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# Windows® 10 IN DEPTH

Brian Knittel
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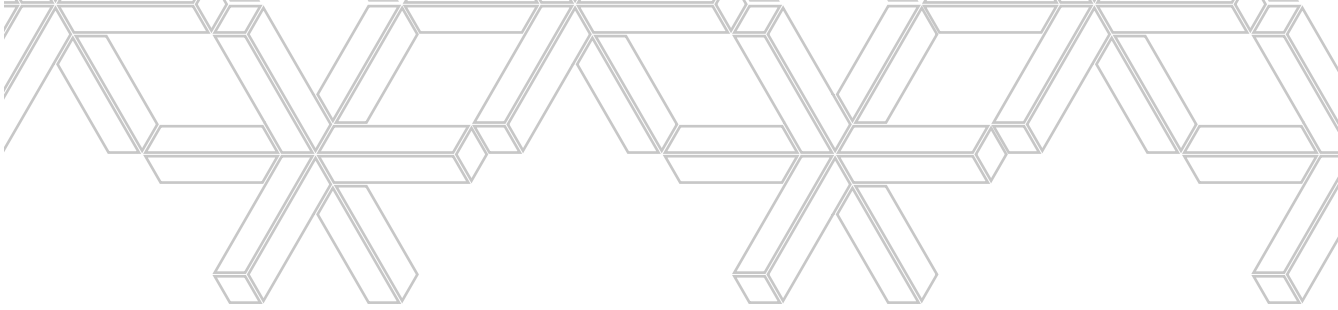

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# Windows® 10

# IN DEPTH

*Brian Knittel*
*Paul McFedries*

que®

**800 East 96th Street**
**Indianapolis, Indiana 46240**

# WINDOWS® 10 IN DEPTH

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# ABOUT THE AUTHORS

**Brian Knittel** is a software developer, consultant, and writer. He has authored or coauthored many of Que's best-selling Windows books, including Que's leading Windows books, *Windows 8.1 In Depth*, *Windows 8 In Depth*, *Windows 7 In Depth*, and *Special Edition Using Microsoft Windows* for Windows 2000 and XP. Brian is also the author of *Windows 7 and Vista Guide to Scripting, Automation, and Command Line Tools* and *Windows XP Under the Hood*. In addition, Brian coauthored *Upgrading and Repairing Microsoft Windows* with Scott Mueller.

**Paul McFedries** is the author of more than 85 computer books that have sold more than 4 million copies worldwide. His recent titles include the Sams Publishing books *Microsoft Windows 7 Unleashed* and *Microsoft Windows Vista Unleashed* and the Que Publishing books *PCs for Grownups*, *Formulas and Functions for Excel 2016*, and *My Office 2016*. Paul also is the proprietor of Word Spy (www.wordspy.com), a website devoted to tracking new words and phrases as they enter the English language.

## Dedication

*To my parents, who supported every odd interest and hobby that led to this topsy-turvy career. —Brian*

*To Karen, who gives new meaning to the phrase "better half." —Paul*

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## We Want to Hear from You!

As the reader of this book, *you* are our most important critic and commentator. We value your opinion and want to know what we're doing right, what we could do better, what areas you'd like to see us publish in, and any other words of wisdom you're willing to pass our way.

We welcome your comments. You can email or write to let us know what you did or didn't like about this book—as well as what we can do to make our books better.

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# INTRODUCTION

## Welcome

*We shall not cease from exploration*

*And the end of all our exploring*

*Will be to arrive where we started*

*And know the place for the first time.*

—T. S. Eliot

Thank you for purchasing or considering the purchase of *Windows 10 In Depth*. Windows 10 is, in short, a bold, thoughtful, and well-executed step forward in Microsoft's quest to create a single operating system that looks and acts the same across all devices, from desktop PCs to tablets, notebooks to telephones, and eventually even vending machines and gaming consoles. Rather than taking Apple's approach of having one OS for computers (OS X) and a second OS for phones and tablets (iOS), Microsoft has committed itself to the "One Ring to Rule Them All" principle, and has engineered Windows 10 to efficiently manage both types of devices.

If this sounds familiar, it's because Microsoft attempted to do this in 2013 with Windows 8, which was, not to put too fine a point on it, universally reviled. If there was one positive thing that you could say about it, it was that in comparison it made Windows Vista look like a spectacular success. There were two main problems: first, a lack of flexibility, especially on desktop computers. While a full-screen, one-application-at-a-time interface

is sensible on a phone or tablet, on a desktop computer it was a productivity drain of black hole proportions. The second and worse problem was that Microsoft *could* have made it work well but refused. The company's attitude at the time was essentially, "This is what you're going to get, and it doesn't matter if you don't like it. You're stuck with it, so get used to it."

It turns out that this wasn't a spectacularly effective business strategy.

So, now, after firing the CEO and the Windows Division president, eating nearly $2 billion in losses from its Surface Tablet product line, and skipping an entire version number just to show that it's *really* moved on, a much humbler, much more responsive Microsoft has released a new operating system. It kept what was good about Windows 8 and either tossed out or fixed the rest. The folks at Microsoft listened...*really* listened; in fact, they let the public vote on how Windows 10 would work. And the result is very, very good.

Microsoft backtracked on two key points:

- On traditional desktop and laptop computers, "Modern*" apps no longer have to run full-screen, one at a time. They can now run in normal windows, which you can move around and open and close.
- The Start menu is back. It's modernized, but it's recognizable as the Windows Start menu that we've had since 1995.

And still, Windows 10 has enough of the new to be interesting. There's an online personal digital assistant named Cortana. There are Modern apps and the Windows Store from which to find and install them. And, according to Microsoft, this is the last version of Windows you'll ever have to install. The plan is to incrementally improve and polish it bit by bit over the years, through frequent automatic updates.

If you're upgrading from Windows 8.1, you'll find that this version of Windows is easier to use. There are fewer "secrets." You know what we mean: those invisible places you had to click or bizarre gestures you had to make with your finger to perform even basic tasks.

And, despite all the new features, if you skipped Windows 8 and are moving up, or are considering moving up, from Windows 7 or XP, you'll find that almost everything you know about Windows still applies to Windows 10—you just have to learn some new routes to reach old places. In this book, we show you not only how to use all the new features, but also how to quickly and easily navigate to the parts of Windows that you're already familiar with.

This book covers the main desktop, notebook, and tablet versions of Windows 10: Windows 10 Home, Windows 10 Pro (which includes advanced features such as virtualization, encryption, Remote Desktop hosting, and group policy), and Windows 10 Enterprise (which includes additional features for enterprise IT support and security). Windows 10 Education version is Windows 10 Enterprise licensed for educational institutions. We cover how to use Enterprise and Education, although we don't cover the server-side management tools that are supplied with Windows Server operating systems.

---

* *These are programs based on software technology that makes them as capable of running on phones and tablets that have only a touchscreen and no mouse or keyboard as they are on desktop computers. Microsoft doesn't know quite what to call them. They've tried a bunch of names, including Metro apps, Windows 8 Style-apps, and Windows Store apps. In this book we call them Modern apps. We talk about this in Chapter 1.*

Although some of what we cover here also applies to the small-device version called Windows Mobile, we don't explicitly cover that version in this book.

# Why This Book?

Windows has been evolving, mostly incrementally, since 1985. Each new version has new features. Some you can figure out on your own, but some require explanation. Some features, such as networking, are easy enough to use but are very complex underneath, and setting them up can involve making complex technical decisions. In some cases, years might go by between the times that you use some management tool, and your human random access memory might need refreshing. Computer books come to the rescue for all of these needs, giving step-by-step instructions, helpful advice, and detailed reference material for the future.

Although usually the path from one version of Windows to the next is smooth and straight, every so often there is a big bump in the road. The first was with Windows 95, where the Start button appeared and the right mouse button suddenly became very important. The next bump was Windows XP, which marked the move from MS-DOS to the Windows NT operating system kernel, to a security system for files, and to a whole new way of managing Windows. It happened again with Windows 8. The Start button disappeared, and you had to use arcane "gestures" and tools to get anywhere.

Windows 10 fixes most of those problems, but there are still a bunch of shortcuts and tricks that you'll want to know about. We found these out for ourselves as we worked with Windows 10 daily, for months, as we wrote this book. We didn't have anyone's guidance then, but you do now. In this book, we'll show you how to manage the Windows 10 interface without a struggle.

In addition to getting you through the steeper parts of the Windows 10 learning curve, we'll give you the benefit of our combined 50-plus years of experience working with, writing about, and even writing software for Microsoft Windows. We know what parts of using and managing Windows are confusing. We know the easy ways to do things. We've seen just about every bug and glitch, have been through just about every ugly scenario one can come up with, and have made just about every mistake one can make. Therefore, we can spare you from having to repeat some of them.

You might also appreciate that in this book, we can be honest with you. We don't work for Microsoft, so we can tell you what we really feel about the product: the good, the bad, and the downright ugly. If we say something's great, it's because we think it is; and if we hate something, we'll tell you, and we'll try to show you how to avoid it.

