117	(206) 555-0103	9/19/1958	5/3/1993	EmplD4.bmp
WA	88119	(206) 555-0104			
WA	88102	(206) 555-0105			
WA	88052	(425) 555-0106	5		
WA	88133	(206) 555-0107			
WA	88105	(206) 555-0108			

Employees

Notes
Karen is the ow
Kim received h
David complet
Chase is a grad
Kirk is a high-sc
Nancy is a part-
Michael is a full
Kari has a degr
Sandeep gradu



- On the **Print Preview** tab, in the **Page Layout** group, click the **Landscape** button.  
In Landscape orientation, the datasheet fits onto two pages.

**Tip** In this book, when we give instructions to implement a command we tell you on what tab and in which group the command button appears. When directing you to use multiple command buttons on the same tab, we might omit the tab name to avoid needless repetition.



- In the **Print** group, click the **Print** button.

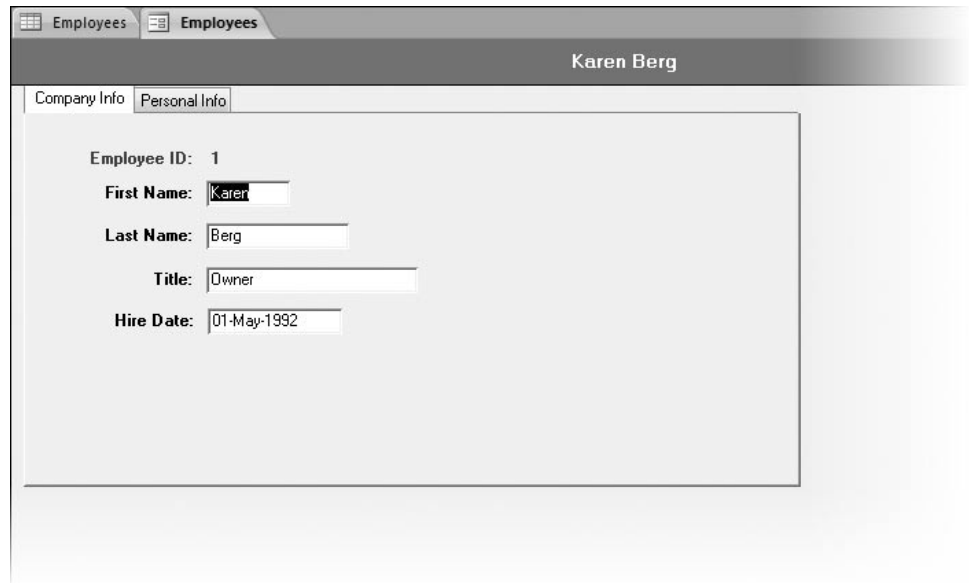
The Print dialog box opens. You can select the printer and set print options (such as the range of pages, specific records, or number of copies to be printed) from this dialog box.

**Tip** If you just want to send this datasheet to your default printer, click the Microsoft Office Button, point to Print, and then click Quick Print.



- Close the **Print** dialog box and then in the **Close Preview** group, click the **Close Print Preview** button.
- In the **Navigation Pane**, under **Forms**, double-click **Employees**.

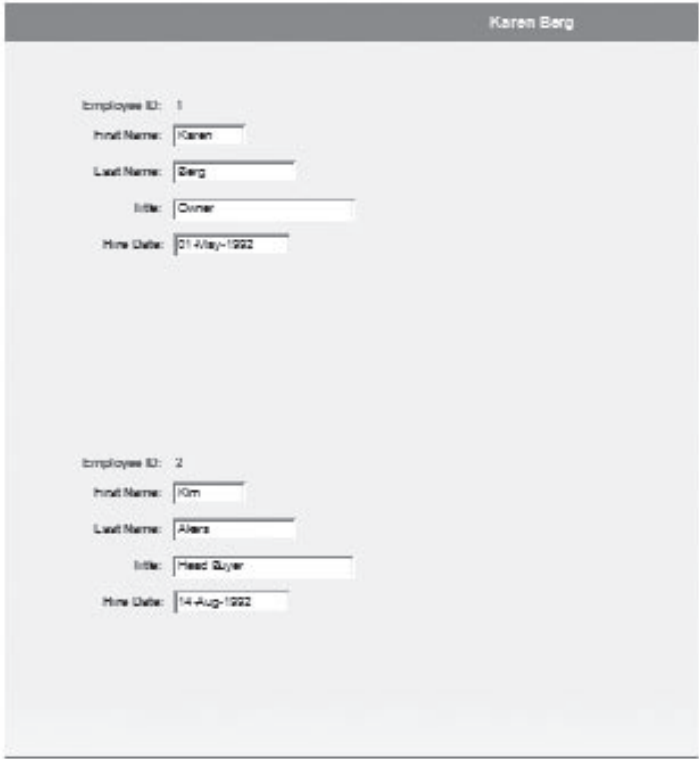
The Employees form opens in Form view.



The information for each employee appears on its own page. Notice that there are two tabs at the top of the page, one for company information and one for personal information.

- Click the **Personal Info** tab to see the information that is listed there, and then return to the **Company Info** tab.

10. Click the **Microsoft Office Button**, point to **Print**, and then click **Print Preview** to preview the printout.



The screenshot shows a Microsoft Access form titled "Karen Berg". The form displays two employee records in a form view. Each record has fields for Employee ID, First Name, Last Name, Title, and Hire Date.

Employee ID	First Name	Last Name	Title	Hire Date
1	Karen	Berg	Owner	01-May-1992
2	Jim	Alex	Head Buyer	14-Aug-1992

Notice that the preview shows information from only the active form tab. If you want to print information that appears on a different tab, you first need to select that tab.



Form View

11. On the **View** toolbar, click the **Form View** button to return to that view.

**See Also** You use essentially the same methods to print information displayed in different Access objects. For more information, see "Previewing and Printing a Report" in Chapter 8, "Working with Reports."

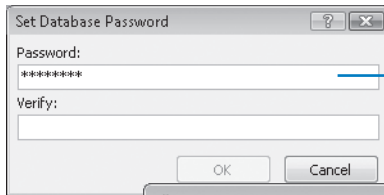


**CLOSE** the Employees table and the Employees form without saving your changes, and then close the *Print* database.

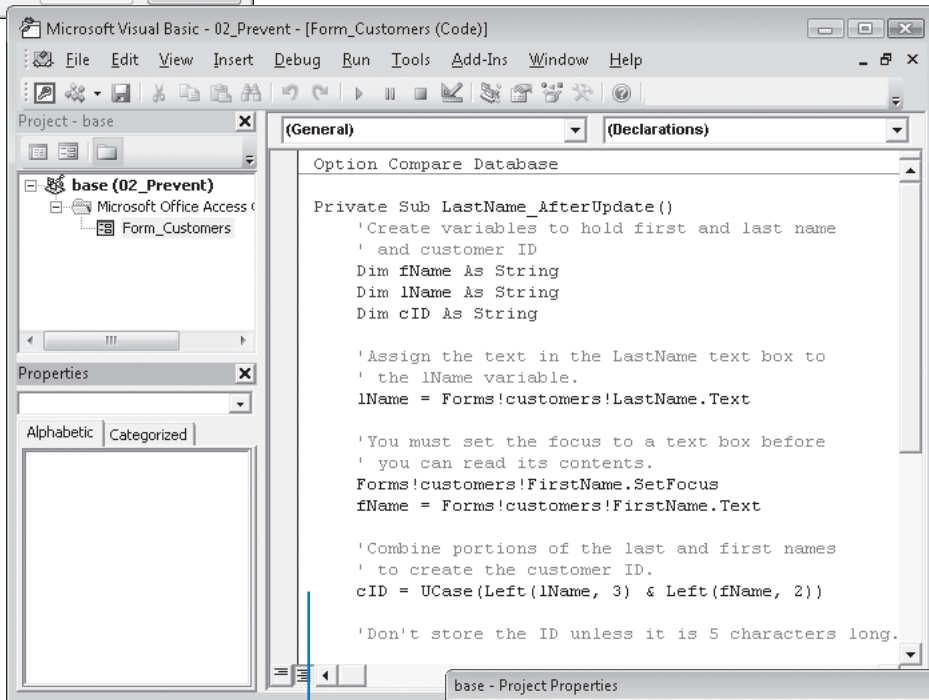
## Key Points

- Access is part of the Microsoft Office system, so the basic interface objects—menus, toolbars, dialog boxes—work much the same as other Office products or other Windows applications.
- A database is the computer equivalent of an organized list of information. The power of a database is in your ability to organize and quickly retrieve precise information from it, and then to manipulate, share, and distribute or use this information in various ways. In Access, data is organized in tables comprised of columns and rows, called fields and records. Access is a relational database, so you can treat the multiple tables in one database as a single storage area and easily pull information from different tables in whatever order and format that suits you.
- The types of objects you can work with in Access include tables, queries, forms, reports, macros, and modules. Tables are the core database objects and the purpose of every other database object is to interact with one or more tables.
- Every Access object has two or more views. For example, you view data in a table in Datasheet view and define how the data is displayed in Design view.
- One way to locate information in an Access database is to create and run a query. You use queries to find information so that you can view, change, or analyze it in various ways. You can view queries in Datasheet view or Design view. You can use the results of a query as the basis for other Access objects, such as a form or report.
- Forms make it easy for users to enter, retrieve, display and print information stored in tables. A form is essentially a window in which you can place controls that either give users information or accept information they enter. Forms can be viewed in Form view, Datasheet view, or Design view.
- Reports display information from your tables in a nicely formatted, easily accessible way, either on your computer screen or on paper. A report can include items of information from multiple tables and queries, values calculated from information in the database, and formatting elements such as headers, footers, titles, and headings. Reports can be viewed in Design view, Print Preview, and Layout Preview.
- Macros and modules substantially extend the capabilities of Access. Macros can be used to make routine database actions available as command buttons in forms, which help less experienced users work in your database. Modules are VBA programs. Whereas macros can automate many actions, VBA can be used to carry out tasks that are too complex to be handled with macros.

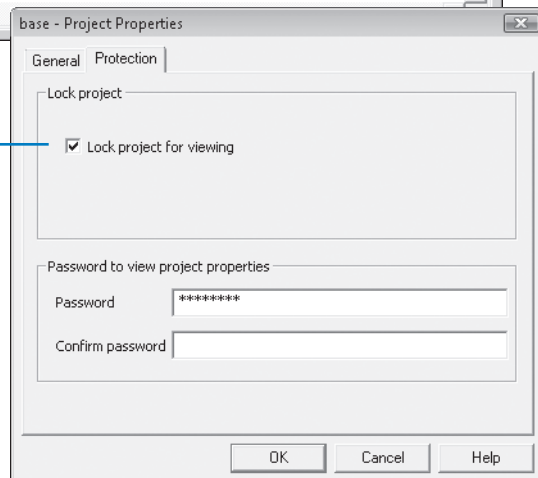
# Chapter at a Glance



Assign a password to a database, [page 274](#)



Prevent changes to  
database code,  
[page 277](#)





# 10 Securing and Sharing Information

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## In this chapter, you will learn to:

- ✓ Assign a password to a database.
  - ✓ Prevent changes to database code.
  - ✓ Secure a database for distribution.
- 

The need for *database security* is an unfortunate fact of life. As with your house, car, office, or briefcase, the level of security required for your database depends on the value of what you have and whether you are trying to protect it from curious eyes, accidental damage, malicious destruction, or theft.

