

- » Getting to know Windows 10
- » Discovering the new features in Windows 10
- » Figuring out whether your PC is powerful enough to run Windows 10
- » Knowing which version of Windows 10 you need

Chapter 1

What Is Windows 10?

Chances are good that you've heard about *Windows*: the boxes and windows that greet you whenever you turn on your computer. In fact, millions of people worldwide are puzzling over Windows as you read this book. Most new computers and laptops sold today come with Windows preinstalled, ready to toss colorful boxes onto the screen.

This chapter helps you understand why Windows lives inside your computer, and I introduce Microsoft's latest Windows version, *Windows 10*. I explain how Windows 10 differs from previous Windows versions, and why Windows 10 keeps changing.

What Is Windows, and Why Are You Using It?

Created and sold by a company called Microsoft, Windows isn't like your usual software that lets you calculate income taxes or send angry emails to politicians. No, Windows is an *operating system*, meaning it controls the way you work with your computer. It's been around since 1985, and the latest incarnation is called *Windows 10*, shown in Figure 1-1.

FIGURE 1-1:
Although
Windows 10 looks
different on
different PCs, it
usually looks
much like this.



The name *Windows* comes from all the little windows it places on your computer screen. Each window shows information, such as a picture, a program, or a baffling technical reprimand. You can place several windows onscreen simultaneously and jump from window to window, visiting different programs. Or, you can enlarge one window to fill the entire screen.

When you turn on your computer, Windows jumps onto the screen and begins supervising any running programs. When everything goes well, you don't really notice Windows; you simply see your programs or your work. When things don't go well, though, Windows often leaves you scratching your head over a perplexing error message.

In addition to controlling your computer and bossing around your programs, Windows comes with a bunch of free programs and *apps* — mini-programs. These programs and apps let you do different things, such as write and print letters, browse the Internet, play music, and send your friends dimly lit photos of your latest meal.

And why are you using Windows? Well, you probably didn't have much choice. Nearly every computer, laptop, or Windows tablet sold after July 2015 comes with Windows 10 preinstalled. A few people escaped Windows by buying Apple computers (those nicer-looking computers that cost a lot more). But chances are good that you, your neighbors, your boss, and millions of other people around the world are using Windows.



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- » Microsoft wants Windows 10 and its gang of apps to run on nearly *everything*: PCs, laptops, tablets, video game consoles, and even yet-to-be-invented gadgets. That's why Windows 10 includes many large buttons for easier poking with fingers on touchscreens. Windows 10 can also run *apps*, small programs usually found on smartphones and tablets, in windows on a desktop PC.
- » To confuse everybody, Microsoft never released a Windows 9. Microsoft skipped a version number when moving from Windows 8.1 to Windows 10.
- » The desktop's traditional Start menu, missing from Windows 8 and 8.1, returns in Windows 10. Microsoft has tinkered with the Start menu since Windows 10's initial release, making it a little easier to understand. (I explain how to customize the new Start menu to your liking in Chapter 2.)



TIP

SEPARATING THE ADS FROM THE FEATURES

Microsoft touts Windows as a helpful companion that always keeps your best interests in mind, but that description isn't really true. Windows always keeps *Microsoft's* interests in mind.

For example, Microsoft uses Windows to plug its own products and services. *Microsoft Edge*, the new Windows web browser, opens with links to Microsoft's own websites. The browser's Favorites area, a place for you to add *your* favorite web destinations, comes stocked with *Microsoft* websites.

Windows 10 places a link to OneDrive, its online storage service, in every folder. But Microsoft isn't as quick to mention that you must pay an annual fee when you reach your storage limit.

Advertisements appear on the Start menu, as well as the Windows *Lock Screen*, the screen that appears when you haven't used your PC for a while.

The Maps app uses the Microsoft Bing mapping service, rather than Google Maps or another competitor.

Microsoft also wants you to start buying *apps* rather than traditional programs. Apps are sold only through the bundled Microsoft Store app, and Microsoft takes a cut of each sale.

Simply put, Windows not only controls your computer but also serves as a huge Microsoft advertising vehicle. Treat these built-in advertising flyers as a salesperson's knock on your door.

What's New in Windows 10?

Microsoft views Windows 10 as a one-size-fits-all computing solution that runs on laptops and desktop PCs (shown earlier in Figure 1-1) as well as tablets, shown in Figure 1-2.