Our book addresses both home and business computer users. As we wrote, we imagined that you, our reader, are a friend or coworker who is familiar enough with your computer to know what it's capable of, but might not know the details of how to make it all happen. So we show you, in a helpful, friendly, professional tone. We make an effort not just to tell you *what* to do, but why you're doing it. If you understand how Windows and its component parts work, you can get through rough patches: diagnosing problems, fixing things that the built-in wizards can't fix, and otherwise solving problems creatively.

And if you're looking for power-user tips and some nitty-gritty details, we make sure you get those, too. We try to make clear what information is essential for you to understand and what is optional for just those of you who are especially interested.

However, no one book can do it all. As the title says, this book is about the versions of Windows 10 that run on desktop computers, notebooks, and mobile devices (tablets) that have an Intel-compatible processor. Our coverage of the new Modern interface, Start menu, apps, management tools, and setup panels for the most part apply to tablets that run Windows 10 Mobile; however, a few parts of this book won't apply to those devices, and if you have one, you might want to get a book that specifically addresses that operating system.

We also don't have room to cover how to set up or manage the various Microsoft Server operating systems, such as Windows Server 2016, or how to deploy or manage Windows 10 using enterprise tools that are provided only with those operating systems. For these topics, you'll need to consult a Windows Server book.

Because of space limitations, only one chapter is devoted to coverage of the numerous Windows 10 command-line utilities, its batch file language, Windows Script Host, and Windows PowerShell. For that (in spades!), you might want to check out Brian's book *Windows 7 and Vista Guide to Scripting, Automation, and Command Line Tools*, which is equally applicable to Windows 10.

Even when you've become a Windows 10 pro, we think you'll find this book to be a valuable source of reference information in the future. Both the table of contents and the very complete index provide an easy means for locating information when you need it quickly.

# How Our Book Is Organized

Although this book advances logically from beginning to end, it's written so that you can jump in at any location, quickly get the information you need, and get out. You don't have to read it from start to finish. (Remember, the index at the back of the book is your best friend.)

If you're new to Windows 10, however, we do recommend that you read Chapter 3, "Your First Hour with Windows 10," and Chapter 4, "Using the Windows 10 Interface," in their entirety. Windows 10 has new ways of doing things that aren't always entirely intuitive or obvious. Reading these two chapters might save you *hours* of frustration.

This book is broken down into six major parts. Here's the scoop on each one:

Part I, "Starting Out with Windows 10," introduces the new Windows 10 user interface, and shows you how to install Windows 10 on a new computer or upgrade an older version of Windows to Windows 10. In addition, we take you on a one-hour guided tour that shows you the best of the new Windows 10 features, and we walk you through making essential settings and adjustments that will help you get the most out of your computer. Consider this the Windows 10 version of "freshman orientation."

In Part II, "Using Windows 10," we cover the new Modern user interface and apps, managing documents and files, starting and stopping applications, searching for files and media, printing, and using the included desktop accessories and accessibility tools. In other words, this section covers all the routine, day-to-day stuff. However, it's very important material: Windows 10 does many things differently, and using it can be frustrating and confusing, especially if you don't know the basic tricks and techniques.

Part III, "Multimedia and Imaging," covers the Windows 10 bells and whistles, including Windows Media Player, imaging devices, using a document scanner, faxing, and all the other media tools that ship with Windows.

In Part IV, "Windows 10 and the Internet," we help you set up an Internet connection and then move on to cover the Windows 10 Internet tools. The final chapter in this part shows you how to diagnose Internet connection problems.

Any home or office with two or more computers needs a local area network (LAN) to easily transfer and back up files, share printers, and use a shared high-speed Internet connection. In Part V, "Networking," we walk you through setting up a network in your home or office, and show you how to take advantage of it in day-to-day use. We also show you how easy it is to share a DSL or cable Internet connection with all your computers at once, show you how to network with other operating systems, and, finally, help you fix it when it all stops working.

Part VI, "Maintaining Windows 10," covers system configuration, maintenance, and troubleshooting. We tell you how to work with the huge assortment of Windows 10 management tools, show you various useful tweaks and customizations, take you through some hard disk management techniques, give you advice on troubleshooting and repairing problems, show you how to manage software and hardware, and give you the details on editing the Windows Registry. And for real power users, we show how to use and tweak the command-line interface.

When Windows was introduced more than two decades ago, computer viruses, online fraud, and hacking were only starting to emerge as threats. Today (thanks in great part to *gaping* security holes in previous versions of Windows), computer threats are a worldwide problem, online and offline. In Part VII, "Security," we provide a 360-degree view of the ways in which Windows protects you and your data. Here, you'll find out both what Windows 10 will do to help you and what you must do for yourself. We cover protection against viruses and spyware, data loss and theft, hackers and snoops, and fraud and spam—in that order.

Part VIII, "Windows On the Move," shows you how to get the most out of Windows 10 when either you or your computer, or both, are on the go. We show you how to use a touch or pen interface on a Windows tablet or some other mobile PC, how to use wireless networking safely, how to get the most out of your laptop or tablet PC when traveling, and how to connect to remote networks. We also show you how to remotely connect to and use your Windows 10 computer from anywhere in the world.

Appendix A, "Virtualization," explains how to use Microsoft's Hyper-V virtualization technology to run other operating systems side by side with Windows 10, or to run Windows 10 within some other operating system. This can be an excellent alternative to setting up a dual-boot system. And, finally, Appendix B, "Command-Line Utilities," takes you through a tour of various Windows command-line utilities.

# Conventions Used in This Book

Special conventions are used throughout this book to help you get the most from the book and from Windows 10.

## Text Conventions

Various typefaces in this book identify terms and other special objects. These special typefaces include the following:

| Type | Meaning |
|---|---|
| *Italic* | New terms or phrases when initially defined |
| `Monospace` | Information that appears in code or onscreen in command-line tools |

All Windows book publishers struggle with how to represent command sequences when menus and dialog boxes are involved. In this book, we separate commands using a comma. Yeah, we know it's confusing, but this is traditionally how Que's books do it, and traditions die hard. So, for example, the instruction "Choose Edit, Cut" means that you should open the Edit menu and choose Cut. Another, more complex example is "Select Control Panel, System and Security, Change Battery Settings."

Key combinations are represented with a plus sign. For example, if the text calls for you to press Ctrl+Alt+Delete, you would press the Ctrl, Alt, and Delete keys at the same time. The letterless "Windows Logo" key is very useful in Windows 10. In key combinations it appears as, for example, "Windows Logo+X."

## Special Elements

Throughout this book, you'll find Notes, Tips, Cautions, Sidebars, Cross-References, and Troubleshooting Notes. Hopefully, they'll give you just the tidbit you need to get through a tough problem, or the one trick that will make you the office hero. You'll also find little nuggets of wisdom, humor, and lingo that you can use to amaze your friends and family, or that might come in handy as cocktail-party conversation starters.

**tip**

We specially designed these tips to showcase the best of the best. Just because you get your work done doesn't mean you're doing it in the fastest, easiest way possible. We show you how to maximize your Windows experience. Don't miss these tips!

**note**

Notes point out items that you should be aware of, but you can skip them if you're in a hurry. Generally, we've added notes as a way to give you some extra information on a topic without weighing you down.

**caution**

Pay attention to cautions! They could save you precious hours in lost work.

## Something Isn't Working

Throughout the book we describe some common trouble symptoms and tell you how to diagnose and fix problems with Windows, hardware, and software.

**We Had More to Say**

We use sidebars to dig a little deeper into the more esoteric features, settings, or peculiarities of Windows. Some sidebars are used to explain something in more detail when doing so in the main body text would've been intrusive or distracting. Sometimes, we just needed to get something off our chests and rant a bit. Don't skip the sidebars, because you'll find nuggets of pure gold in them (if we do say so ourselves).

We designed these elements to call attention to common pitfalls that you're likely to encounter.

Finally, cross-references are designed to point you to other locations in this book (or other books in the Que family) that provide supplemental or supporting information. Cross-references appear as follows:

*To learn more about the Start menu and Modern apps,* ***see*** *"Taking a Tour of the Windows 10 Interface,"* ***p. 105****.*

Let's get started!

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# 4

# USING THE WINDOWS 10 INTERFACE

## Taking a Tour of the Windows 10 Interface

"Ah, that's better." That was our first thought when we saw the Windows 10 interface, which does away with the much-maligned Windows 8/8.1 interface and its jarring and inefficient switching between the Start screen and the desktop. Instead, we're back to an interface that's more reminiscent of Windows 7, with a desktop front and center supplemented by a Start menu that implements some of the nicer features of the Windows 8/8.1 Start screen. The Windows 10 interface might look familiar, but there's lots that's new, so the goal of this chapter is to help you get comfortable with this new look. That is, you learn exactly how the Windows 10 interface works, what shortcuts you can use to make it easier, and what customizations you can apply to make it your own.

Let's begin with a tour of the Windows 10 interface. Figure 4.1 shows the Windows 10 desktop and Start menu.