The security of a company's business information can be critical to its survival. For example, you might not be too concerned if a person gained unauthorized access to your products list, but you would be very concerned if a competitor managed to see—or worse, steal—your customer list. And it would be a disaster if someone destroyed your critical order information.

Your goal as a database developer is to provide adequate protection without imposing unnecessary restrictions on the people who should have access to your database. The type of security required to protect a database depends to a large extent on how many people are using it and where it is stored. If your database will never be opened by more than one person at a time, you don't have to worry about the potential for corruption caused by several people trying to update the same information at the same time. If your database is sold outside of your organization as part of an application, you will want to take steps to prevent it from being misused in any way.

**Tip** In previous versions of Access you could set up *workgroups* and assign *permissions* to restrict the information available to members of each group and the actions they can perform. Access 2007 doesn't offer this feature.

Another way to protect a database is by securing the distribution channel; for example, by making it available from a password-protected Web site.

In this chapter, you will explore ways to protect data from accidental or intentional corruption, and ways to make it difficult for unauthorized people to gain access to private information. Then you will learn about ways of sharing databases among team members and backing up a shared database.

**See Also** Do you need only a quick refresher on the topics in this chapter? See the Quick Reference section at the beginning of this book.



**Important** Before you can use the practice files in this chapter, you need to install them from the book's companion CD to their default location. See "Using the Companion CD" at the beginning of this book for more information.

**Troubleshooting** Graphics and operating system-related instructions in this book reflect the Windows Vista user interface. If your computer is running Windows XP and you experience trouble following the instructions as written, please refer to the "Information for Readers Running Windows XP" section at the beginning of this book.

## Assigning a Password to a Database

You can prevent unauthorized users from opening a database by assigning it a *password*. Access will prompt anyone attempting to open the database to enter the password. The database will open only if the correct password is entered.

### Creating a Secure Password

You can use any word or phrase as a password, but to create a *secure password*, keep the following in mind:

- Passwords are case-sensitive.
- You can include letters, accented characters, numbers, spaces, and most punctuation.

A good password includes uppercase letters, lowercase letters, and symbols or numbers, and isn't a word found in a dictionary. For more information about strong passwords, visit

[www.microsoft.com/athome/security/privacy/password.mspx](http://www.microsoft.com/athome/security/privacy/password.mspx)

A secondary benefit of assigning a password is that your database will automatically be encrypted each time you close it, and decrypted when you open it and provide the correct password.

**Tip** In previous versions of Access, encrypting and decrypting a database was a separate function from assigning a password to it. If you open a database created in Access 2002 or Access 2003 from Access 2007, you will still have the option of encoding or decoding it, which is what the process was called in those versions.

It is easy to assign a database password, and certainly better than providing no protection at all, in that it keeps most honest people out of the database. However, many inexpensive password recovery utilities are available, theoretically to help people recover a lost password. Anyone can buy one of these utilities and “recover” the password to your database. Also, because the same password works for all users (and nothing prevents one person from giving the password to many other people), simple password protection is most appropriate for a single-user database.

To assign a password to or remove a password from a database, you must first open the database for *exclusive use*, meaning that no one else can have the database open. This will not be a problem for the database used in the following exercise, but if you want to set or remove a password for a real database that is located on a network share, you will need to make sure nobody else is using it.

### Database Encrypting

A database created in Microsoft Office Access 2007 is a *binary file*; if you open it in a word processor or a text editor, its content is mostly unreadable. However, if you look closely enough at the file, you can discover quite a bit of information. It is unlikely that enough information will be exposed to allow someone to steal anything valuable. But if you are concerned that someone might scan your database file with a utility that looks for key words that will lead them to restricted information, you can *encrypt* the file to make it really unreadable.

In previous versions of Access, the process of encoding (encrypting) a database and assigning a password were separate. In Access 2007, they have been combined as one command.

Encrypting a file prevents people who don't have a copy of Access from being able to read and perhaps make sense of the data in your file.

In this exercise, you will assign a password to a database.

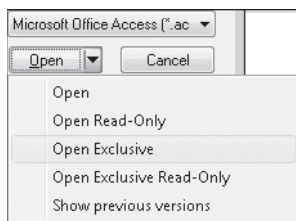


**USE** the *Password* database. This practice file is located in the *Documents\Microsoft Press\Access2007SBS\Securing* folder.

**BE SURE TO** start Access before beginning this exercise, but don't open the *Password* database yet.



1. Click the **Microsoft Office Button**, and then on the menu, click **Open**.
2. In the **Open** dialog box, navigate to the *Documents\Microsoft Press\Access2007SBS\Reports* folder, and click (don't double-click) the *Password* database. Then click the **Open** arrow, and in the list, click **Open Exclusive**.



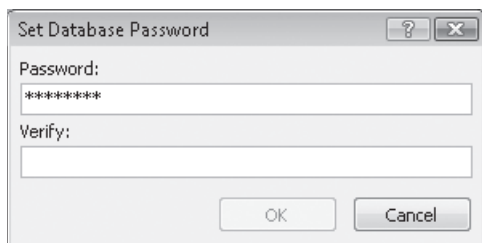
Access opens the database for your exclusive use—no one else can open the database until you close it.

3. On the **Database Tools** tab, in the **Database Tools** group, click the **Encrypt with Password** button.

The Set Database Password dialog box opens.

**Tip** Access 2007 includes many database-management tools. Familiarize yourself with the commands available from the Database Tools tab. From this tab you can, for example, display an object's dependencies, document the entire database, and update the linked tables.

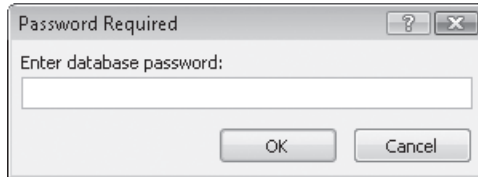
4. In the **Password** box, type **2007!SbS**, and then press the **Tab** key.



Access disguises the characters of the password as asterisks as you type them, to protect against other people seeing your password.

5. In the **Verify** box, type **2007!Sbs**. Then click **OK**.
6. Close and reopen the database.

The Password Required dialog box opens.



7. In the **Enter database password** box, type **2007\_SBS**, and then click **OK**.  
Access warns you that the password is not valid.
8. In the **Microsoft Office Access** message box warning you that the password you entered is not valid, click **OK**.
9. In the **Password Required** dialog box, type the correct password (**2007!Sbs**), and then click **OK**.

The database opens.



**CLOSE** the *Password* database.

**Tip** To remove a password from a database, open the database exclusively, entering the password when prompted to do so. On the Database Tools tab, in the Database Tools group, click the Decrypt Database button. Enter the password, and then click OK. Access removes the password, allowing anyone to open the database.

## Preventing Changes to Database Code

If you have added Microsoft Visual Basic for Applications (VBA) procedures to a database, you certainly don't want users who aren't qualified or authorized to make changes to your code. You can prevent unauthorized access in two ways: by protecting your VBA code with a password, or by saving the database as a Microsoft Database Executable (ACCDE) file. If you set a password for the code, it remains available for editing by anyone who knows the password. If you save the database as an ACCDE file, people using the database application can run your code, but they can't view or edit it.

**See Also** For information about saving a database as an executable file, see "Securing a Database for Distribution" later in this chapter.

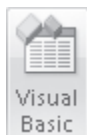
In this exercise, you will secure the VBA code in a database by assigning a password to it.



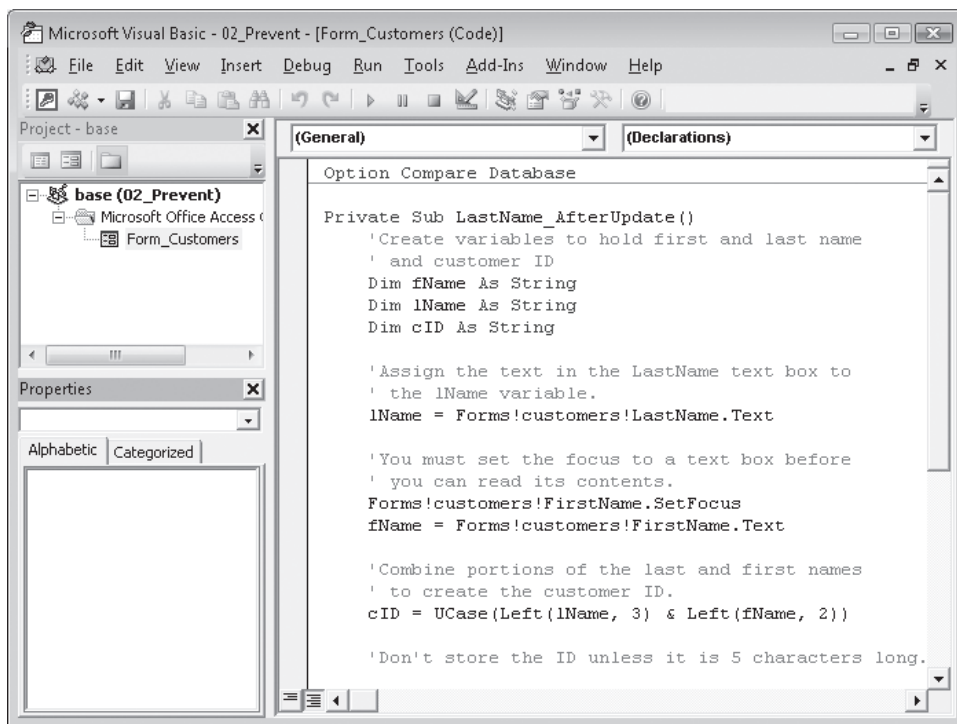
**USE** the *Prevent* database. This practice file is located in the *Documents\Microsoft Press\Access2007SBS\Securing* folder.

**BE SURE TO** start Access before beginning this exercise.

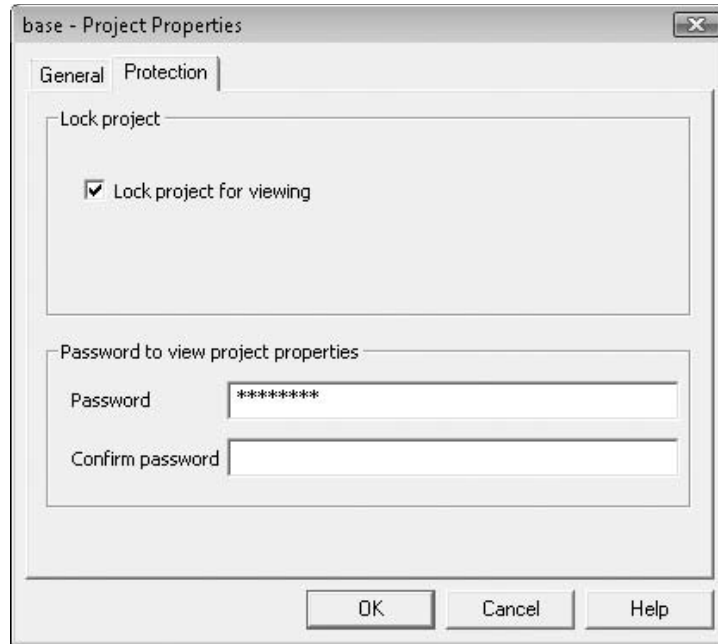
**OPEN** the *Prevent* database.



1. On the **Database Tools** tab, in the **Macro** group, click the **Visual Basic** button.  
The Visual Basic Editor starts.



2. On the **Tools** menu, click **base Properties**.  
The Project Properties dialog box opens.
3. On the **Protection** tab, select the **Lock project for viewing** check box.
4. In the **Password** box, type **2007!VbA**, and then press the **Tab** key.