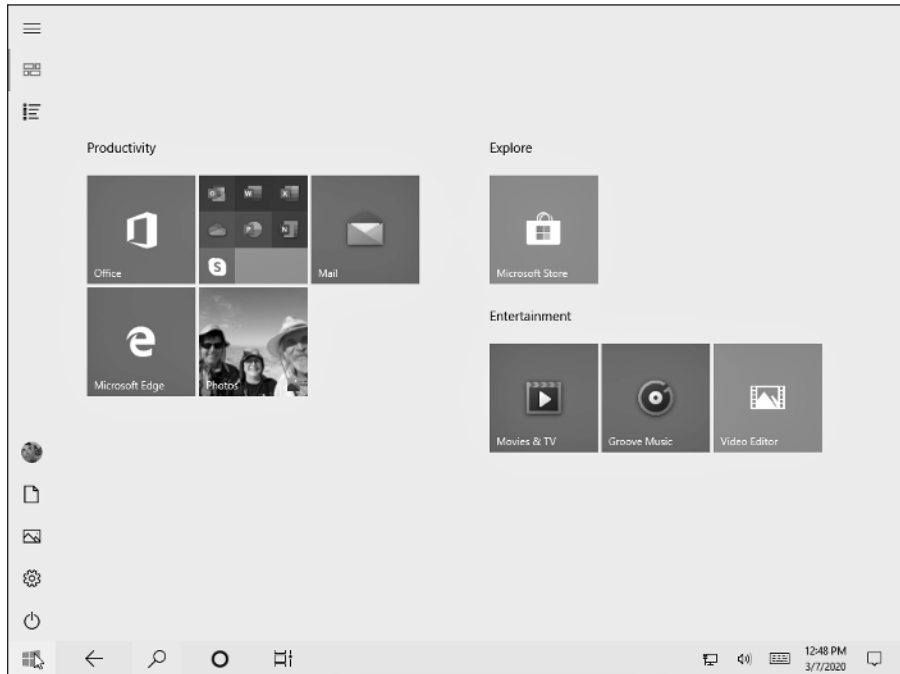


FIGURE 1-2: Windows 10 behaves almost identically on laptops and desktop PCs (shown earlier) and tablets (above).

Windows 10 can even run on your TV through Microsoft's Xbox One game console. Windows 10 behaves almost identically on each device, and it brings a bonus: Apps known as *universal apps* will run on a Windows 10 tablet, PC, laptop, and Xbox One.



NEW

Besides aiming to run on everything but clock radios, Windows 10 brings these changes to your computer:

- » **Start button and menu:** Removed from Windows 8 and half-heartedly tacked back onto Windows 8.1, the Start button and Start menu triumphantly return to the desktop in Windows 10. The revamped Start menu sports a column of icons, as well as fingertip-sized tiles for launching apps. (Tile haters find instructions for removing them in Chapter 2.)



NEW

- » **Apps on the desktop:** *Apps*, which are small programs from the world of phones and tablets, consumed the full screen in Windows 8 and 8.1. Windows 10 lets you choose whether to run apps full screen or within desktop windows.
- » **Cortana:** The digital assistant in Windows 10, Cortana, helps you manage your computing by fetching lost files, stocking your calendar with appointments, grabbing up-to-date traffic information about your commute, and extracting informational tidbits from the Internet. Microsoft recently removed Cortana from the taskbar's Search box; and it may eventually disappear from Windows 10. I cover searching for information in Chapter 7.
- » **OneDrive:** Microsoft's online file storage service comes built into Windows 10. OneDrive lets you choose which files and folders should live *only* on the cloud (Microsoft's Internet-connected computers) and which should live on both the cloud *and* your computer. That lets you adjust the settings depending on your computer's amount of available storage space.
- » **More apps:** The Microsoft Store offers more than 700,000 apps. That's nowhere near the number of apps found for the iPhone, iPad, or Android phones and tablets, but you can find plenty of big names like Facebook and Netflix, with more on the way.
- » **Multiple desktops:** Windows 10 lets you create extra desktops, and you can switch between them with a click or tap. You can set up one desktop for work and another for gaming, for example. (Or you can completely ignore the feature.)
- » **Windows Hello:** This welcome security update allows you to sign into your computer without typing in a password. With the right fingerprint reader or camera, your computer can recognize your face, fingerprint, or iris and automatically let you in. You can even access supported websites without having to type your username and password.
- » **Windows Ink:** This update lets you write on your tablet's screen with a special pen, letting you add handwritten notes and drawings to apps like Maps, the Microsoft Edge browser, and Office.
- » **Windows Timeline:** This new feature lets you see what apps, programs, and websites you accessed on previous days, letting you quickly revisit past work.
- » **Your Phone:** The latest update to the Your Phone app now lets you send and receive your phone's messages from the keyboard of your desktop PC, all wirelessly. You can browse your phone's latest photos from your desktop, as well. Keep an eye on this app, as Microsoft plans to add more features. I cover the Your Phone app in Chapter 17.