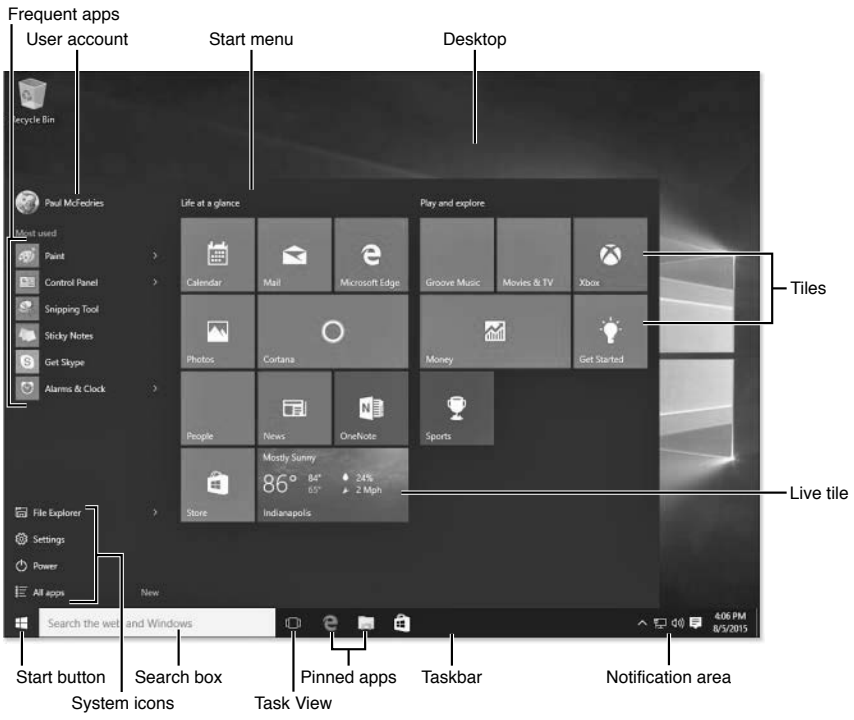



**Figure 4.1**
The Windows 10 interface: the desktop and Start menu, together again at long last.

The Windows 10 screen offers the following main features:

- **Start button**—It's back! As with Windows 7 and most earlier versions of Windows, the Start button appears in the lower-left corner of the screen, and you click it to display the Start menu.
- **Start menu**—The new Start menu is divided into two sections. On the left is a navigation section that gives you access to your user account; your most frequently used apps; system features such as File Explorer, Settings, and Power; and the rest of your apps (via the All Apps command). On the right is a scaled-down version of the Windows 8/8.1 Start screen that offers quick viewing and access to the tiles (see the next item) of a few apps.
- **Tiles**—The rectangles you see on the right side of the Start menu each represent an item on your PC—most tiles represent apps, but you can also add tiles for folders and websites—and you click a tile to launch that item. Tiles can appear in one of four sizes (see "Resizing a Tile," later in this chapter).
- **Live tiles**—Many of the Start menu tiles are "live" in the sense that they display often-updated information instead of the app icon. For example, the Weather tile shows the current weather for your default location; the Mail tile displays recent email messages; and the Calendar tile shows

your upcoming events. Note that these tiles don't display any live content until you have used them at least once.

- **All Apps**—Clicking this icon displays a complete list of the apps and desktop programs installed on your PC. Click Back to return to the main Start menu.
- **User account**—Clicking this icon gives you access to several account-related tasks (see Figure 4.2): accessing the Accounts section of the Settings app, locking your PC, and signing out of your account.

**Figure 4.2**
Click your user account tile for quick access to some account features and commands.

- **Desktop**—Relegated to a mere "app" in Windows 8/8.1, the desktop is back in Windows 10 and resumes its (rightful, in our opinion) place in the main interface as the default location for programs and documents.
- **Taskbar**—This strip along the bottom of the screen displays icons for each running app. You can also pin an app's icon so that a shortcut to it remains in the taskbar even when the app isn't running.
- **Search box**—You use this box to search your PC. We've found that this feature is the easiest way to launch apps, settings, and documents in Windows 10.
- **Task View**—Click this taskbar icon to display thumbnails of your running apps and to create virtual desktops (see "Working with Virtual Desktops," later in this chapter).
- **Pinned apps**—The Windows 10 taskbar comes with several pinned apps, which means those icons remain on the taskbar even when the apps are closed. To learn how to work with pinned apps, see "Pinning an App to the Taskbar," later in this chapter.
- **Notification area**—This part of the taskbar displays various system icons for features such as networking, sound, and power, as well as the notification issued by Windows.

## Navigating Windows 10 with a Keyboard

Windows 10 offers a huge number of Windows Logo key–based shortcuts that not only enable you to navigate the Windows 10 interface quickly but also let you easily invoke many Windows 10 features and programs. Table 4.1 provides the complete list.

**Table 4.1** Keyboard Shortcuts for Navigating Windows 10

| Press This | To Do This |
|---|---|
| Windows Logo | Toggle the Start menu |
| Windows Logo+A | Open the Notifications pane |
| Windows Logo+B | Activate the notification area's Show Hidden Icons arrow (press Enter to display the hidden icons) |
| Windows Logo+C | Open Cortana for voice commands |
| Windows Logo+D | Minimize all open windows to display the desktop |
| Windows Logo+E | Run File Explorer |
| Windows Logo+F | Display the Start menu and activate the Search box |
| Windows Logo+H | Display the Share pane |
| Windows Logo+I | Run the Settings app |
| Windows Logo+K | Display the Devices pane |
| Windows Logo+L | Lock your computer |
| Windows Logo+M | Minimize all windows |
| Windows Logo+O | Turn the tablet orientation lock on and off |
| Windows Logo+P | Display the Project pane to configure a second display |
| Windows Logo+Q | Open Cortana for voice commands |
| Windows Logo+R | Open the Run dialog box |
| Windows Logo+S | Open Cortana for keyboard commands |
| Windows Logo+T | Activate the taskbar icons (use the arrow keys to navigate the icons) |
| Windows Logo+U | Open the Ease of Access Center |
| Windows Logo+W | Activate the Search box |
| Windows Logo+X | Display a menu of Windows tools and utilities |
| Windows Logo+Z | Display an app's commands (although this works in only some Modern apps) |
| Windows Logo+= | Open Magnifier and zoom in |
| Windows Logo+- | Zoom out (if already zoomed in using Magnifier) |
| Windows Logo+, | Temporarily display the desktop |
| Windows Logo+Enter | Open Narrator |
| Windows Logo+Left | Snap the current app to the left side of the screen |
| Windows Logo+Right | Snap the current app to the right side of the screen |
| Windows Logo+Up | Restore a minimized app; maximize a restored app |
| Windows Logo+Down | Restore a maximized app; minimize a restored app |

| Press This | To Do This |
|---|---|
| Windows Logo+PgUp | Move the current app to the left monitor |
| Windows Logo+PgDn | Move the current app to the right monitor |
| Windows Logo+PrtSc | Capture the current screen and save it to the Pictures folder |
| Windows Logo+Ctrl+D | Create a virtual desktop |
| Windows Logo+Ctrl+Right | Switch to the next virtual desktop |
| Windows Logo+Ctrl+Left | Switch to the previous virtual desktop |
| Windows Logo+Ctrl+F4 | Close the current virtual desktop |
| Windows Logo+Tab | Open Task View, which displays thumbnails for each running app as well as the available virtual desktops |

## Navigating Windows 10 with a Touch Interface

We used to always say that Windows was built with the mouse in mind. After all, the easiest way to use screen elements such as the Start menu, the taskbar, toolbars, ribbons, and dialog boxes was via mouse manipulation. However, for tablet PCs that come with no input devices other than a touchscreen, it's now safe to say that Windows 10 was built with *touch* in mind. That is, instead of using a mouse or keyboard to manipulate Windows 10, you use your fingers to touch the screen in specific ways called *gestures*. (Some tablet PCs also come with a small penlike device called a *stylus*, and you can use the stylus instead of your finger for some actions.)

What are these gestures? Here's a list:

- **Tap**—Use your finger (or the stylus) to touch the screen and then immediately release it. This is the touch equivalent of a mouse click.
- **Double-tap**—Tap and release the screen *twice*, one tap right after the other. This is the touch equivalent of a mouse double-click.
- **Tap and hold**—Tap the screen and leave your finger (or the stylus) resting on the screen until the shortcut menu appears. This is the touch equivalent of a mouse right-click.
- **Swipe**—Quickly and briefly run your finger along the screen. This usually causes the screen to scroll in the direction of the swipe, so it's roughly equivalent to scrolling with the mouse wheel. You also use the swipe to display some of the Windows 10 interface elements: Swipe up from the bottom edge of the screen to display the taskbar, swipe right from the left edge to open Task View, and so on.
- **Slide**—Place your finger on the screen, move your finger, and then release. This is the touch equivalent of a mouse click and drag, so you usually use this technique to move an object from one place to another. However, this is also ideal for scrolling, so you can scroll an app vertically by sliding your finger up and down on the screen, or horizontally by sliding your finger right and left on the screen, making this technique the touch equivalent of clicking and dragging the scroll box.

- **Pinch**—Place two fingers apart on the screen and bring them closer together. This gesture zooms out on whatever is displayed on the screen, such as a photo.
- **Spread**—Place two fingers close together on the screen and move them farther apart. This gesture zooms in on whatever is displayed on the screen, such as a photo.
- **Turn**—Place two fingers on the screen and turn them clockwise or counterclockwise. This gesture rotates whatever is displayed on the screen, such as a photo.