Access disguises the characters of the password as asterisks as you type them, to protect against other people seeing your password.

**Tip** The Lock and Password settings operate independently. Selecting the Lock Project For Viewing check box requires the user to enter the password to view the project. If a password has been set and the Lock Project For Viewing check box is not selected, the user can view the project code but has to enter the password to open the Project Properties dialog box.

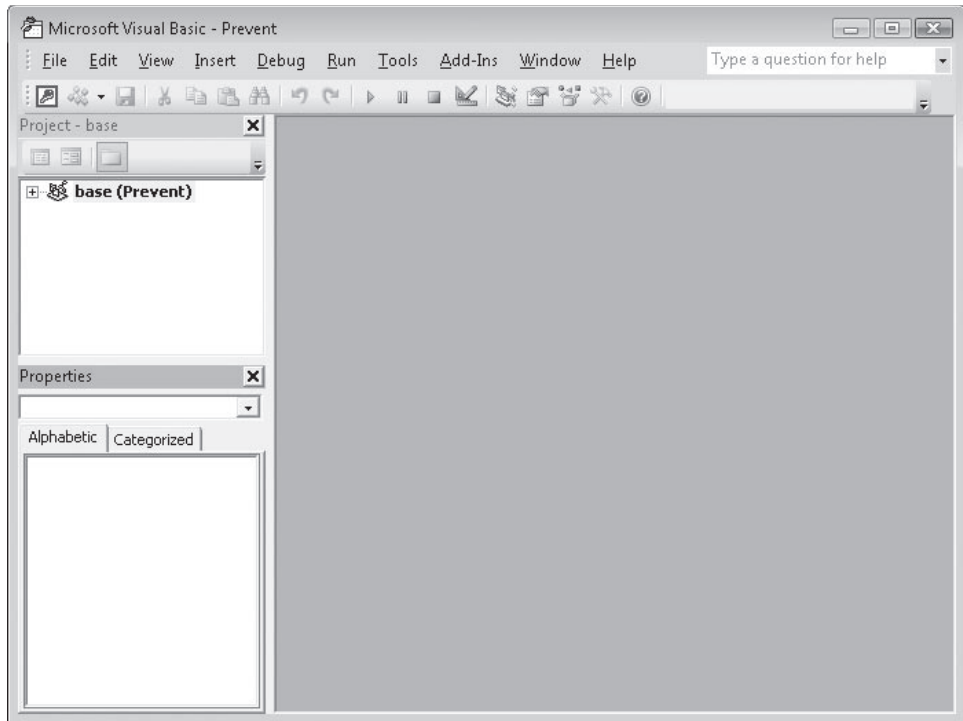
5. In the **Confirm Password** box, type **2007!VbA**, and then click **OK**.

The password is set, but you won't have to enter it again until the next time you open the database and attempt to edit the VBA code.

6. Close the Visual Basic Editor, and then close the database.

7. Reopen the database, and then on the **Database Tools** tab, in the **Macro** group, click the **Visual Basic** button (or press **Alt + F11**).

The Visual Basic Editor opens, displaying only the name of the project, and not the Code window.



Expand

8. Click the **Expand** button to the left of the *Prevent* database project.  
The Password dialog box opens.
9. In the **Password** dialog box, type **2007!VbA**, and then click **OK**.  
The project expands to display its components.

**Tip** You need to enter the password only once per database session. In other words, you won't have to enter it again unless you close and reopen the database.



**CLOSE** the *Prevent* database.

**Tip** To remove the password, on the Visual Basic Editor Tools menu, click Base Properties. On the Protection tab, clear the Lock Project For Viewing check box, delete the asterisks from the two password boxes, and then click OK.



## Securing a Database for Distribution

When a database is used locally, on a local area network (LAN), or on a wide area network (WAN), you have considerable control over who has access to it. But if you send the database out into the world, on its own or as part of a larger application, you lose that control. There is no way you can know who is using the database or what tools they might have available to hack into it. If this is of concern to you, consider distributing your database as an Access Database Executable (ACCDE) file.

**Tip** In previous versions of Access this was called a *Microsoft Database Executable (MDE)* file. The functionality and creation process are the same. If you open an older (Access 2002 or Access 2003) MDB file in Access 2007, a Make MDE command appears in the Database Tools group on the Database Tools tab in place of the Make ACCDE command that appears when you're working in an Access 2007 database.

Suppose you want to make a database available for use by several organizations in the area, but the organizations don't want their members to be able to change the database objects and perhaps "break" things. Saving a database as an ACCDE file compiles all modules, removes all editable source code, and compacts the destination database. Users of the ACCDE file can view forms and reports, update information, and run queries, macros, and VBA code. They *cannot* do the following:

- View, edit, or create forms, reports, or modules in Design view.
- Add, delete, or change references to other objects or databases.
- Modify VBA code.
- Import or export forms, reports, or modules.

Access can save a database as an ACCDE file only if it is in Access 2007 format. Access 2002 and Access 2003 databases can be saved as MDE files.

You can't convert a database from ACCDE format to the source ACCDB format, so after saving a database as an ACCDE file, retain the original ACCDB file in a safe place. If you need to make changes to forms, reports, or VBA code, you will have to make them in the original database and then save it as an ACCDE again.

## Splitting a Database for Distribution

To help database performance and reliability in a shared implementation, such as when multiple people will access a database over a network at the same time, you can split the database into two parts: A back-end database containing the tables and a front-end database containing the forms, queries, and reports. To split a database:

1. Make a copy of the database on your computer, and then open it.
2. On the **Database Tools** tab, in the **Move Data** group, click the **Access Database** button. Then in the Database Splitter wizard, click **Split Database**.
3. In the **Create Back-end Database** dialog box, specify a name and storage location for the back-end database, click **Split**, and then click **OK** in the message box telling you that the split was successful.

Distribute the front-end file (the one you started with) to the database users. It will automatically connect to the back-end file (stored in the location you specified in step 3).

In this exercise, you will secure a database by saving it as a distributable ACCDE file.

**USE** the *Distribute* database. This practice file is located in the *Documents\Microsoft Press\Access2007SBS\Securing* folder.

**OPEN** the *Distribute* database.



1. On the **Database Tools** tab, in the **Database Tools** group, click the **Make ACCDE** button.
2. In the **Save As** dialog box, navigate to the *Documents\Microsoft Press\Access2007SBS\Securing* folder, and then click **Save**.

The process takes only a moment; no message alerts you when it is completed.

3. Click the **Microsoft Office Button**, and then click **Open**.
4. In the **Open** dialog box, navigate to the *Securing* folder.

Access has created a database executable file named *Distribute.accde*. The file icon displays a blue lock over the standard Access icon.



**Tip** The *Distribute.laccdb* file indicates that your database is locked, because it is currently open. When you close the database, the *.laccdb* file will disappear.

5. Double-click the *Distribute* database executable file, and if the **Microsoft Office Access Security Notice** message box appears, click **Open**.
6. In the **Navigation Pane**, right-click one object of each type (table, query, and so on), and note whether the **Design View** button on the shortcut menu is active.

The Design View button is available for tables, queries, and macros, but unavailable for all other object types. This prevents you or another user from making any design changes to forms or reports, or changing any VBA code associated with the database.



**CLOSE** the *Distribute* database.

**Important** When creating an ACCDE file from a database with multiple users, first make sure that all other users close the database. You will know that someone else has the database open if you locate it in Windows Explorer and see a file of the same name, with an *.laccdb* (locked Access database) extension. If you open the database anyway, when you attempt to create the accde file you will be warned that the database is already opened by someone else (the username and machine name are provided) and told to try again later.

## Collaborating Through SharePoint

If your organization has a Microsoft Office SharePoint Server 2007 collaboration site, you can manage data collection and distribution through that site, by making your Access database available online, in one of these ways:

- Migrate a database to a collaboration site. The Move To SharePoint Site wizard creates SharePoint lists linked to your database. The linked data can be accessed and managed from the collaboration site or from Access.
- Publish a database to a collaboration site. You can publish your database to a SharePoint library, and provide forms, queries, and reports through which other people can update or extract information.

After you make the database available to collaboration site users, they can work with the information as they would with any other SharePoint list content—online or offline—but they can also view the content as it would appear in Access, without first starting the program.

One benefit of sharing a database in this way is that permissions are regulated by SharePoint rather than set for the individual database. Another is that you can track changes made to the data by site users and recover previous versions of information, thus safeguarding against lost data in a way that you can't with Access alone.

Conversely, you can create a database from existing SharePoint lists, and integrate workflow processes with a database.

## Key Points

- Your goal as a database developer is to adequately protect your database and the information it contains, without imposing unnecessary restrictions on the people who use it. The type of security required to protect a database depends on how many people are using it and where it is stored.
- You can encrypt a database, which does not prevent it from being opened and viewed in Access, but does keep people who don't have a copy of Access from reading or making sense of the data.
- You can assign a password to your database to prevent unauthorized users from opening it. The database is automatically encrypted when you assign it a password.
- If your database contains VBA procedures, you can protect your VBA code by assigning it a password, or by saving the database as an Access Database Executable (ACCDE) file. If you set a password for the code, it remains available for editing by anyone who knows the password. If you save the database as an ACCDE file, people using the file can run your code, but they can't view or edit it.
- Other members of your organization can input and extract data through a SharePoint collaboration site. By making database information available through SharePoint, you can regulate permissions, track changes, and manage versioning in ways that you can't within Access.

# Index

## A

**.accdb file extension, 9, 40**

**ACCDE (Access Database Executable) files**

defined, 277, 285

distributing databases as, 281

saving databases as, lxxv

**Access**

closing, 14

Help button, xxxiii–xxxiv

integration with other Office programs, 10

objects. See Access objects

portability of skills, 9

size restrictions, viewing, 14

specifications, viewing, 14

starting, 13

starting, on Windows XP, xvi

versions of, outdated, updating databases from, 57

**Access button (Import group), 55**

**Access Database Executable (ACCDE) files**

defined, 277, 285

distributing databases as, 281

saving databases as, lxxv

**Access objects**

defined, 124, 288

displaying all instances of, 14

events recognized by, 124

export formats available for, viewing, 80

exporting, 79

importing (see importing)

forms. See forms; AutoForms

macros. See macros

modules. See modules

queries. See queries; action queries; append queries; crosstab queries; delete queries; make-table queries; select queries; update queries

reports (see reports)

shortcuts, creating with custom groups (see custom groups)

tables (see tables)

uses for, 9

views (see views)

**Access Options window, 269**

**action queries. See also append queries; crosstab queries; delete queries; make-table queries; queries; select queries; update queries**

converting select queries to, 204

creating, lvii, 204

defined, 179, 285

types of, 161

**actions**

basic, 124

defined, 286

for objects, displaying list of, 125

**Add Existing Fields button, 234**

**Add Group button, 260**

**add-ins for exporting to PDF/XPS files, 89**

**Add Item button, 260**

**address books (Outlook), importing from, 74**

**Advanced Filter Options button, 154, 157**

**Advanced Filter/Sort command, liv**

**aggregate functions, 174, 285**

**Align Left button, 230**

**Align Text Left button, 230**

**aligning**

form controls, l, 113

report columns, lix

report text, lix, 230

**Allow Zero Length field property, 180**

**Analyze Table wizard, 211**

**analyzing performance, 211, 213**

**And operator, 152**

**append queries, 161, 285. See also action queries; crosstab queries; delete queries; make-table queries; queries; select queries; update queries**