NEW

» **Windows 10 is now a service:** Perhaps most important, Microsoft treats Windows 10 as a constantly evolving *service* rather than a finished product. Microsoft keeps tinkering with Windows 10, adding, changing, or removing apps and features for as long as you own the device. (There's no way to stop Microsoft from changing Windows 10; you're expected to stomach these changes which take place automatically in the background.)

Unlike Windows 8 and 8.1, Windows 10 no longer feels like two operating systems crammed into one computer. It feels like a single operating system that can handle both tablets and desktop PCs.



TIP

HISTORY FOR WINDOWS 7 UPGRADERS

Windows 7 diehards missed lots of hubbub by skipping Windows 8 and 8.1. Those two poorly received Windows versions affected Windows 10 quite a bit; here's a wee bit of history so you'll understand Windows 10 a little better.

For years, Microsoft had watched helplessly as hordes of people bought iPhones, iPads, and *apps* — small and simple programs for lightweight touchscreen tasks. To compete, Microsoft designed Windows 8 for touchscreen tablets and unleashed it in 2012. Like the competition, Windows 8 opened to a screen full of touchable colorful tiles, each representing an app.

Even the desktop was relegated to an app, a tiny tile on the screen. But when opened, the Desktop app lacked its Start button and menu. Microsoft expected people to return to the tile-filled opening screen to launch their desktop programs.

Most desktop owners hated Windows 8. And because very few people bought Windows 8 tablets, Windows 8 bombed in the marketplace. Windows 8.1 made a few amends, but not enough.

With Windows 10, Microsoft aims to placate desktop lovers by bringing back a more traditional Start button and Start menu. To please tablet owners, the Start menu can fill the screen on command, making it easier to control with fingertips.

Best of all, Windows 10 is smart enough to change shape depending on what device it's installed on. On a tablet, Windows 10 presents the tile-filled, full-screen Start menu, which subtly widens its spacing to accommodate finger taps. On desktop PCs, Windows 10 shows the traditional desktop, Start menu, and Start button. And the menus remain small, which works well for the pinpoint clicks of a mouse.

With Windows 10, Microsoft hopes Windows will finally serve the needs of both desktop traditionalists *and* tablet owners.



TIP

For its first year of release, Windows 10 was a free upgrade for people owning fully patched Windows 7, 8, or 8.1 computers. The upgrade is no longer free, but it still keeps your files, apps, and programs in place. Owners of older PCs can also upgrade to Windows 10, but the upgrade will wipe out all your files and programs. You'll need to reinstall everything from a backup. (If your old computer is a slow crawler, it will *still* be a slow crawler after upgrading to Windows 10. You're probably better off buying a new PC with Windows 10 preinstalled.)



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Windows no longer comes in a Windows RT version. If you bought a Windows RT tablet, such as the Surface RT or Surface 2, you can't upgrade it to Windows 10.

What's So Different about Windows 10?

Today, computing falls into two camps: creating and consuming. People turn to their desktop PC for *creating* things. They write papers, send email, prepare tax returns, update blogs, edit videos, or, quite often, tap whichever keys their boss requires that day.

But when *consuming*, people often walk away from their desktop PCs. They pull out their smartphone or tablet to read email, watch videos, listen to music, and browse the web.

That split creates a problem. Desktop PCs, phones, and tablets all work differently; each offers different screen sizes, programs, and commands. What works well with fingers doesn't always work well with a mouse and keyboard. Sharing files among gadgets can be a nightmare.

Windows 10 aims to fix those problems by creating one operating system that works well on *everything*, letting both consumers and creators work on a single device. To do that, Windows 10 includes two different modes:

- » **Tablet mode:** For on-the-go information grabbers with touchscreen tablets, the Windows 10 Start menu fills the entire screen with large, colorful tiles that constantly update to show the latest stock prices, weather, email, Facebook updates, and other tidbits. Shown earlier in Figure 1-2, that information appears before you touch a button. And *touch* is a keyword: The full-screen Start menu works best with a touchscreen monitor or tablet.
- » **Desktop mode:** When it's time for work, the traditional Windows desktop brings all its power — as well as its more powerful and detailed menus.

Some people like the convenience of having both types of computers built into one: a touchscreen laptop, for example, or a tablet with a docking station that lets

you plug in a mouse and keyboard. Others find the two experiences to be oddly disjointed.



» If you can stomach the initial confusion, Windows 10 may offer you the best of both worlds: You can stay on the full-screen Start menu for quick, on-the-go browsing. And when work beckons, you can head for the desktop, where your traditional Windows programs await.

» If you're sitting at a desktop PC, Windows 10 should automatically open to the desktop. Windows 10 tablets usually open to a full-screen Start menu.