**note**

If you don't see the Touch Keyboard icon in the taskbar, tap and hold the taskbar to display the shortcut menu, and then tap Show Touch Keyboard Button.

You can also use touch to enter text by using the onscreen touch keyboard, shown in Figure 4.3. To display the keyboard in an app, tap inside whatever box you'll be using to type the text; you can also tap the Touch Keyboard icon that appears in the taskbar's notification area.

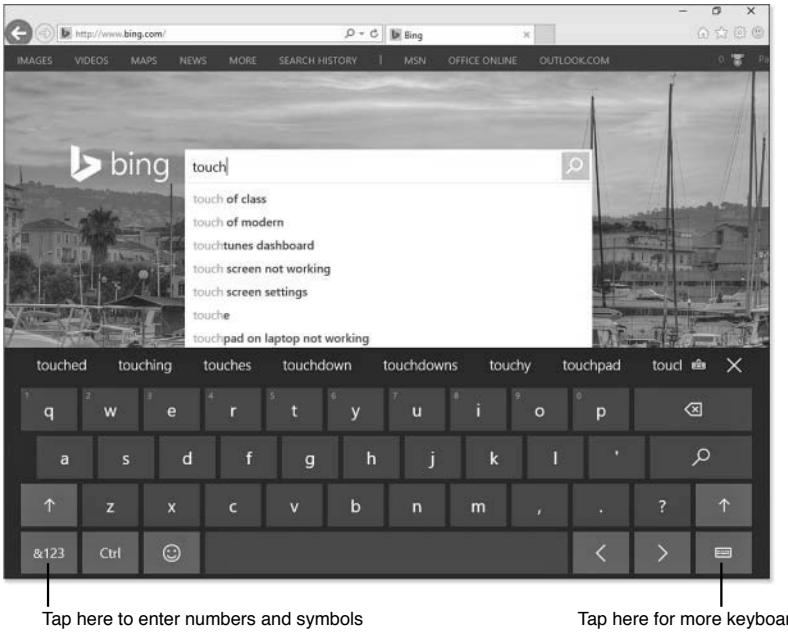



**Figure 4.3**
To type on a touch PC, use the onscreen keyboard.

As pointed out in Figure 4.3, you can tap the key in the bottom-right corner to see a selection of keyboard layouts, including the one shown in Figure 4.3, a split keyboard, and a writing pad for inputting handwritten text using a stylus (or, in a pinch, a finger). A full keyboard is also available. It's activated by default, but if you don't see it, you must follow these steps to enable it:

1. Tap Start.
2. Tap Settings to open the Settings pane.

3. Tap Devices.
4. Tap Typing.
5. Tap the Add the Standard Keyboard Layout as a Touch Keyboard Option switch to On.
6. Tap Close (X).

*To learn more about using the touch keyboard, see "Touch Keyboard," p. 834.*

# Working with Running Apps

One of the ironies of Windows 8/8.1 "features" that we didn't like was that, at least as far as the interface went, there no longer seemed to be any windows. After all, when you launched an app, it didn't appear inside a box. Apps technically did appear in a window; it's just that by default those windows took up the entire screen. Fortunately, that window weirdness is behind us now, and in Windows 10 all apps appear within bona fide, readily recognizable windows. You'll see this for yourself over the next three sections as we take you through various techniques for manipulating running apps.

## Snapping an App

One way you can take advantage of the "windowness" of apps (both Modern and Desktop) is to show more than one app onscreen at the same time. So, for example, you could display your Money app stock watch list while simultaneously surfing the Web, or watch what your Facebook friends are up to while also shopping in the Windows Store.

You do this by *snapping* the current app to the left or right side of the screen. This means that the app automatically resizes itself to half the screen width and parks itself on the left or right side of the screen, and then the next app takes up the rest of the screen. Figure 4.4 shows the Money app snapped to the left side of the screen, while Internet Explorer covers the rest.

**note**

In Windows 8, you couldn't snap an app unless your screen resolution was set to at least 1366×768, but that restriction was removed in Windows 8.1 and isn't part of Windows 10.

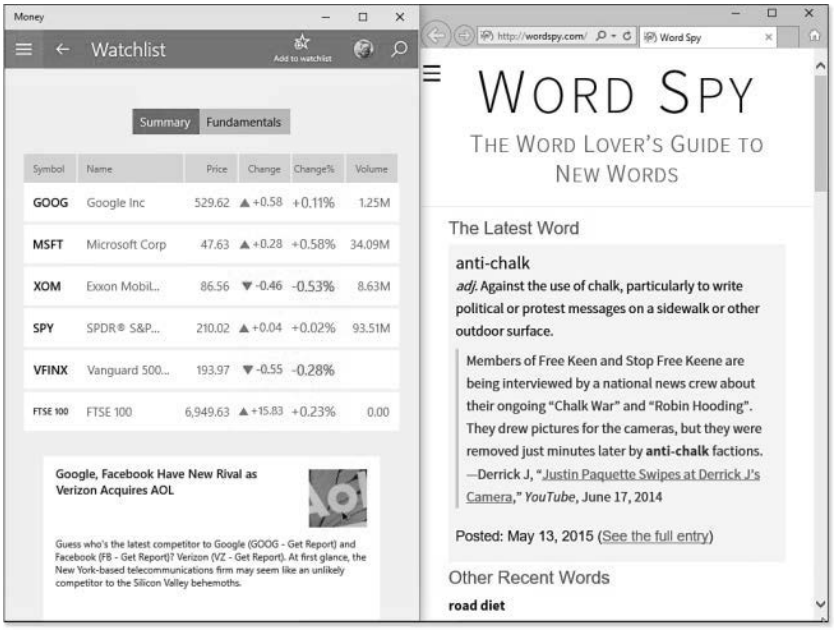



**Figure 4.4**
You can display two apps at the same time by snapping an app to the left or right side of the screen.

To snap an app, use the mouse or your finger to drag the app's title bar to the left or right side of the screen and then release.

That's a pretty good trick, but Windows 10 goes one better by enabling you to snap *four* apps at once. You do so by snapping apps to the corners of the screen instead of to the sides. For example, if you drag an app window to the upper-left corner of the screen, Windows 10 snaps the app into that corner and automatically resizes it so that it takes up half the screen width and half the screen height.

Note, too, that you can mix these snap techniques. For example, you could snap two apps to the left side of the screen—one in the upper-left corner and one in the lower-left corner—and then snap a third app to the right edge to fill the remainder of the screen.

**tip**

Another way to snap the current app is to hold down the Windows Logo key and tap either the left- or right-arrow key repeatedly. Windows 10 cycles the app through snap left, snap right, and unsnapped.

**tip**

You're not restricted to snapped apps taking up exactly one half or one quarter of the screen. After you snap an app, you can adjust the size of the window as needed. When you then snap an app to an adjacent area, Windows 10 is smart enough to resize that app's window to fit the space available. For example, suppose you snap an app to the right side, then adjust the width so that it takes up two-thirds of the screen. If you then snap an app to the left side, Windows 10 will resize that app's window to take up just the remaining one-third of the screen.

## Switching Between Running Apps

If you have multiple apps going, Windows 10 does away with the convoluted Windows 8/8.1 techniques for switching between them. Now you can switch to any running app either by clicking a visible portion of its window or by clicking its taskbar button. If an app isn't visible or you're not sure which taskbar icon to click, here are two other techniques you can use:

- Click the taskbar's Task View button to display thumbnails of your running apps, as shown in Figure 4.5; then click the app you want to use. From the keyboard, press Windows Logo+Tab to activate Task View, use the arrow keys to select the app, and then press Enter.
- Hold down Alt and press Tab until the app you want is selected; then release Alt to switch to that app.

**Figure 4.5** Use Windows 10's new Task View to view and switch between your running apps.

## Pinning an App to the Taskbar

For our money, by far the easiest way to launch an app in Windows 10 is to pin your favorite programs to the taskbar, which puts the app just a click away.

You can pin a program to the taskbar either from the Start menu or from the desktop. First, here's the Start menu method:

1. Click Start and then locate the app you want to pin.
2. Right-click the app.
3. Click Pin to Taskbar. Windows 10 adds an icon for the program to the taskbar.

Here's how to pin a running desktop program to the taskbar:

1. Launch the program you want to pin.
2. Right-click the running program's taskbar icon.
3. Click Pin This Program to Taskbar. Windows 10 adds an icon for the program to the taskbar.

**tip**

You can also pin an app to the taskbar by dragging the app from the Start menu and dropping it on an empty section of the taskbar.

**tip**

Windows 10 displays the taskbar icons left to right in the order in which you pinned them. To change the order, click and drag a taskbar icon to the left or right and then drop it in the new position.

## Using Desktop Apps as the Defaults

It's an unfortunate fact of Windows 10 life that many of the so-called *Modern* apps are actually extremely simple programs that offer only minimal feature sets. We don't recommend using them, but Windows 10 often tries to force the issue by using many apps as the default programs for certain file types. For example, if you double-click a JPEG file in File Explorer, Windows 10 opens it in the Photos app. Similarly, double-click an MP3 file and Windows 10 plays the song using the Music app.