**applications, database**

defined, 285

macros in, 40

specialized commands in, 40

templates for (see templates)

when appropriate, 37

**Apply Filter button, liv**

**arithmetic operators, 285**

+ (add), 152

& (concatenate), 152

/ (divide), 152

**arithmetic operators (continued)**

- \* (multiply), 152
- (subtract), 152

**arrows, button, 3****Attachment data type, 46****AutoFormat dialog box, 117****AutoFormat gallery, 117****AutoFormats**

- creating, li
- creating from forms, 118
- form, 117

**AutoForms, 129****automated functions. See macros****AutoNumber data type**

- defined, 45
- Long Integer setting for, 184

**autonumber fields, lv****Avg function, 174–75**

# B

**backing up databases, lvii, 210–11****backward compatibility, 57****BE SURE TO paragraphs, xxiv****binary files, 275, 285****binding controls together, l, 109****blank databases, 42****blank fields, 180****Boolean data type**

- defined, 181, 208
- formatting display of, 184
- toggleing between yes and no, 183

**bound controls, l, 285****Browse For A Location button, 42****Build button, 170****built-in functions, 167****buttons, general, 267**

- arrows on, 3
- gray, 6
- inactive, 6
- margin icons for, xxiv
- name bar, 3, 290
- option, 288
- ScreenTips, displaying, xxxiii
- size and shape of, 6
- switchboard, lxii

**buttons, Quick Access Toolbar**

- adding, 268
- moving, 270
- removing, 271

**buttons, specific**

- Access (Import group), 55
- Add Existing Fields, 234
- Add Group, 260
- Add Item, 260
- Advanced Filter Options, 154, 157
- Align Left, 230
- Align Text Left, 230
- Apply Filter, liv
- Browse For A Location, 42
- Build, 170
- Center, 238
- Close, 3, 33
- Close Print Preview, 248
- Close Switchboard, 255
- Combo Box, 122
- Control Wizards, 134
- Copy, 99
- Create E-mail, 64
- Database Documenter, 214
- Datasheet View, 182
- Date & Time, 230, 237
- Delete, 208
- Descending, 146–47
- Design View, 44, 185, 229
- Encrypt With Password, 276
- Excel (Import group), 58
- Export To Excel Spreadsheet, 83
- Export To RTF File, 88
- Export To Text File, 90
- Export To Word, 88
- Filter By Form, 155
- First Record, 139
- Form, 129
- Form View, 34
- Format Painter, 122
- Group & Sort, 231–32
- Image, 120
- Insert Page Number, 239
- Label, 121, 238
- Landscape, 32
- Line, 232
- Make ACCDE, 282
- Microsoft Office, 2, 5, 11, 32, 57, 288
- Microsoft Office Access Help, xxxiii–xxxiv
- Minimize, 3
- More, 72, 93
- More Forms, 132
- Move All, 132, 171
- Move Up, 270
- Multiply, 168

New Record, 128  
 Next Record, 18, 139  
 Paste, 99–100  
 Print, 33  
 Property Update Options, 190  
 Query Design, 163, 175, 206  
 Query Wizard, 203  
 Remove Database Password And  
   Encryption, 277  
 Report Design, 234  
 Report Wizard, 222  
 Restore Down/Maximize, 3  
 Run, 22, 165, 174, 176, 204–05, 209  
 Save, 48, 182, 236  
 Selection, 149  
 SharePoint List, 62, 85  
 Show Table, 164  
 Show Table Of Contents, xxxv  
 Shutter Bar Open/Close, 14  
 Subform/Subreport, 134, 241  
 Summary Options, 225  
 Switchboard Manager, 253  
 Text Box, 244  
 Text File, 66  
**bytes, restricting number fields to, 185**

## C

**calculating with queries, 174**  
**calculations**  
   comparison operators, 152  
   creating, 166, 170, 191–92  
   defined, 286  
   functions, entering, 167  
   logical operators in, 152  
   multiplying, 168  
   re-labeling, 169  
**captions in form controls, 112**  
**categories, custom, 259**  
   creating, lxii, 260  
   default groups in, 260  
   groups in (see custom groups)  
   shortcuts, adding, lxii  
   plus signs next to (see subdatasheets)  
**CD companion to book**  
   how to use, xxiii  
   practice files on, xxv  
   resources available on, xxvii

**Center button, 238**  
**centering report text, 238**  
**chapter thumb tabs, how to use, xxiii**  
**Choose Builder dialog box, 126**  
**Close button, 3, 33**  
**CLOSE paragraphs, xxiv**  
**Close Print Preview button, 248**  
**Close Switchboard button, 255**  
**closing**  
   Access, 14  
   databases, xl  
   document windows, xl  
   Print Preview, xli, 33, 248  
   tables, xlii  
**code, protecting, 277**  
**coding with VBA, 128**  
**collapsing subdatasheets, 17**  
**Collect Data Through E-mail Messages wizard, 64**  
**collecting data through e-mail, 64**  
**Color gallery, 111**  
**colors, 111**  
**columns, table**  
   adding, 48  
   data types, changing, 46  
   defined, 10  
   freezing in place, xliii, 51  
   hiding, xliii, 50  
   locking into position, 51  
   moving, liii  
   names, editing, 47  
   names, spaces in, 45  
   as primary keys, 45  
   renaming, 44  
   resizing, xliii, 17, 48, 197  
   restoring after hiding, 50  
   selecting adjacent, 50  
   setting width to widest entry, 17  
   size, setting, 46  
   sorting together, 147  
   unhiding, 50  
   unique identifiers, 45  
**Combo Box button, 122**  
**combo boxes, 195**  
   adding to forms, li  
   defined, 285  
   inserting, 122  
**comma-delimited text files**  
   defined, 285  
   importing, 66  
   importing from, xlv

**command buttons**

- defined, 285
- in switchboards, inserting, 255
- in switchboards, On Click property for, 258

**command lists, 3****commands**

- accessing via the Quick Access Toolbar (see Quick Access Toolbar)
- defined, 267
- displaying list of, 269

**commands, Quick Access Toolbar**

- adding, 268
- moving, 270
- removing, 271

**Compact And Repair Database utility, 211–12****compacting databases, lvii****companion CD**

- how to use, xxiii
- practice files on, xxv
- resources available on, xxvii

**comparison operators, 285**

- = (equal to), 152
- > (greater than), 152
- >= (greater than or equal to), 152
- < (less than), 152
- <= (less than or equal to), 152
- Like, 152
- <> (not equal to), 152

**conditional formatting, adding to controls, lii, 119****connection speed required for Office 2007, xxix****constants, 152, 285****contacts (Outlook), importing, 75****control captions**

- adding, li
- defined, 112
- editing, l

**control labels, 24**

- changing, l
- deleting, l
- inserting, 121
- selecting, l
- sizing, l, li

**control menu, 4****control properties**

- defined, 108, 152, 285
- displaying, 110
- editing, xlix
- setting, l, 244

**control source, 108, 285**

- options, displaying with Expression Builder, 122

**Control Wizards button, 134****controls**

- aligning, l, 113
- background properties, l
- background style, 111
- binding, l, 109
- changing grouped, 109
- color, 111
- combo boxes (see combo boxes)
- conditional formatting, adding to, lii, 119
- defined, 23, 103, 285, 287
- deleting, 113
- deselecting, 112
- font, 109
- formatting, xlix, lii
- formatting of, copying, 122
- graphics, adding, li
- grouping, l, 109
- label, 24, 103, 121
- layout, changing, l
- Logo, 120
- margins, 114
- modifying simultaneously, 233
- moving, xlix, li
- positioning precisely, 117
- Property sheet, opening, 121
- record selector, deleting, lii
- scroll bars, deleting, lii
- selecting, 110
- selecting all, 111
- selecting multiple, 111
- shadow effect, 112
- Size Mode property, 121
- sizing, li, lii
- sizing to fit, li, lii, 113, 121
- space between, inserting, l
- standard, 23
- text box, 24, 103, 290
- theme, 118
- types of, 119
- unbound, 122, 290
- unbound, inserting, 244
- undeleting, 243
- wizards, adding without, 122

**Convert Database Into dialog box, 57****converting databases from previous versions, 57****Copy button, 99****copying**

- data, to other programs, 97
- formatting, 122



- records, 98
- SharePoint lists, 60
- table structure to new table, xlii, 42
- tables, 202
- Count function, 174, 175**
- Create E-mail button, 64**
- Create New dialog box, 254**
- Create tab, 7**
- cropping in forms, avoiding, 121**
- crosstab queries, 160, 285. See also action queries;**  
  - append queries; delete queries; make-table queries; queries; select queries; update queries
- Currency data type, 183**
- custom categories, 259**
  - creating, lxii, 260
  - default groups in, 260
  - groups in (see custom groups)
  - plus signs next to (see subdatasheets)
  - shortcuts, adding, lxii
- Custom Filter dialog box, 150**
- custom groups**
  - default, 260
  - defined, 259, 285
  - hiding, 261
  - shortcuts to objects, adding, 261
  - viewing, 261
- custom menus, 264**
- custom toolbars, 264**
- Customize AutoFormat dialog box, 117**
- customizing**
  - forms, 131
  - Quick Access Toolbar, 268

## D

- data**
  - entering in tables, 44
  - entering via list (see lookup lists)
  - exporting (see exporting)
  - importing (see importing)
  - reorganizing, 48
  - summarizing by adding Totals row, lv, 174
- data access pages, 30**
- data formatting in fields. See masks**
- data source, 122. See also forms**
- data types, 180**
  - Attachment, 46
  - AutoNumber, 45, 184
  - Boolean, 208 (see Yes/No data type)
  - changing, 46, 181
  - Currency, 183
  - Date/Time, setting, 183
  - field size, restricting, 184
  - for number fields, changing, 185
  - Number, setting, 181
  - setting, lv
  - Text, as default, 181
  - Yes/No (see Yes/No data type)
  - for ZIP codes, 46
- database applications**
  - defined, 285
  - macros in, 40
  - specialized commands in, 40
  - templates for (see templates)
  - when appropriate, 37
- Database Documenter button, 214**
- Database Documenter utility, 211**
- database objects. See also specific object types**
  - defined, 124, 288
  - deleting, xlii
  - displaying all instances of, 14
  - events recognized by, 124
  - export formats available for, viewing, 80
  - exporting, 79
  - importing (see importing)
  - renaming, xlii
  - shortcuts, creating with custom groups (see custom groups)
  - uses for, 9
  - views (see views)
- database programs, 286. See also databases**
- database properties, 42, 180, 212**
- Database Properties dialog box, 212**
- database records, attaching files to, 46**
- database security, 273. See also passwords**
  - defined, 286
  - designing, 273
  - warnings, 12
- Database Tools tab, 8**
- database window, 14**
  - defined, 286
  - key combination for displaying, 265
  - tabs in, 4
- databases**
  - as Access Database Executable (ACCDE) files, 281
  - applications as (see database applications)
  - backing up, lvii, 210–11
  - blank, 42
  - closing, xl