If Windows 10 doesn't open to the mode you prefer, click the Action Center icon (shown in the margin) found on the taskbar at the bottom of the screen; when the Action Center pane appears, click the Tablet mode toggle button. Your Start menu should quickly return to its proper size.

» Microsoft's game console, the Xbox One, runs in Tablet mode. The Xbox One's game controller serves as your finger, letting you move from tile to tile by pressing the controller's arrow keys.

» I explain the Windows 10 Start menu in Chapter 2; the Windows desktop awaits your attention in Chapter 3.

Why Does Windows 10 Keep Changing?

Microsoft calls Windows 10 a *service* rather than an operating system. Like any other service, it's subject to changes. Every month or two, Microsoft changes Windows 10 slightly. Some of Microsoft's changes occur more quickly: Your apps, for example, can update weekly. Some update daily.

Bigger changes arrive every six months, packed into large groups. You may have heard about the Anniversary Update in mid-2016, and the Creator's Update in 2017. Another big update arrived in Spring of 2020, bringing even more changes. (This edition of the book is up to date with all those changes.)

You may not notice these changes. Indeed, most of them just fix hundreds of annoying bugs, making Windows 10 run and install more smoothly.

Microsoft sends these updates automatically to your computer through Windows Update; you don't need to jump through hoops to find and install them.

Your apps update themselves automatically through the Microsoft Store. That's why the Music app automatically changed its name to the Groove Music app, for

example. The Photos app suddenly added a way to search your photos by folder and to create slideshows.

So, when something suddenly changes with Windows 10, don't think it's your fault. Microsoft constantly changes Windows 10, and Windows will keep changing for years to come.

Can My Current PC Still Run Windows 10?

If you want to upgrade to Windows 10, your computer probably won't complain. Windows 10 should run without problem on any PC currently running Windows 7, 8, or 8.1.



If you have a technogeek in your family, have him or her translate Table 1-1, which shows the Windows 10 hardware requirements you can find written in the fine print for new computers.

TABLE 1-1 The Windows 10 Hardware Requirements

Architecture	x86 (32-bit)	x86 (64-bit)
Processor	1 GHz or faster	
Memory (RAM)	At least 1GB	At least 2GB
Graphics Card	DirectX 9 graphics device with Windows Display Driver Model (WDDM) driver	
HDD free space	At least 16GB	At least 20GB
Firmware	Unified Extensible Firmware Interface (UEFI) 2.3.1 with secure boot enabled	

In common language, Table 1-1 simply says that nearly any computer sold in the past five years can be upgraded to Windows 10 with little problem.

Windows 10 runs nearly any program that runs on Windows Vista, Windows 7, Windows 8, and Windows 8.1. It even runs some Windows XP programs, as well. Some older programs, however, won't work, including older games and most security-based programs, such as antivirus, firewall, and security suites. You'll need to contact the program's manufacturer for an upgraded version.



Don't know what version of Windows runs on your current PC? If clicking the Start button brings a Start menu, right-click the menu's Computer entry, and choose Properties. The screen that appears lists your Windows version.

If there's no Start button, you're running Windows 8. And if clicking your Start button fills the screen with a bunch of colorful tiles, you're running Windows 8.1.

Finally, if *right-clicking* your Start menu brings a large pop-up menu, you're running Windows 10. Choose the menu's System entry, and the About window appears. Your version of Windows 10 is listed in the Windows Specifications section.

The Different Flavors of Windows 10



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Microsoft offers several different versions of Windows 10, but you'll probably want only one: the aptly titled "Home" version.

Small businesses will choose Windows 10 Pro, and larger businesses will want Windows 10 Enterprise.

Here are some guidelines for choosing the version you need:

- » If you'll be using your PC at home or in your small business, pick up **Windows Home**.
- » If you need to connect to a domain through a work network — and you'll know if you're doing it — you want **Windows Pro**.
- » If you don't mind running only apps from the Microsoft Store, with no desktop programs, you might be a candidate for the more secure **Windows 10 S**. (It costs less than other Windows versions, making it more attractive to students.) You can turn off Windows 10 S mode and run regular desktop programs, but it's a one-way ticket: You can't return to Windows 10 S.
- » If you spent extra money for a two-screen folding tablet, you're likely running Windows 10X. It's designed specifically for two-screen folding tablets, like Microsoft's new Surface Neo, which will arrive near the end of 2020. Most people will never know Windows 10X exists.
- » If you're a computer tech who works for businesses, go ahead and argue with your boss over whether you need **Windows Pro** or **Windows Enterprise**. The boss will make the decision based on whether it's a small company (Windows Pro) or a large company (Windows Enterprise).

For more details about upgrading to Windows 10, visit Microsoft's Windows website at www.windows.com.