Fortunately, with a bit of work you can configure Windows 10 to open these and other file types using desktop programs. Here are the steps to follow:

1. In the taskbar's Search box, type **`set default`**.
2. In the search results, click Default Programs. The Default Programs window appears.
3. Click Set Your Default Programs. The Set Default Programs window appears.
4. Click a desktop program that you want to use for opening one or more file types. For example, to change how Windows opens MP3 files, click Windows Media Player.
5. Click Choose Defaults for This Program. The Set Program Associations window appears.
6. Select the check box beside each file type that you want to associate with this program. For example, in Figure 4.6 you can see that we're working with Windows Media Player and that we've selected the .mp3 check box.

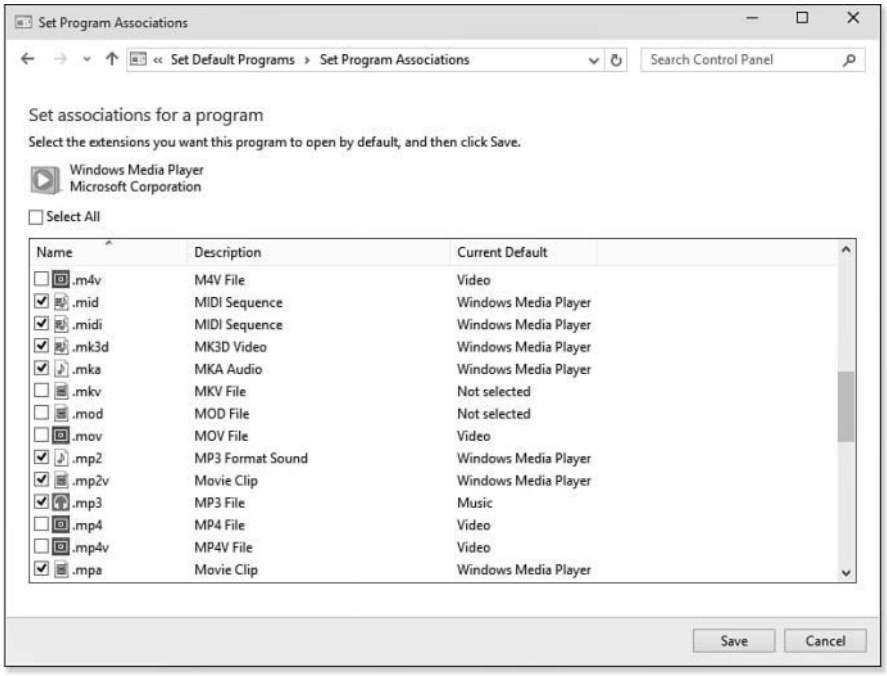



**Figure 4.6** Use the Set Program Associations window to associate file types with a desktop program.

7. Click Save. Windows 10 associates the program with the file types you selected.
8. Repeat steps 4–7 to set the defaults for your other desktop programs.
9. Click OK.

# Working with Notifications

If you're a Windows old-timer, you're certainly all too familiar with the notification area in the taskbar, which displays balloons whenever Windows or an application has information for you. Those notifications are still available, but that older style of notification appears only for desktop programs. Windows 10 and all apps use a different system in which the notifications appear as larger fly-out messages above the notification area. For example, you might add an appointment to the Calendar app and ask the app to remind you about it, and that reminder appears as a notification. Similarly, if you use the Alarms app to set an alarm, the alarm message and options appear as a notification.

These notifications appear briefly in the lower-right corner of the screen. For example, Figure 4.7 shows the notification that appears when you insert a USB flash drive. In this case, Windows 10 is wondering what you want to do with the drive.

**Figure 4.7**
Notifications appear in the lower-right corner of the screen.

To handle the notification, click it. Windows 10 then takes you to the app that generated the notification. If the notification was generated by Windows 10 itself, it displays more information. In the flash drive example, Windows 10 displays a list of options similar to the one shown in Figure 4.8.

**tip**
Notifications appear for only a few seconds. To keep a notification onscreen indefinitely, move your mouse pointer over the notification.

**Figure 4.8**
Click a notification, and Windows 10 either displays more information, as shown here, or switches to the app that generated the notification.

# Searching Windows 10

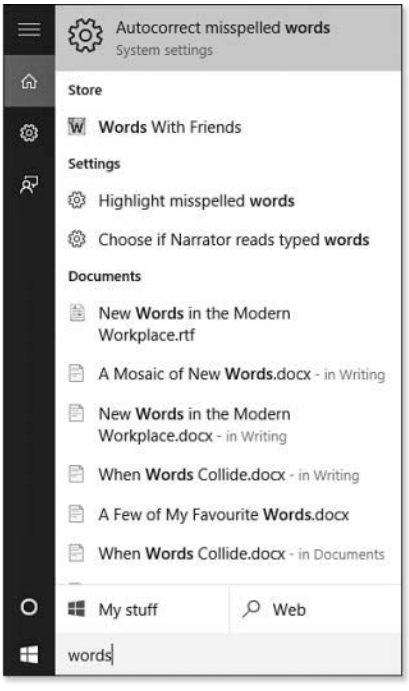
If you use your PC regularly, there's an excellent chance that its hard drive is crammed with thousands, perhaps even tens of thousands, of files that take up hundreds, perhaps even thousands, of gigabytes. That's a lot of data, but it leads to a huge and growing problem: finding things. We all want to have the proverbial information at our fingertips, but these days our fingertips tend to fumble around more often than not, trying to locate not only documents and other data we've created ourselves, but also apps, Windows settings, and that wealth of information that exists "out there" on the Web, in databases, and so on.

## Searching via the Taskbar

Windows 10 attempts to solve this problem by combining *all* search operations into a single interface element called the Search box. Using this deceptively simple taskbar-based text box, Windows 10 lets you search for apps by name, for Windows 10 settings and features, for documents, for app data, for web content, and more.

As you type, Search displays the results that match your search text. As shown in Figure 4.9, Search displays the most likely result at the top (which you can select by pressing Enter), and then the rest of the top results divided into categories such as Settings, Store, Documents, and Web.

**Figure 4.9**
The Search box displays as-you-type results.




To see more results, click My Stuff. Windows 10 opens the full results window, which is similar to the window shown in Figure 4.10. For even more detailed results, use the Show list to select the subset you want to see: Documents, Folders, Apps, Settings, Photos, Videos, or Music. Whether you're using the Search pane or the Results screen, when you see the item you want, click it.

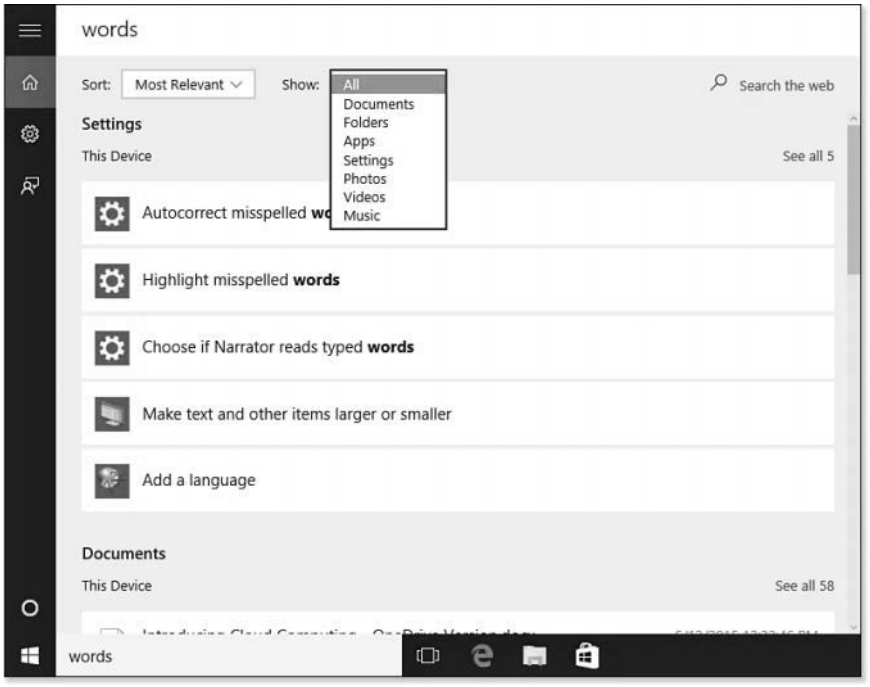


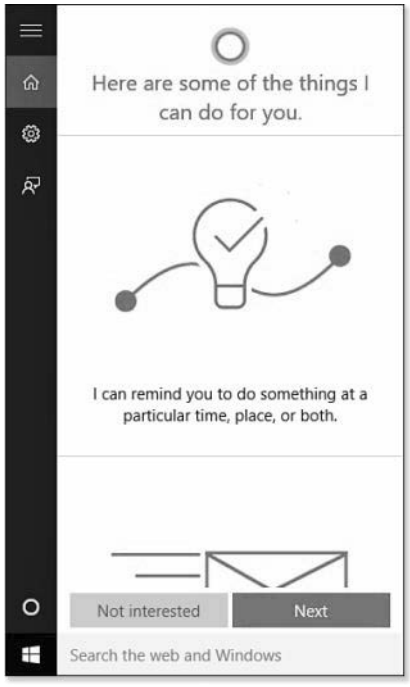

**Figure 4.10** When you click My Stuff, Windows 10 displays the full search results, which you can then filter by type.

## Searching with Cortana

Software engineers, having grown up watching *Star Trek* characters interact with computers using voice commands, have been trying to get the rest of us to use voice to control our PCs for many years. The problem is that most people feel awkward "speaking" to a PC and although voice would in some cases be a more efficient way to interact with the machine, the inaccuracies, glitches, and slow performance of voice-recognition systems almost always make such systems *less* efficient in the long run.