**databases (continued)**

- code, protecting, 277
- compacting, lvii, 211–12
- complexity of, 9
- content, complying with normalization rules, 41
- controlling features available in, 262
- creating, from templates, 40
- creating, manually, 41–42
- default folder, 38
- documenting, lviii, 214
- earlier versions, migrating, xlv
- elements in (see database objects)
- encoding/decoding, 275
- encrypting, 275
- entering data in, xlii
- file extensions, 40
- folder for storing, 38
- formatting, xxxix
- forms (see forms)
- importing, 55
- importing information to (see importing)
- linking data in, 60
- locking, 277
- migrating from previous versions, 57
- multiple, opening, 82
- naming, 40
- navigation pages (see forms)
- non-Access, importing from, 76
- objects (see database objects)
- opening, xl, xlii, 13
- opening for exclusive use, 275–76
- opening multiple, 82
- overview of, 10
- password-protecting (see passwords)
- performance, analyzing, lvii
- populating, 37
- restricting availability in, 262
- saving, 42
- saving as ACCDE files, lxv
- saving in previous formats, 57
- splitting for distribution, lxv, 282
- startup options (see startup options)
- structure, creating with templates, 38 (see also templates)
- tables (see tables)
- templates for (see templates)
- title, changing, 263
- Trusted Locations list, adding to, xxxix
- user-created dialog boxes in (see forms)

**Datasheet view**

- defined, 286
- layout of, 15
- moving directly to row in, 18
- opening tables in, 15, 48
- running queries in, 22

**Datasheet View button, 182****datasheets**

- columns (see columns, table)
- displaying, in Print Preview, 32
- embedding in other tables (see subdatasheets)
- navigating, xli

**Date & Time button, 230, 237****date and time**

- default year, 183
- in reports, inserting, lviii, 230, 237
- regional settings, changing, 183

**Date And Time dialog box, 230, 237****Date/Time data type, 183****date filters, 151****dBASE files**

- importing to, 76
- importing from, xlvi

**decoding databases, 275****Default Database Path dialog box, 38****default template location, 39****Delete button, 208****delete queries, 161. See also action queries;**

- append queries; crosstab queries;**
- make-table queries; queries; select**
- queries; update queries**

- converting select queries into, 208
- creating, lvii, 206
- defined, 286
- preventing accidental use of, 210
- relationships and, 209
- testing, 208

**deleting**

- adjacent records, 47
- database objects, xlii
- fields from queries, lv, 164
- form control labels, l
- form controls, 113
- form layouts, 112
- primary keys, 45
- with queries (see delete queries)
- Quick Access Toolbar commands, lxiii
- record selector control, from forms, lii
- records, precautions for, 206
- scroll bar controls from forms, lii

- table rows, xliii, 47
- tables, xlii, 43
- text boxes, from reports, lix
- delimited text files, 65**
  - defined, 286
  - exporting data as, 92
  - importing, 66
- delimiters, 286**
- Descending button, 146–47**
- deselecting**
  - defined, 286
  - form controls, 112
- design grid**
  - columns, widening, 169
  - connecting lines in, 162
  - defined, 286
  - fields, adding, liv, 164
  - fields, copying all to, 165
  - fields, hiding in results datasheet, 162
  - filtering with, 156
  - related tables in, 162
- Design view**
  - displaying queries in, 22
  - forms, opening in, xli, 108
  - layout of, 45
  - opening tables in, 15
  - switching to, 44
- Design View button, 44, 185, 229**
- dialog boxes**
  - AutoFormat, 117
  - Choose Builder, 126
  - Convert Database Into, 57
  - Create New, 254
  - creating, in databases (see forms)
  - Custom Filter, 150
  - Customize AutoFormat, 117
  - Database Properties, 212
  - Date And Time, 230, 237
  - Default Database Path, 38
  - Documenter, 214
  - Edit List Items, 197
  - Edit Switchboard Item, 255
  - Encode As, 91
  - Export, 81
  - Export XML, 94
  - Expression Builder, 166
  - File Open, 55, 58, 66, 72, 76
  - Grouping Intervals, 224
  - help for, accessing, xxxiv
  - HTML Output Options, 96
  - Icon Browser, 263
  - Import Objects, 56
  - Import Specification, 67
  - Import XML, 70
  - Navigation Options, 260
  - New Query, 170
  - New Style Name, 118
  - Page Numbers, 239
  - Password, 280
  - Password Required, 277
  - Performance Analyzer, 213
  - Print, 248
  - Print Table Definition, 215
  - Project Properties, 278
  - Row Height, 50
  - Save As, 45, 47
  - Save Export Steps, 82
  - Set Database Password, 276
  - Show Table, 163, 175, 206
  - Summary Options, 225
  - Theme Settings, 118
  - Unhide Columns, 50
  - user-created in databases (see forms)
  - in Windows XP, navigating, xvii
- Dialog Box Launcher, 3, 7, 286**
- digital signatures, 286**
- disabling form fields, 131**
- displaying reports, 27. See also reports**
- divider lines, 232**
- docking, 286**
- Documenter dialog box, 214**
- documenting databases, lviii, 214**
- Documents folder**
  - as default database location, 38
  - in Windows XP, xv
- Does Not Equal filters, liii**
- downloading templates, 39**
- drop-down lists**
  - allowing users to add items to (see combo boxes)
  - creating, lv, 195
  - filtering selections in, lvi
  - hiding columns in, lvi
  - limiting to preset items, 198
  - multi-column, creating, lvi, 198
  - restricting entries to, lvi
  - selecting options in, 197
  - values in, cycling through, 200
- duplicate queries, 160, 286**

# E

[Edit List Items dialog box, 197](#)

[Edit Switchboard Item dialog box, 255](#)

## editing

- column names, 47
- form captions, 112
- reports, 227
- source of form data, 122
- switchboards, 255

[e-mail forms, xlv, 64. See also forms](#)

[embedded macros, 30. See also modules](#)

- in database applications, 40
- enabling, xxxix
- export formats available for, 79
- settings, changing, xl
- storage of, 40
- trusted nature of, 40
- viewing, 256

[embedding datasheets in other tables. See subdatasheets](#)

[empty strings, 180, 286](#)

[Encode As dialog box, 91](#)

[Encrypt With Password button, 276](#)

[encrypting databases, 275, 286](#)

[ending. See closing](#)

## entering data

- via list (see lookup lists)
- in tables, 44

[environment, 2](#)

## events

- basic, 124
- defined, 286
- firing, 287
- for objects, displaying list of, 124–25

## Excel

- exporting to, xlvii, 82
- importing from, xlv, 57–58
- pasting data into, 97

[Excel button \(Import group\), 58](#)

[exclusive use, 286](#)

[exercises in book, system requirements, xxix](#)

[exiting. See closing](#)

## expanding

- Help topics, xxxvi
- subdatasheets, 17

[Export dialog box, 81](#)

[Export Text wizard, 91](#)

[Export To Excel Spreadsheet button, 83](#)

[Export To RTF File button, 88](#)

[Export To Text File button, 90](#)

[Export To Word button, 88](#)

[Export XML dialog box, 94](#)

## exporting data

- defined, 286–87
- to Excel, 82
- to PDF/XPS files, 89
- reminder for, setting, 86
- as RTF (Rich Text Format), 87
- saving as Outlook task, 86
- saving steps for, 86
- to SharePoint, 84
- as text, with formatting, 90
- as text file, delimited, 92
- to text files, 90
- to Word, 87
- to XML files, 93

[exporting forms, xlvii](#)

[exporting objects, 79](#)

[exporting tables, xlvii, 81](#)

- to Excel workbooks, xlvii
- to formatted text files, xlviii
- to HTML files, xlviii
- to SharePoint sites, xlvii
- to XML files, xlviii

[Expression Builder, 170, 191, 287](#)

- control source options, displaying in, 122

[Expression Builder dialog box, 166](#)

## expressions

- arithmetic operators, 152, 285
- comparison operators, 152, 285
- creating, 166, 170, 191–92
- defined, 286
- functions, entering, 167
- inserting for reports, 245
- logical operators, 152
- multiplying, 168
- re-labeling, 169

[Extensible Markup Language \(XML\) files](#)

- defined, 287
- exporting data to, 93
- exporting tables to, xlviii
- importing from, xlv, 69
- schema, 69, 289
- tags in, 68
- transforms, applying, 70

## F

**field properties, liv, 180**

### fields

- adding, xliii
- adding, by typing in first row, 43
- adding, to queries, liv, 164
- data format, specifying (see masks)
- data in, specifying precisely (see validation rules)
- data types (see data types)
- default, in new tables, 43
- defined, 287
- empty strings, 180
- form, 131
- formatting of data, specifying (see masks)
- joins in, 164
- moving all to queries, 207
- multivalued, 42
- number, rounding in, 186
- number, settings for, 184
- properties in. See field properties
- renaming, xliii
- resizing, xlii
- selecting, lvi, 193
- size, changing, 185
- size, restricting, 184
- table (see columns, table)
- tables, linking to, 196
- validation rules (see validation rules)
- values in, storing multiple

**file formats, 9, 40**

**File menu. See Office menu**

**file names, 40**

**File Open dialog box, 55, 58, 66, 72, 76**

**files, HTML, 71**

- attaching to database records, 46
- exporting tables to, xlvi
- importing from, xlvi
- importing to, 72
- parsing, 72
- structure tags, viewing, 95

**files, XML**

- defined, 287
- exporting data to, 93
- exporting tables to, xlvi
- importing from, xlvi, 69
- schema, 69

- tags in, 68
- transforms, applying, 70

**Filter By Form button, 155**

**filtering, 143**

- commands, location of, 149
- by date, 151
- defined, 287
- with design grid, 156
- drop-down lists, selections in, lvi
- by forms, liv, 153
- lookup lists, selections in, lvi
- on multiple criteria, 148, 156
- multiple fields, liv, 151
- Navigation Pane, 16
- results, displaying in forms/reports, 151
- vs. sorting or queries, 162
- syntax, 155
- tables, 148

**filters**

- date, 151
- Does Not Equal, liii
- Navigation Pane, changing, 16
- removing, liii, 150
- results, displaying in forms, 151
- results, displaying in reports, 151
- saving as queries, liv, 148
- text, liii

**finding. See also filtering**

- templates, 39
- text, 202

**fine-tuning form control placement, 117**

**firing events, 287**

**First Record button, 139**

**fixed-width text files**

- defined, 287
- ease of importing, 65

**flat databases, 9, 287**

**folders**

- adding to trusted locations, 12
- default, for saving database files, 38

**fonts**

- in forms, 109
- in reports, 237

**Form button, 129**

**form control captions**

- adding, li
- defined, 112
- editing, l

**form control labels, 24**

- changing, l
- deleting, l
- inserting, 121
- selecting, l
- sizing, l, li, lii

**form control menu, 4****form control properties**

- defined, 108, 152, 285
- displaying, 110
- editing, xlix
- setting, l, 244

**form control source, 108, 285****form controls. See also label controls; text box controls**

- aligning, l, 113
- background properties, l
- background style, 111
- color, 111
- combo boxes (see combo boxes)
- defined, 23, 103, 285, 287
- deleting, 113
- deselecting, 112
- font, 110
- formatting, xlix, lii
- formatting of, copying, 122
- graphics, adding, l
- layout, changing, l
- Logo, 120
- margins, 114
- modifying simultaneously, 233
- moving, xlix, li
- positioning precisely, 117
- Property sheet, opening, 121
- record selector, deleting, lii
- scroll bars, deleting, lii
- selecting, 110
- selecting all, 111
- selecting multiple, 111
- shadow effect, 112
- Size Mode property, 121
- sizing, lii
- sizing to fit, lii, 113, 121
- space between, inserting, l
- standard, 23
- theme, 118
- types of, 119
- unbound, 122, 290
- unbound, inserting, 244
- undeleting, 243
- wizards, adding without, 122