Still, the engineers keep trying, and Microsoft is no different with its Cortana voice-activated personal assistant, debuted originally on the Windows Phone and now available on all Windows 10 computers and tablets. Cortana first appears when you click inside the taskbar's Search box and you see a message like the one shown in Figure 4.11. Either select Not Interested (our choice) to not be pestered by this message in the future or, if you want to see what Cortana can do, select Next.

**Figure 4.11**
Select Next to give Cortana a test drive.




If you chose Next, Cortana runs through a quick setup procedure that includes asking you what Cortana should call you and giving Cortana permission to use your location.

With Cortana set up, the Search box prompt now says "Ask me anything" and you see a microphone icon on the right side of the text box (see Figure 4.12). Select that icon to interact with Cortana using voice commands. Note, too, that the Search pane is now festooned with icons down the left side: Home (the main Search pane), Notebook (a quick look at your calendar, traffic, weather, news, and more), Reminders (upcoming reminders), Places (add your favorite map locations), Music (have Cortana recognize the song that's playing), Help (see what Cortana can do), and Settings (configure Cortana and search options).

**tip**
Unfortunately, how you access Cortana's settings from within Cortana itself is not even a little bit obvious. You must select the Notebook icon (see Figure 4.12), then select Settings.

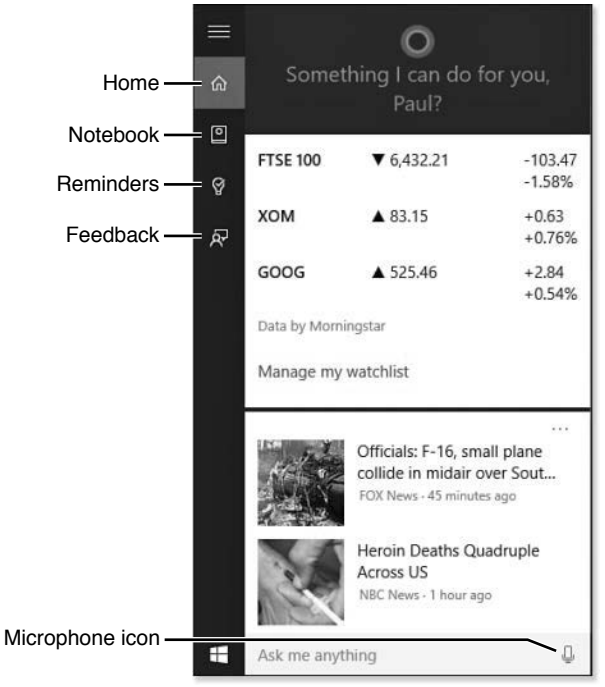



**Figure 4.12**
With Cortana active, the left side of the Search pane displays a more extensive menu of icons.

To toggle Cortana on or off, follow these steps:

1. Click inside the taskbar's Search box.
2. Select Notebook (refer to Figure 4.12).
3. Select Settings to display the Settings pane.
4. Select the Cortana switch to On or Off, as preferred.

# Customizing the Start Menu

The Start menu, with its live tiles and easy access (just press the Windows Logo key), is meant to be a kind of automatically and frequently updated bulletin board that tells you what's going on in your life: your latest messages, your upcoming appointments, the music you're listening to, the weather, the latest news and financial data, and so on. The key phrase here is "*your* life," meaning that it's unlikely the default configuration of the Start menu will be a reflection of who you are, what you do, and how you use Windows 10. Fortunately, the default Start menu layout isn't set in stone, so you're free to customize it by resizing and moving tiles, adding new tiles, and much more. The next few sections provide the details.

## Resizing a Tile

The Start menu tiles come in up to four sizes (we say "up to" because not all app tiles support all four sizes). Medium is the most common (see, for example, the default Music and Video tiles), and the other sizes are based on the Medium dimensions: Small is one quarter the size of Medium; Wide is the equivalent of two Medium tiles side-by-side; and Large is the equivalent of four Medium tiles arranged in a square.

The Wide and Large sizes are useful for tiles that are live because the tile has more room to display information. However, if you've turned off the live tile for an app (see "Turning Off a Live Tile," later in this chapter), these bigger tile sizes now seem like a waste of menu real estate, so you might prefer to use the smaller size. Similarly, if you turn on the live tile for an app that's using the Medium tile size, you might see only limited information in the tile (or none at all if the tile is using the Small size). For example, when the Mail app tile is set to Medium, it shows only the number of new messages you have, compared to showing you a preview of the new messages when the tile is set to Wide.

Whatever the scenario, you can resize a tile by right-clicking it, clicking Resize, and then clicking the size you want (see Figure 4.13).

**Figure 4.13**
Right-click a tile, click Resize, and then click a tile size.

## Moving a Tile

One of the problems many new users have with the Windows 10 Start menu is the slight delay that occurs when they try to find the app they want to launch. This is particularly true when you have many live tiles on the go, because you no longer see the app name in each tile, just the app icon. If this is the case with just the default Start menu tiles displayed, it's only going to get worse after you start adding more tiles (see "Pinning an App to the Start Menu," later in this chapter).

One way to reduce this problem is to rearrange the Start menu in such a way that it helps you locate the apps you use most often. For example, you could place your favorite apps on the left side of the screen, or you could arrange similar apps together (for example, all the media-related apps).

Here are the techniques to use to move an app tile:

- **Regular PC**—Use your mouse to click and drag the tile and then drop it on the new location.
- **Tablet PC**—Use your finger (or a stylus) to tap and drag the tile and then drop it on the new location.

## Turning Off a Live Tile

As we mentioned earlier, the Start menu offers a kind of aerial view of what's happening in your life, and it does this by displaying live content—called *tile notifications*—on many of the tiles. That seems like a good idea in theory, but much of that live content is not static. For example, if you have multiple email messages waiting for you, the Mail tile continuously flips through previews of each unread message. Similarly, the News and Money tiles constantly flip through several screens of content.

**tip**

You can clear tile notifications automatically when you sign out or when you restart or shut down Windows 10. In the taskbar's Search box (or the Run dialog box; press Windows Logo+R), type **`gpedit.msc`** and then press Enter to open the Local Group Policy Editor (which is not available in Windows 10 Home Edition). Open the User Configuration, Administrative Templates, Start Menu and Taskbar branch, double-click the Clear History of Tile Notifications on Exit policy, select Enabled, and then click OK.

This tile animation ensures that you see lots of information, but it can be distracting and hard on the eyes. If you find that the Start menu is making you *less* productive instead of more, you can tone down the Start menu by turning off one or more of the less useful live tiles. You do that by right-clicking a tile and then clicking Turn Live Tile Off.

## Pinning an App to the Start Menu

One of the significant conveniences of the Start menu is that the apps you see can all be opened with just a couple of clicks or taps. Contrast this with the relatively laborious process required to launch just about any other app on your PC: Display the Start menu, click All Apps, scroll through the list to find the app you want to run, and then click it. Alternatively, you can use the taskbar's Search box to start typing the name of the app and then click it when it appears in the Search results.

Either way, this seems like a great deal of effort to launch an app, and it's that much worse for an app you use often. You can avoid all that extra work and make a frequently used program easier to launch by pinning that program to the Start menu.

Follow these steps to pin a program to the Start menu:

1. Use the Start menu or File Explorer to locate the app you want to pin.
2. Right-click the app.
3. Click Pin to Start. Windows 10 adds a tile for the program to the Start menu.

**tip**

If you have a folder that you open frequently, you can pin that folder to the Start menu. Open File Explorer, and then open the location that contains the folder you want to pin. Right-click the folder and then click Pin to Start.

## Pinning a Website to the Start Menu

If you have a website that you visit often, you can use the Internet Explorer app to pin the website to the Start menu. This means that you can surf to that site simply by clicking its Start menu tile.

Follow these steps to pin a website to your Start menu using Internet Explorer:

1. On the Start menu, select All Apps, Windows Accessories, Internet Explorer.
2. Navigate to the website you want to pin.
3. Click Settings, which is the gear icon that appears to the right of the Address bar.
4. Click Add Site to Apps. Click Add when the Add Site to Apps box opens. This adds an icon for the site to the Start menu's Apps list (the left side of the menu).
5. Open the Start menu.
6. Right-click the website icon.
7. Click Pin to Start. Windows 10 adds a tile for the website to the Start menu.

**note**

To remove a tile from the Start menu, right-click it and then click Unpin from Start. Windows 10 removes the tile from the Start menu.

Follow these steps to pin a website to your Start menu using Microsoft Edge:

1. On the Start menu, select Microsoft Edge.
2. Navigate to the website you want to pin.
3. Click More Actions, which is the ellipsis icon near the upper-right corner of the window.
4. Click Pin to Start. Windows 10 adds a tile for the website to the Start menu.

## Displaying the Administrative Tools on the Start Menu

Windows 10 comes with a set of advanced programs and features called the administrative tools. We cover many of these tools in this book, including Performance Monitor, Resource Monitor, and Services (all covered in Chapter 23, "Windows Management Tools") as well as Disk Cleanup, Defragment and Optimize Drives, and Computer Management (all covered in Chapter 25, "Managing Hard Disks and Storage Spaces").

*For a rundown of all the administrative tools, see "Reviewing the Control Panel Icons," p. 217.*

Some of these tools are relatively easy to launch. For example, you can press Windows Logo+X or right-click the Start button to display a menu that includes Event Viewer, Disk Management, Computer Management, and a few other administrative tools (see Figure 4.14). However, the rest of these tools are difficult to access in Windows 10. For example, to run Defragment and Optimize Drives, you display the taskbar, type **`defrag`** in the Search box, and then click Defragment and Optimize Your Drives in the search results. Other administrative tools aren't even accessible via an

apps or settings search, so instead you need to know the tool's filename. For example, to run the System Configuration utility, in the taskbar's Search box, type **msconfig** and then press Enter.

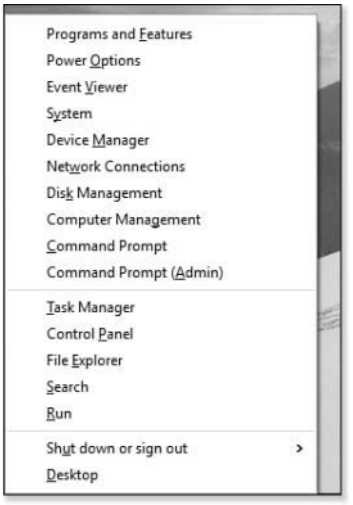



**Figure 4.14**
Press Windows Logo+X to display this handy menu of power user tools, which includes a few of the administrative tools.

This extra effort isn't that big of a deal if you use the administrative tools only once in a while. If you use them frequently, however, all those extra steps are real productivity killers. Instead, configure the Start menu with a tile for Control Panel's Administrative Tools icon by following these steps:

1. Press Windows Logo+X (or right-click the Start button) to display the menu of advanced tools, and then select Control Panel.
2. Use the View By list to select either Large Icons or Small Icons.
3. Right-click Administrative Tools.
4. Select Pin to Start. Windows 10 adds an Administrative Tools tile to the Start menu.

## Adding Shutdown and Restart Shortcuts

Although the Start menu does offer a few productivity improvements—at-a-glance info with live tiles, one-click app launching, as-you-type searching—a few tasks are maddeningly (and, in our view, unnecessarily) inefficient. We're thinking in particular of shutting down and restarting the PC. To perform these tasks using a mouse, you must click the Start button to open the Start menu, click Power, and then click either Shut Down or Restart. It's just inefficient, particularly if you regularly shut off or reboot your machine.

If you want an easier way of shutting down and restarting your PC, we show you how you can do just that. The basic idea is to create shortcut files that perform the shutdown and restart tasks, and then pin those shortcuts to the Start menu or taskbar, or leave them on the desktop.

So let's begin with the steps required to create the shortcuts:

1. Right-click the desktop and then select New, Shortcut. The Create Shortcut dialog box appears.
2. Type **`shutdown /s /t 0`**. This command shuts down your PC. Note that the last character in the command is the number zero.
3. Click Next. Windows 10 prompts you to name the shortcut.
4. Type the name you want to use. The name you type is the name that will appear on the Start menu.
5. Click Finish.
6. For the restart shortcut, repeat steps 2–5, except in step 3, type **`shutdown /r /t 0`** (again, the last character is a zero).

To help differentiate between these two shortcut files, follow these steps to apply a different icon to each file:

1. Right-click a shortcut and then click Properties. The shortcut's Properties dialog box appears.
2. Click Change Icon. Windows 10 warns you that the shutdown command contains no icons.
3. Click OK. The Change Icon dialog box appears.
4. Click the icon you want to use, and then click OK to close the Change Icon dialog box.

Although the `Shell32.dll` file contains plenty of shortcut icons, you can also try two other files:

- `%SystemRoot%\system32\pifmgr.dll`
- `%SystemRoot\explorer.exe`

Press Enter after you type each location to see the icons.

5. Click OK to close the Properties dialog box.
6. Repeat steps 1–5 to apply a new icon to the other shortcut file.

Finally, you can now pin the shortcuts to either the Start menu or taskbar by right-clicking each shortcut and then clicking Pin to Start or Pin to Taskbar.

## Creating an App Group

At first, the right side of the default Start menu appears like nothing so much as a random collection of tiles scattered willy-nilly. However, look closer and you see that there are actually two collections of tiles: the one on the left is labeled Life at a Glance, while the one on the right is labeled Play and Explore. These are called *app groups* and you can create your own to help organize the Start menu to suit the way you work and play.

Follow these steps to create an app group:

1. Pin to the Start menu an app, website, or Control Panel icon, as described earlier in this chapter. Alternatively, drag an existing tile to an empty section of the Start menu.
2. Add the other tiles you want to include in the group and drag each one to the same area of the Start menu as the first tile.
3. Move the mouse pointer just above the new group until you see an icon with two horizontal bars, and then click that icon. Windows 10 displays a text box above the group, as shown in Figure 4.15.

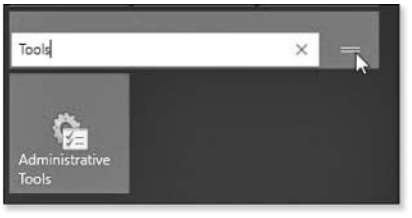



**Figure 4.15**
Move the mouse pointer above the group and click the icon to see the app group's Name text box.

4. Type the name you want to use for the group, as shown in Figure 4.15.
5. Press Enter. Windows 10 applies the name and your new group is ready to use.

You can rename the group at any time (including the default Start menu app groups) by repeating steps 3 and 4.

## Customizing the Start Menu's System Icons

As mentioned earlier, the left side of the Start menu includes a collection of system icons just above the Power button. In a default install, there are two system icons: File Explorer and Settings. However, Windows offers 10 icons in all, including icons that take you to the specific user account folders (such as Documents, Downloads, and Pictures) as well system folders such as HomeGroup and Network. Follow these steps to add one or more of these icons to your Start menu:

1. Open the Start menu and select Settings to display the Settings app. (You can also press Windows Logo+I.)
2. Click Personalization. The Settings app displays the Personalization window.
3. Click the Start tab.
4. If you don't want see the list of oft-used apps, click the Store and Display Recently Opened Programs in Start switch to Off.
5. Click Customize List. Settings displays a list of system icons that you can add to the Start menu.
6. For each icon you want to add to the Start menu, click its switch to On.

## Customizing the Start Menu Background

If you're getting tired of the same old, same old on your Start menu, you can tweak the background and color scheme, as described here:

1. Open the Start menu and select Settings to display the Settings app. (You can also press Windows Logo+I.)
2. Click Personalization. The Settings app displays the Personalization window.
3. Click the Colors tab to display the controls shown in Figure 4.16.

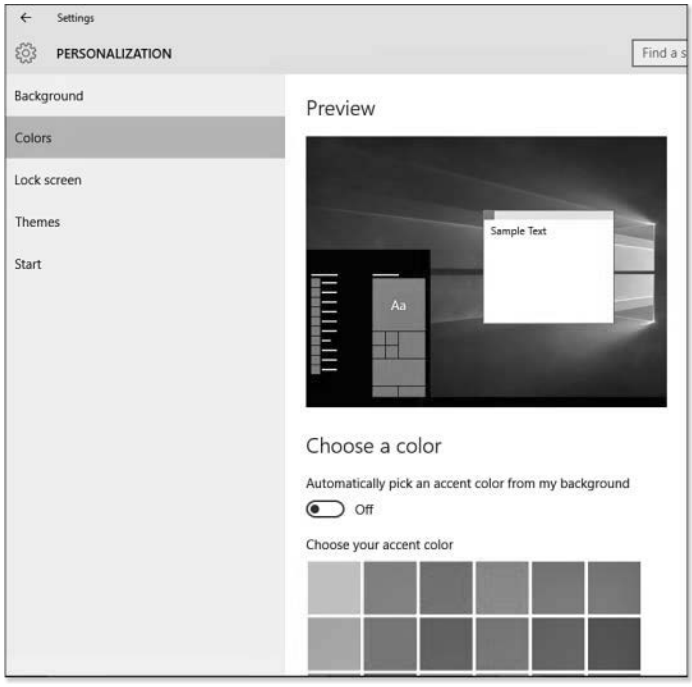



**Figure 4.16**
Use the Colors tab to customize the Start menu background and colors.

4. If you want Windows 10 to assign a color to the Start menu background automatically based on the desktop background, click the Automatically Pick a Color from My Background switch to On. If you click this switch to Off, Settings displays a collection of color swatches and you click a swatch to assign that color to the Start menu background.
5. Use the Show Color on Taskbar, Start, and Action Center switch to toggle the color from step 4 on and off.