**form properties**

- displaying, 110
- editing multiple, xlix
- inheritance of, 108

**Form view, 24, 108****Form View button, 34****Format Painter button, 122****formatting**

- copying, 122
- databases, xxxix

**forms. See also AutoForms**

- AutoFormats, 117
- AutoFormats, creating, li
- AutoFormats, creating from existing forms, 118
- binding of, 108
- captions, editing, 112
- columns, sizing to fit, 138
- control properties, xlix
- control source, 108, 285
- controls (see form controls)
- creating, xlix, lii, 105–106, 129
- creation of, 104
- customizing, 131
- data source, editing, 122
- defined, 103, 287
- design, saving, l
- Design view, xli, 108
- Detail area, expanding, li
- displaying, 123
- displaying by default, 263
- elements, resizing, 115
- in e-mail messages, xlv, 64
- export formats available for, 79
- exporting to RTF documents, xlviii
- exporting to Word, 87
- fields in, 108
- fields in, hiding, 131
- filter results, displaying in, 151
- filtering by, 153
- fonts in, 109
- Form view, 108
- label controls, 24
- labels, xlix
- layouts, deleting, 112
- layouts, pointer shape and, 114
- logos, inserting, 120
- navigating, xli
- for navigation only (see switchboards)
- nested (see subforms)
- overview of, 23

- pictures, resizing to avoid cropping, 121
- PivotTable, 156
- pointer shape and, 114
- Property sheet, undocking, 110
- record selectors, hiding, 124
- record source, 108
- vs. reports, 220
- scroll bars, hiding, 131
- sections in, resizing, 119
- sections of, 115
- Stacked layout, 108
- styles for, 117–18
- subforms (see subforms)
- switchboards (see switchboards)
- views for, 24, 108 (see also Datasheet view; Design view; Form view)
- wizards, creating with, 132

### formulas

- comparison operators, 152
- creating, 166, 170, 191–92
- defined, 286
- functions, entering, 167
- logical operators in, 152
- multiplying, 168
- re-labeling, 169

### freezing columns, xlili, 51

### functions, 152

- aggregate, 174, 285
- automated (see macros)
- Avg, 175
- built-in, 167
- calculation, entering, 167
- Count, 174, 175
- defined, 287
- expressions, entering, 167
- formulas, entering, 167
- Max, 174
- Min, 174
- StDey, 174
- Sum, 176, 176, 245
- Var, 174

## G

### galleries

- AutoFormat, 117
- Color, 111

### Get External Data wizard, 55, 66, 69, 72

### Getting Started With Microsoft Office Access task pane, 11

### glossary terms, formatting of, xxiv

### graphics on form controls, li

### gray buttons, 6

### Group & Sort button, 231–32

### grouping

- controls, l, 109
- report data, lix
- report information, 224, 232

### Grouping Intervals dialog box, 224

### grouping levels, 287

### groups, 287

## H

### hard disk requirements for Office 2007, xxviii

### headers and footers, 235

### height, table row, 49

### Help

- categories, displaying, xxxv
- for dialog boxes, accessing, xxxiv
- displaying, xxxiii, 14
- on the Internet, xxxvii
- ScreenTips and, xxxiii, 289
- searching, xxxvi
- Table Of Contents, xxxv
- topics, displaying, xxxiv
- topics, expanding, xxxvi
- topics, printing, xxxvi

### help

- with book/companion CD, xxxiii
- with Word (see Help)

### hiding

- columns, xlili
- custom groups, 261
- form fields, 131
- Navigation Pane, 14
- record selectors in forms, 124, 131
- Ribbon, xxxix
- scroll bars in forms, 131
- subdatasheets, 17
- table columns, 50

### Home tab, 5

### horizontal lines, lix, 232

### HTML files, 71

- defined, 287
- exporting tables to, xlviii

**HTML files (continued)**

- importing from, xlvi
- importing to, 72
- parsing, 72
- structure tags, viewing, 95

**HTML Output Options dialog box, 96****HTML tags, 71, 287, 290****I****Icon Browser dialog box, 263****ID field, 43****Image button, 120****Import Exchange/Outlook wizard, 74–75****Import HTML wizard, 72****Import Objects dialog box, 56****import operations, saving and running, xlvii, 56****Import Specification dialog box, 67****Import Spreadsheet wizard, 58****Import Text wizard, 66****Import XML dialog box, 70****Important paragraphs, xxiv****ImportError tables, 59****importing, 53–54. See also linking to data**

- address books, from Outlook, 74
- from comma-delimited text files, xlv
- contacts, from Outlook, 75
- databases, 55
- data with Table Analyzer Wizard, 57
- dBASE files, 76
- from dBASE files, xlvi
- errors when, 59
- Excel worksheets, 57–58
- from Excel worksheets, xliv
- HTML files, 72
- from HTML files, xlvi
- non-Access databases, 76
- Outlook folders, 74
- from Outlook folders, xlvi
- queries, 54
- query results, 55
- saving steps for, 56, 75
- SharePoint lists, xliv, 60–62
- skipping fields when, 75
- tables, xliv, 54–55
- text files, 65–66
- XML files, 70
- from XML files, xlvi, 69

**inactive buttons, 6****inner joins, 164****input masks. See also InputMask property**

- characters in, 186
- creating, 188
- defined, 288
- optional vs. required characters in, 189
- for phone numbers, creating, 188
- placeholder text in, 190
- restricting entry length with, 191
- working with, 190

**Input Mask wizard, lv, 188****InputMask property, 186. See also input masks****Insert Page Number button, 239****inserting**

- combo box controls, 122
- label controls, 121

**installing practice files, xxix****interface elements in exercises, formatting**

- of, xxiv

**intranet, 287****J****joins, inner/outer, 164****K****key combinations, 264****L****Label button, 121, 238****label controls, 24, 103, 121****labeling expressions, 169****labels, form. See controls, form****LAN (local area network), 287****Landscape button, 32****landscape orientation, switching to, 32****layout, saving changes to, 42****Layout view**

- defined, 248
- viewing reports in, lxi

**Like operator, 152****Line button, 232****lines in reports, lix, 232**



**linking to data. See also importing**

- defined, 60, 287
- with universal naming convention (UNC) paths, 60

**lists, lookup**

- allowing users to add items to (see combo boxes)
- creating, lv, 195
- filtering selections in, lvi
- hiding columns in, lvi
- limiting to preset items, 198
- multi-column, creating, lvi, 198
- restricting entries to, lvi
- selecting options in, 197
- values in, cycling through, 200

**lists, SharePoint, xlv, 60, 62****local area network (LAN), 287****locking**

- databases, 277
- table columns, 51

**logical operators, 152**

- And, 152
- Like, 152
- Not, 152
- Or, 152

**Logo control, 120****lookup lists**

- allowing users to add items to (see combo boxes)
- creating, lv, 195
- filtering selections in, lvi
- hiding columns in, lvi
- limiting to preset items, 198
- multi-column, creating, lvi, 198
- restricting entries to, lvi
- selecting options in, 197
- values in, cycling through, 200

**Lookup wizard**

- adding, 198
- defined, 287
- starting, 195

**M****macros, 30. See also modules**

- in database applications, 40
- defined, 287
- embedded (see embedded macros)
- enabling, xxxix
- export formats available for, 79

- settings, changing, xl
- storage of, 40
- Switchboard.closeSB, 256
- Trust Center settings, changing, xl
- trusted nature of, 40
- viewing, 256

**mailing label reports, 28****main form, 287****main reports, 233, 288****Make ACCDE button, 282****make-table queries, 161, 288. See also action queries; append queries; crosstab queries; delete queries; queries; select queries; update queries****many-to-many relationships, 288****mapped network drives, 288****margins**

- in form controls, 114
- in reports, changing, 232

**masks. See also InputMask property**

- characters in, 186
- creating, 188
- defined, 288
- optional vs. required characters in, 189
- for phone numbers, creating, 188
- placeholder text in, 190
- restricting entry length with, 191
- working with, 190

**Max function, 174****MDE (Microsoft Database Executable) files. See ACCDE (Access Database Executable) files****memory requirement for Office 2007, xxviii****menus, preventing changes to, 264****Microsoft Knowledge Base, xxxvii****Microsoft Office Access**

- closing, 14
- Help button, xxxiii–xxxiv
- integration with other Office programs, 10
- objects. See Access objects
- portability of skills, 9
- size restrictions, viewing, 14
- specifications, viewing, 14
- starting, 13
- starting, on Windows XP, xvi
- versions of, outdated, updating databases from, 57

**Microsoft Office Access objects. See also specific object types**

- defined, 124, 288
- displaying all instances of, 14

**Microsoft Office Access objects (continued)**

- events recognized by, 124
- export formats available for, viewing, 80
- exporting, 79
- importing (see importing)
- shortcuts, creating with custom groups (see custom groups)
- uses for, 9
- views (see views)

**Microsoft Office Access Help button, xxxiii–xxxiv****Microsoft Office Button, 2, 5, 11, 32, 57, 288****Microsoft Office Diagnostics utility, 211****Microsoft Office Excel**

- exporting to, xlvii, 82
- importing from, xliv, 57–58
- pasting data into, 97

**Microsoft Office Online, 11****Microsoft Office Outlook**

- contacts, importing, 75
- folders, importing from, xlvi, 74
- tasks, saving export operations as, 86

**Microsoft Office SharePoint Server**

- exporting data to, 84
- import details, saving as a specification, 61
- lists, importing, xliv, 60, 62
- sites, exporting to, xlvii
- valid site addresses, 61

**Microsoft Office Word**

- exporting data to, 87
- pasting data into, 97

**Microsoft Press Knowledge Base, xxxiii****Microsoft Product Support Services, xxxvii****Microsoft Visual Basic for Applications (VBA), 30. See also modules**

- comments in code, 128
- password protecting code, lxiv
- removing passwords from, lxv
- returning to Access from, 128

**migrating databases from previous versions, xliv, 57****Min function, 174****Minimize button, 3****minimizing Navigation Pane, 14****modules, 30. See also macros**

- defined, 288
- export formats available for, 79

**monitor requirement for Office 2007, xxviii****More button, 72, 93****More Forms button, 132****Move All button, 132, 171****Move Up button, 270****multiplication operator, 168****Multiply button, 168****multivalued fields, 42****My Documents folder. See Documents folder**

## N

**name bar**

- buttons on, 3
- defined, 290

**named ranges, 288****naming**

- databases, 40
- expressions, 169
- reports, 226
- switchboards, 254
- table columns, 44
- table columns, with spaces, 45

**navigating**

- datasheets, xli
- forms, xli
- in Print Preview, 248
- subforms, 139
- Table Of Contents in Help window, xxxv
- tables, xl, 18, 43

**Navigation Options dialog box, 260****Navigation Pane**

- filter, changing, 16
- groups, collapsing/expanding, 16
- hiding, 14
- minimizing, 14
- moving, 14
- view, changing, 16

**nested forms**

- adding, lii
- creating, lii, 134
- defined, 289
- exporting to Excel, 82
- navigating, 139
- related fields in, 135
- selecting, 137

**New Query dialog box, 170****New Record button, 128****New Style Name dialog box, 118****Next Record button, 18, 139****normalization rules, complying with, 41****Not operator, 152****null fields, 180**

**Number data type, 181**  
**number fields**  
 bytes, specifying as entry, 185  
 data types, changing, 185 (see also data types)  
 Field Size property, setting, lv  
 rounding in, 186  
 settings for, 184  
**numbered steps, formatting conventions used in, xxiv**  
**numbers, sorting, 145**