**note**
The color you select applies to both the Start menu and the taskbar.

6. By default, the backgrounds of the Start menu, taskbar, and Action Center pane have a slight transparency effect. If you want to disable that effect, click the Make Start, Taskbar, and Action Center Transparent switch to Off.

# Customizing the Lock Screen

The Lock screen is the screen that appears before you sign in to Windows 10 (or, if your PC has multiple user accounts, it's the screen that appears before you select which account to sign in to). You have three ways to invoke the Lock screen:

- Turn on or restart your PC.
- Sign out of your user account (by clicking your user account tile and then clicking Sign Out).
- Lock your PC (by clicking your user account tile and then clicking Lock, or by pressing Windows Logo+L).

In other words, the Lock screen comes up relatively often when you use Windows 10, so you might as well get the most out of it by customizing it to suit how you work. The next three sections take you through these customizations.

*To learn more about locking your computer, **see** "Locking Your Computer," **p. 716**.*

## Customizing the Lock Screen Background

If you use the Lock screen frequently, you might prefer to view a background image that's different from the default image. To choose a different Lock screen background, follow these steps:

1. Open the Start menu and select Settings to display the Settings app. (You can also press Windows Logo+I.)
2. Click Personalization. Windows 10 displays the Personalization window.
3. Click the Lock Screen tab. The Settings app displays the Lock Screen settings, as shown in Figure 4.17.

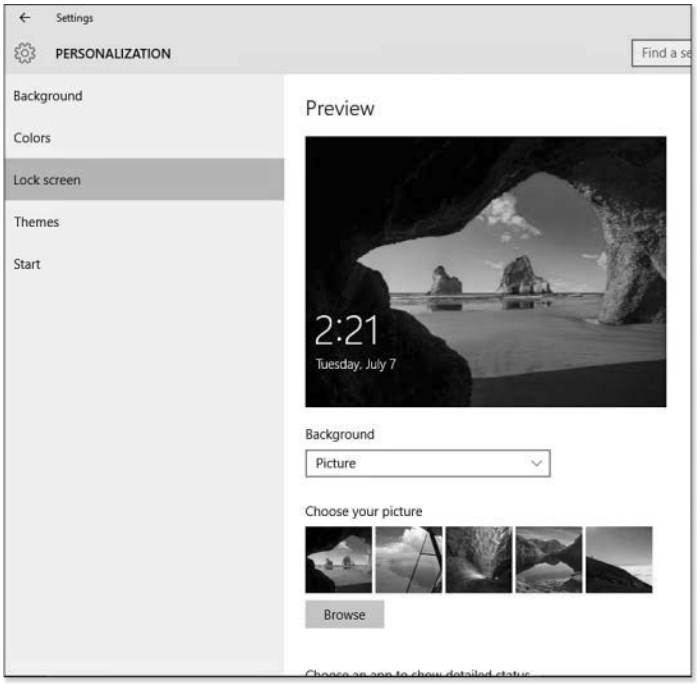



**Figure 4.17**
Use the Lock Screen settings to customize the background image displayed on the Lock screen.

4. In the Background list, select Picture.
5. Either select one of the supplied images or select Browse and then use the Open dialog box to choose an image from your Pictures folder.

**note**

Another way to apply one of your own images as the Lock screen background is to launch the Photos app, display the image you want to use, select See More (the three dots), and then select Set as Lock Screen.

## Controlling the Apps Displayed on the Lock Screen

As you'll learn in Chapter 31, "Protecting Windows from Viruses and Spyware," locking your computer is a useful safety feature because it prevents unauthorized users from accessing your files and your network. When you lock your PC, Windows 10 displays the Lock screen, which includes the current date, an icon that shows the current network status, and an icon that shows the current power state of your computer (that is, either plugged in or on battery). By default, Windows 10 also includes Lock screen icons for apps that have had recent notifications. For example, the Mail app shows the number of unread messages, and the Calendar app shows upcoming appointments. The Lock screen also shows any new notifications that appear for these apps.

If you lock your computer frequently, you can make the Lock screen even more useful by adding icons for other apps that support notifications. Here are the steps to follow:

1. Open the Start menu and select Settings to display the Settings app. (You can also press Windows Logo+I.)
2. Click Personalization. Windows 10 displays the Personalization window.
3. Click the Lock Screen tab. The Settings app displays the Lock Screen window.
4. Under Choose an App to Show Detailed Status, click the icon (or click + if no app is currently selected).
5. Click the app for which you want to display detailed status updates (such as the name, location, and time of an upcoming event in the Calendar app).
6. Under Choose Apps to Show Quick Status, click +. Settings opens the Choose an App window.
7. Click the app you want to add to the Lock screen. Windows 10 puts the new settings into effect, and the apps appear in the Lock screen the next time you use it.

## Disabling the Lock Screen

The Lock screen is one of those innovations that seem like a good idea when you first start using it but then quickly loses its luster the more you come across it. In the case of the Lock screen, the problem is that it forces you to take the extra step of dismissing it before you can sign in:

- **Regular PC**—Press any key or click the screen.
- **Tablet PC**—Swipe up.

If you've had to perform this extra task one too many times, and if you don't find the Lock screen all that useful anyway, you can disable it. This means you don't see the Lock screen when you start or lock your PC. Instead, Windows 10 takes you directly to the sign-in screen.

Follow these steps to disable the Lock screen:

1. In the taskbar's Search box (or the Run dialog box; press Windows Logo+R), type **`gpedit.msc`** and then press Enter. The Local Group Policy Editor appears.
2. Open the Computer Configuration, Administrative Templates, Control Panel, Personalization branch. The Personalization policies appear.
3. Double-click the Do Not Display the Lock Screen policy. The policy details appear.
4. Click Enabled.
5. Click OK. Windows 10 puts the new policy into effect.

**caution**

In Chapter 31, we show you how to require that users press Ctrl+Alt+Delete before they log on, which is a helpful security precaution. However, if you configure your PC to require Ctrl+Alt+Delete, Windows 10 ignores the Do Not Display the Lock Screen policy setting.

# Working with Virtual Desktops

Now that the desktop is once again a first-class Windows citizen, we can all go back to cluttering our screens with umpteen app windows scattered around the desktop. Well, we *could* go back to that, or we could take advantage of a useful new Windows 10 feature: virtual desktops. A *virtual desktop* is just like the regular Windows 10 desktop—that is, you can add icons to it, open apps on it, and so on—except that it resides offscreen until you summon it with your mouse or the keyboard. When you do that, Windows 10 moves the current desktop, as well as its icons and running apps, offscreen and replaces them with the second desktop, meaning you now see *its* icons and apps. So rather than having all your running apps on one desktop, you could create separate desktops for, say, productivity apps, media apps, Internet apps, and so on, then cycle through them as needed.

## Adding a Virtual Desktop

To add a new virtual desktop, you have two choices:

- In the taskbar, select the Task View button (or press Windows Logo+Tab) and then select New Desktop. Windows 10 adds the new virtual desktop to the Task View, as shown in Figure 4.18. Select the desktop thumbnail to switch to it.

**Figure 4.18**
In Task View, select New Desktop to add a virtual desktop.

- Press Windows Logo+Ctrl+D. Windows 10 creates and switches to the new virtual desktop.

## Working with Virtual Desktops

Once you have two or more desktops on the go, here's a rundown of the techniques you can use:

- **Switching desktops**—Invoke Task View and then select the icon of the desktop you want. From the keyboard, either press Windows Logo+Ctrl+Right arrow to switch to the next desktop, or press Windows Logo+Ctrl+Left arrow to switch to the previous desktop.
- **Moving an app to a different desktop**—Switch to the desktop that has the app you want to move, and then invoke Task View. Drag the app's thumbnail and drop it on the desktop to which you want it moved.
- **Closing a virtual desktop**—Invoke Task View, move the mouse pointer over the desktop you want to remove, and then click Close (X). You can also close the current virtual desktop by pressing Windows Logo+Ctrl+F4.

## Customizing Virtual Desktops

Windows 10 offers a couple of customization settings for virtual desktops. To see them, open the Settings app, select System, and then select the Multitasking tab. The Virtual Desktops sections offers two lists:

- **On the Taskbar, Show Windows That Are Open On**—By default, Windows 10 shows a taskbar icon for all running apps, regardless of which virtual desktop is current. If you'd rather the taskbar show icons only for the current virtual desktop's apps, use this list to select Only the Desktop I'm Using.
- **Pressing Alt+Tab Shows Windows That Are Open On**—By default, Windows 10 cycles through every running app when you hold down Alt and press Tab, regardless of which virtual desktop is current. If you'd rather that pressing Alt+Tab cycle through only the current virtual desktop's apps, use this list to select Only the Desktop I'm Using.

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