## O

**objects. See also specific object types**  
 defined, 124, 288  
 displaying all instances of, 14  
 events recognized by, 124  
 export formats available for, viewing, 80  
 exporting, 79  
 importing (see importing)  
 shortcuts, creating with custom groups (see custom groups)  
 uses for, 9  
 views (see views)  
**Office 2007, xxviii**  
**Office menu, 2, 5**  
**Office Online Web site, xxxv**  
**On Click property, 258**  
**one-to-many relationships, 288**  
**one-to-one relationships, 288**  
**OnTheCD icon, xxiv**  
**OPEN paragraphs, xxiv**  
**opening**  
 Access, 13  
 databases, xl, xlii, 13  
 databases, exclusively, 275–76  
 databases, multiple, 82  
 forms, in Design view, 108  
 Help, 14  
 switchboards, 257  
 tables, xxxix  
 tables, in Datasheet view, 15, 48  
 tables, in Design view, 15  
 templates, xli  
**operating system required for Office 2007, xxix**  
**operators. See also expressions**  
 arithmetic, 152, 285  
 comparison, 152, 285  
 logical, 152

**option buttons, 288**  
**Or operator, 152**  
**orientation, changing, xli, 32**  
**outer joins, 164**  
**Outlook**  
 contacts, importing, 75  
 folders, importing from, xlvi, 74  
 tasks, saving export operations as, 86  
**overlapping windows, 4**

## P

**page numbers in reports, lx. See also reports**  
**Page Numbers dialog box, 239**  
**page orientation, xli, 32**  
**painting formatting, 122**  
**parameter queries, 160, 288**  
**parsing**  
 defined, 288  
 HTML files, 72  
**Password dialog box, 280**  
**Password Required dialog box, 277**  
**passwords, 274**  
 assigning, lxiii, 276  
 defined, 288  
 encoding and, 275  
 for VBA code, lxiv  
 for VBA code, removing, lxv  
 for VBA code, testing, lxv  
 recovering, ease of, 275  
 removing, lxiv, 277, 280  
 secure, creating, 274  
 testing, lxiv  
 when to use, 275  
**Paste button, 99–100**  
**Paste Errors table, 98**  
**pastings data from other programs, 97**  
**PDFs, 89**  
**Performance Analyzer dialog box, 213**  
**Performance Analyzer utility, 211**  
**permissions, 288**  
**phone numbers, input masks for, 188**  
**pictures in forms, 121**  
**PivotTable forms, 156**  
**plain text files**  
 comma-delimited, importing from, xlvi  
 delimited, 65  
 delimited, exporting as, 92  
 exporting as, 90

**plain text files (continued)**

- exporting as, with formatting, 90
- file extensions for, 66
- fixed-width, 65
- formatted, exporting tables to, xlvi
- importing, 66
- importing, enclosing fields in quotation marks, 65

**populating databases, 37, 288****Portable Document Format (PDF) files, 89****practice files, xxv**

- installing, xxix
- in Windows XP, location of, xv

**previewing. See also Print Preview**

- reports, xli, lviii, lxi, 227
- subreports, 246
- tables, xli

**primary keys, 45, 288****Print button, 33****Print dialog box, 248****Print Preview, 247. See also previewing**

- adjusting magnification in, 28
- closing, xli, 33, 248
- displaying datasheets in, 32
- displaying reports in, 27
- navigating in, 248
- zooming in, 28, 248

**Print Table Definition dialog box, 215****printing, 31**

- changing page orientation when, 32
- Help topics, xxxvi
- reports, lxi, 248

**processor requirement for Office 2007, xxviii****program interface elements in exercises, formatting of, xxiv****Project Properties dialog box, 278****properties, 288**

- Field Size, setting, lv
- InputMask, 186
- On Click, 258
- Size Mode, 121

**properties, field, liv**

- Allow Zero Length, 180
- Required, 180

**properties, form, 121**

- database, setting, 212
- displaying, 110
- editing multiple, xlix
- inheritance of, 108

**Property Update Options button, 190****protecting databases. See passwords; security****publisher, 288**

# Q

**queries, 160. See also action queries; append queries; crosstab queries; delete queries; make-table queries; select queries; update queries**

- aggregate functions, 174
- append, 161, 285
- calculating with, 174
- creating, liv, 163, 203
- creating, with Query wizard, 170
- crosstab, 160, 285
- defined, 288
- design grid (see design grid)
- displaying, 20
- displaying in Design view, 22
- duplicate, 160
- export formats available for, 79
- fields, adding, liv, 164
- fields, copying all to, 165
- vs. filtering or sorting, 162
- importing, 54
- joins and, 164
- make-table, 161, 288
- parameter, 160
- properties, displaying, 21
- properties, viewing, xli
- results, hiding fields in, 173
- running, xli, liv, 165, 176, 204
- saving, 20, 169
- saving filters as, liv, 148
- table fields, moving all to, 207
- tables, adding to, liv, 163, 164
- type, displaying, 21
- unmatched, 160

**queries, action**

- converting select queries to, 204
- creating, lvii, 204
- defined, 179, 285
- types of, 161

**queries, delete, 161**

- converting select queries into, 208
- creating, lvii, 206
- defined, 286
- preventing accidental use of, 210
- relationships and, 209
- testing, 208

**queries, select, 160**

- converting into delete queries, 208
- converting into action queries, 204

- defined, 289
- running, 205
- View button in, 205
- queries, update, 161, 202**
  - creating, lvi, 203
  - defined, 290
  - View button in, 205
- Query Design button, 163, 175, 206**
- query results, importing, 55**
- Query wizard, 170–71**
- Query Wizard button, 203**
- Quick Access Toolbar, 2, 267**
  - commands, 2
  - commands, adding, lxii, 268
  - commands, deleting, lxiii, 271
  - commands, repositioning, lxiii, 270
  - customizing, 268
  - defined, 289
  - Ribbon commands, adding to, lxiii
- Quick Launch bar. See Quick Access Toolbar**
- Quick Reference, how to use, xxiii**
- quitting. See closing**
- quotation marks, importing text files with, 65**

## R

- RAM requirement for Office 2007, xxviii**

- record selectors**

- defined, 289
- hiding, 124, 131

- record source, 289**

- records**

- adjacent, working with, 47
- copying, 98
- database, attaching files to, 46
- defined, 289
- deleting, precautions for, 206
- deleting, with delete queries (see delete queries)
- first, bug when adding, 43
- ID values incrementing in first record, 43
- primary keys, 45
- sorting, from smallest to largest, liii
- sorting, from within a form, 147
- sorting, in alphabetical order, liii, 146
- sorting, in descending order, 146
- sorting, on multiple fields, 147
- unique identifiers, 45
- unsaved, 43

- records, table, 10**

- default height, setting to, 50
- deleting, xlili, 47
- height, setting to standard, 50
- increasing height, 49
- navigating, 18
- plus signs next to (see subdatasheets)
- resizing all, xlili
- setting to standard height, xlili

- regional settings, 183**

- relational databases, 9. See also databases**

- defined, 289
- design of, 53

- relationships, 133**

- defined, 289
- delete queries and, 209

- Remove Database Password And Encryption button, 277**

- renaming**

- database objects, xlili
- table columns, 44
- tables, xlili, 43

- reorganizing tables, 48**

- replacing text, 202**

- Report Design button, 234**

- Report View, 27**

- Report wizard, lviii**

- starting, 222
- vs. self-created reports, 221

- Report Wizard button, 222**

- reports, 219**

- aligning text in, lix
- blank, starting, 234
- centering text in, 238
- columns, aligning, lix
- controls, modifying multiple simultaneously, 233
- controls, moving as group, lix
- creating, lviii
- creating, from scratch, 233
- currency, formatting text as, 245
- date and time, inserting, lviii, 230, 237
- defined, 289
- Design view grid, changing, lx
- displaying, 27
- editing, 227
- elements, moving, 229
- elements, sizing to fit, 237
- export formats available for, 79
- expressions, inserting, 245
- fields, adding, 222

**reports (continued)**

- filter results, displaying in, 151
- font properties, setting, 237
- formatting, 229
- vs. forms, 220
- gridlines, displaying, 235
- grouping and sorting data in, lix
- grouping information in, 221, 224, 232
- groups, adding, 235
- headers and footers, 235
- horizontal lines, inserting, lix
- layout, selecting, 226
- in Layout View, lxi
- lines, inserting, 232
- in mailing label format, creating, 28
- main, 233, 288
- margins, changing, 232
- naming, 226
- overview of, 27
- page numbers, inserting, lx
- previewing, xli, lviii, lxi, 227
- printing, lxi, 248
- rulers, toggling on and off, 229
- saving, lx
- sections, changing height of, lviii, lx
- selecting, 230
- sorting, 225
- subreports (see subreports)
- tables in, multiple, 223
- templates for, 233, 288
- text boxes in, lix
- text in, aligning, 230
- titles, inserting, lx, 237
- unbound controls, inserting, 122, 244, 290
- views for, 27
- width, changing, lix
- zooming in, 228

**Request A Delivery Receipt command, 270**

**Required field property, 180**

**resizing**

- columns, 197
- form sections, 119
- rows, to standard height, 50
- table columns, 17, 48
- table rows, 49

**Restore Down/Maximize button, 3**

**restoring table columns after hiding, 50**

**restricting data. See masks; validation rules results, 289**

**Ribbon, 3**

commands, adding to Quick Access Toolbar, lxiii

- Create tab, 7
- Database Tools tab, 8
- defined, 289
- displaying, xxxix
- External Data tab, 8
- groups, 6
- hiding, xxxix, 7
- Home tab, 5

**Rich Text Format (RTF) documents**

- exporting data as, 87
- exporting forms to, xlvi

**right-aligning form controls, 113**

**rounding in number fields, 186**

**routine actions, automating. See macros**

**Row Height dialog box, 50**

**rows, table, 10**

- default height, setting to, 50
- deleting, xlvi, 47
- height, setting to standard, 50
- increasing height, 49
- navigating, 18
- plus signs next to (see subdatasheets)
- resizing all, xlvi
- setting to standard height, xlvi

**RTF (Rich Text Format) documents**

- exporting data as, 87
- exporting forms to, xlvi

**rulers, toggling on and off, 229**

**rules, 191**

- creating, lvi, 192
- defined, 290
- Expression Builder, creating with, 170, 191, 287
- testing, lv, 193
- text for, entering, 192

**Run button, 22, 165, 174, 176, 204–05, 209**

**running heads, how to use, xxiii**

**running**

- queries, xli, liv, 22, 165, 176, 204–05
- saved import operations, xlvi, 56

**S**

**Save As dialog box, 45, 47**

**Save button, 48, 182, 236**

**Save Export Steps dialog box, 82**

**saving**

- blank databases, automatically, 42
- database files, 38
- databases, 42

- export operation steps, 86
  - filters as queries, liv, 148
  - form design, l
  - import steps, xlvii, 56, 75
  - older databases, as current version, 57
  - queries, 20, 169
  - reports, lx
  - tables, xlii
- schemas, XML, 289. See also XML files**
- screen elements. See Ribbon**
- screen resolution requirement for Office 2007, xxviii**
- ScreenTips, xxxiii, 289**
- scripts, transform**
- applying to XML files, 70
  - defined, 290
- scroll bars in forms, hiding, 131**
- searching**
- Help, xxxvi
  - with wildcard characters, 148
- secure passwords. See also passwords**
- creating, 274
  - defined, 289
- security. See also passwords**
- defined, 286
  - designing, 273
  - warnings, 12
- See Also paragraphs, xxiv**
- select queries, 160. See also action queries; append queries; crosstab queries; delete queries; make-table queries; queries; update queries**
- converting into action queries, 204
  - converting into delete queries, 208
  - defined, 289
  - running, 205
  - View button in, 205
- selecting**
- columns, adjacent, 50
  - fields, lvi, 193
  - form control labels, l
  - form controls, 110–11
  - records, adjacent, 47
  - records, criteria for, 152
  - reports, 230
  - subforms, 137
- Selection button, 149**
- selectors, 289**
- Set Database Password dialog box, 276**
- SharePoint**
- exporting data to, 84
  - import details, saving as a specification, 61
  - lists, importing, xlvii, 60, 62
  - sites, exporting to, xlvii
  - valid site addresses, 61
- SharePoint List button, 62, 85**
- shortcuts to custom categories, adding, lxii**
- Show Table button, 164**
- Show Table dialog box, 163, 175, 206**
- Show Table Of Contents button, xxxv**
- Shutter Bar Open/Close button, 14**
- shutting down. See closing**
- signing, 289**
- Size Mode property of form controls, 121**
- sizing**
- form control labels, l
  - form controls, to fit, lii, 113, 121
  - form elements, 115
- sorting, 143, 145**
- columns, 147
  - defined, 289
  - vs. filtering or queries, 162
  - numbers, 145
  - reports, lix, 225
  - tables, 144
  - text, 145
- sorting records**
- in alphabetical order, liii, 146
  - in descending order, 146
  - on multiple fields, 147
  - from smallest to largest, liii
  - from within a form, 147
- splitting databases, lxxv, 282**
- spreadsheets, Excel**
- exporting to, xlvii, 82
  - importing from, xlvii, 57–58
  - pasting data into, 97
- starting**
- Access, 13
  - Access, on Windows XP, xvi
  - Report wizard, 222
  - Visual Basic Editor, 278
- startup options**
- bypassing, 266
  - configuring, 263
  - customizing, 262
  - database title, customizing, 263
  - defined, 289
  - preventing users from bypassing, 266
- StDev function, 174**
- Step by Step series conventions, xxxiii**

**strong passwords.** See also passwords

- creating, 274
- defined, 289

**structuring databases with templates, 38.** See also templates**styles for forms, 117–18****subdatasheets, 15**

- collapsing, 17
- defined, 289
- expanding, 17
- exporting to Excel, 82
- hiding, 17
- records in, hiding, xl
- records in, viewing, xl

**Subform/Subreport button, 134, 241****subforms**

- adding, lii
- creating, lii, 134
- defined, 289
- exporting to Excel, 82
- navigating, 139
- related fields in, 135
- selecting, 137

**subqueries, 162****SubReport wizard, 241****subreports, 239**

- borders, making transparent, 246
- creating, 241
- defined, 289
- dragging to insert, 240
- inserting, lx
- previewing, 246
- selecting, 241

**Sum function, 174, 176, 245****summarizing data, by adding Totals row, lv, 174****summarizing information.** See reports**Summary Options button, 225****Summary Options dialog box, 225****Switchboard Manager button, 253****Switchboard.closeSB macro, 256****switchboards, 104**

- buttons, creating, lxii, 255
- buttons, On Click property for, 258
- code behind, 253
- commands, adding to, 255
- creating, lxi, 252
- creating, with Switchboard Manager, 253
- defined, 289
- editing, 255

- naming, 254
- opening, 257
- pages, adding, lxi

**switching views, xli, 15, 19****syntax, 155, 290****system requirements for Office 2007, xxviii****T****tabbed documents, 4, 290****Table Analyzer Wizard, importing data with, 57****table columns**

- adding, 48
- data types, changing, 46
- defined, 10
- freezing in place, xliii, 51
- hiding, xliii, 50
- locking into position, 51
- moving, liii
- names, editing, 47
- names, spaces in, 45
- as primary keys, 45
- renaming, 44
- resizing, xliii, 17, 48, 197
- restoring after hiding, 50
- selecting adjacent, 50
- setting width to widest entry, 17
- size, setting, 46
- sorting together, 147
- unhiding, 50
- unique identifiers, 45

**table of contents, how to use, xxiii****Table Of Contents in Help window, xxxv****table rows, 10**

- default height, setting to, 50
- deleting, xliii, 47
- height, setting to standard, 50
- increasing height, 49
- navigating, 18
- plus signs next to (see subdatasheets)
- resizing all, xliii
- setting to standard height, xliii

**tables**

- arrow icons next to, 60
- closing, xlii
- columns in (see columns, table)
- copying, 202



- copying information between other Office programs, xlix
  - copying structure of to new, xlii, 42
  - as core database objects, 14
  - creating, manually, 41–42
  - creating, with queries, 161, 288
  - creating, with templates, xlii, 46
  - default names of, 42
  - defined, 290
  - deleting, xlii, 43
  - deleting from queries, lv, 164
  - display options (see views)
  - displaying information from (see reports)
  - embedding datasheets from other tables in (see subdatasheets)
  - Excel icons next to, 60
  - export formats available for, 79
  - exporting, xlvii, 81
  - exporting to Excel workbooks, xlvii
  - exporting to formatted text files, xlviii
  - exporting to HTML files, xlviii
  - exporting to SharePoint sites, xlvii
  - exporting to XML files, xlviii
  - fields, linking to, 196
  - fields in (see columns, table)
  - filtering, 148
  - importing, xlviv, 54
  - importing selected fields, 55
  - navigating, xl, 18, 43
  - Navigation bar, 18
  - number of records in, viewing, 18
  - as object types, 9
  - opening, xxxix
  - opening, in Datasheet view, 15, 48
  - opening, in Design view, 15
  - orientation when printing, changing, xli
  - previewing, xli
  - records in. See rows, table
  - renaming, xlii, 43
  - reorganizing, 48
  - reports on. See reports
  - rows in (see rows, table)
  - saving, xlii
  - saving with new name, 45
  - sorting, 144
  - summarizing data of, by adding Totals row, lv, 174
  - templates for (see templates)
  - validation rules (see validation rules)
  - viewing information from multiple (see subdatasheets)
  - views (see views)
- tabs, 3, 267. See also Ribbon**
    - Create, 7
    - Database Tools, 8
    - in database window, 4
    - defined, 290
    - External Data, 8
    - Home, 5
  - tags, HTML, 71, 287, 290. See also HTML files**
  - templates, 37–38**
    - benefits of, 38
    - creating databases from, 40
    - creating tables from, xlii, 46
    - default save location, 39
    - defined, 290
    - downloading, 39
    - finding, 39
    - opening, xli
    - viewing descriptions of, 39
  - testing, 281**
    - delete queries, 208
    - validation rules, 193
  - text**
    - in reports, aligning, lix
    - sorting, 145
  - Text Box button, 244**
  - text box controls, 24, 103, 290**
  - text boxes in reports, lix**
  - text fields, lv**
  - Text File button, 66**
  - text files**
    - comma-delimited, importing from, xlv
    - delimited, 65
    - delimited, exporting as, 92
    - exporting as, 90
    - exporting as, with formatting, 90
    - file extensions for, 66
    - fixed-width, 65
    - formatted, exporting tables to, xlviii
    - importing, 66
    - importing, enclosing fields in quotation marks, 65
  - Theme Settings dialog box, 118**
  - themes for form controls, 118**
  - thumb tabs in book, how to use, xxiii**
  - Tip paragraphs, xxiv**
  - title bar**
    - buttons on, 3
    - defined, 290
  - Title button, 237**
  - titles in reports, 237**
  - To Fit button, 113, 121**
  - Toggle Filter button, 149, 150, 153, 155, 158, 202**

**toolbars**

- preventing changes to, 264
- primary (see Ribbon)
- Quick Access (see Quick Access Toolbar)

**Totals button, 175**

**Totals row, adding, lv, 174**

**transaction records, 290**

**transferring data into a database. See importing transforms**

- applying to XML files, 70
- defined, 290

**triangles on buttons, 3**

**Trust Center macro settings, changing, xl**

**Trusted Locations list, adding to, xxxix, 12**

**Trusted Publishers list, adding to, xxxix**

**2007 Microsoft Office system, xxviii**

**U****unbound controls**

- defined, 122, 290
- inserting, 244

**UNC (universal naming convention) paths**

- defined, 290
- linking to data with, 60

**undocking, 290**

**Unhide Columns dialog box, 50**

**unhiding table columns, 50**

**universal naming convention (UNC) paths**

- defined, 290
- linking to data with, 60

**unmatched queries, 160, 290**

**Unsaved Record icon, 43**

**Update button, 205**

**update queries, 161, 202. See also action**

- queries; append queries; crosstab queries;
- delete queries; make-table queries; queries;
- select queries

- creating, lvi, 203
- defined, 290

View button in, 205

**updating databases from previous versions, 57**

**Use Access Special keys check box, 264**

**Use Control Wizards button, 122**

**USE paragraphs, xxiv**

**user environment, 2**

**user input in exercises, formatting of, xxiv**

**V****validation rules**

- creating, lvi, 192
- defined, 290
- Expression Builder, creating with, 170, 191, 287
- testing, lv, 193
- text for, entering, 192

**values, storing multiple in a field, 42**

**Var function, 174**

**VBA (Microsoft Visual Basic for Applications), 30.**

**See also modules**

- comments in code, 128
- password protecting code, lxiv
- removing passwords from, lxv
- returning to Access from, 128

**VBA Project Explorer pane, 127**

**versions of Access, outdated, updating databases from, 57**

**View button, 15, 47, 123, 137, 247, 205**

**View toolbar, 44**

**views, 15. See also Datasheet view; Design view**

- changing, 15
- current, displaying, 247
- defined, 290
- displaying list of, 247
- Layout View, 248
- Overlapping Windows, 4
- selecting, 31
- switching, xli, 15, 19, 44
- Tabbed Documents, 4

**Visual Basic Editor**

- passwords, removing, 280
- starting, 278

**W****Web (HTML) files, 71**

- defined, 287
- exporting tables to, xlviii
- importing from, xlvi
- importing to, 72
- parsing, 72
- structure tags, viewing, 95

**width, column, 17**

**wildcard characters, 148, 290**

**window elements.** See [Ribbon](#)

### **Windows XP**

- dialog boxes in, navigating, xvii
- Documents folder in, xv
- practice files, location of, xv
- starting Access on, xvi

### **wizards**

- adding controls without, 122
- Analyze Table, 211
- Collect Data Through E-mail Messages, 64
- creating forms with, 132
- Export Text, 91
- Get External Data, 55, 66, 69, 72
- Import Exchange/Outlook, 74–75
- Import HTML, 72
- Import Spreadsheet, 58
- Import Text, 66
- Input Mask, lv, 188
- Lookup, 195, 198, 287
- Query, 170–71
- Report, lviii, 221–22
- SubReport, 241
- turning off, for form controls, 122

### **Word**

- exporting data to, 87
- pasting data into, 97

### **workgroups, 290**

### **worksheets, Excel**

- defined, 290
- exporting to, xlvii, 82
- importing from, xlv, 57–58
- pasting data into, 97

## **X**

### **XML File button, 69**

### **XML files**

- defined, 287
- exporting data to, 93
- exporting tables to, xlviii
- importing from, xlvi, 69
- schema, 69
- tags in, 68
- transforms, applying, 70

### **XML Paper Specification files, 89**

### **XML schemes, 289**

### **XP**

- dialog boxes in, navigating, xvii
- practice files, location of, xv

### **XPS (XML Paper Specification) files, 89**

## **Y**

### **Yes/No data type**

- defined, 181, 208
- formatting display of, 184
- toggling between yes and no, 183

## **Z**

### **ZIP codes, data type for, 46**

### **zooming**

- in Print Preview, 28, 248
- in reports, 228



