WRITTEN BY
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Windows® 10 Anniversary Update BIBLE

THE COMPREHENSIVE TUTORIAL RESOURCE

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Windows® 10 Anniversary Update Bible

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Rob Tidrow
Jim Boyce
Jeffrey R. Shapiro

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Published by
John Wiley & Sons, Inc.
10475 Crosspoint Boulevard
Indianapolis, IN 46256
www.wiley.com

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Published simultaneously in Canada

ISBN: 978-1-119-35633-2
ISBN: 978-1-119-35900-5 (ebk)
ISBN: 978-1-119-35903-6 (ebk)

Manufactured in the United States of America

10 9 8 7 6 5 4 3 2 1

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Rob Tidrow would like to dedicate this book to his wife (Tammy) and his two sons (Adam and Wesley).

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Acknowledgments

We want to recognize Carole McClendon for bringing us this opportunity. This project would not have stayed on track without Marty Minner pushing and pulling us. Finally, we offer our appreciation and thanks to Vince Averello for his technical review of the manuscript.

It was a great experience.

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Introduction

Welcome to *Windows 10 Anniversary Update Bible*. If you're familiar with Windows, you might know that the Windows operating system has existed for three decades. In that time, it has transformed in many ways as computer hardware has changed dramatically.

Windows 10 is the latest edition in the Windows family and builds on the usability and performance improvements in Windows 7 and Windows 8.x. One of the biggest differences, however, is the introduction of a cross-platform model that brings the same code base and user experience to a wide range of platforms including the PC, tablets, phones, Xbox, and even small devices like the Raspberry Pi!

Although we've tried to cover as many of the features and capabilities as Windows 10 offers, some naturally fall through the cracks because we have only so much space in this book. With a good understanding of the key features, however, you're well on your way to getting the most from your Windows PC.

Who This Book Is For

Not everyone wants to be a computer expert, and few have the time to become one. Most people just want to use a computer to get things done, or even just to have some fun. This should come as no surprise. After all, not everyone who drives a car wants to be a professional mechanic. Not everyone who uses a cellphone wants to be an electrical engineer. So, why should everyone who uses a computer want, or need, to be a computer expert? They shouldn't. Some people just need to be computer *users* — people who use the computer without being total nerds about it.

This book is for those computer users — the people who just want to use their computers to have some fun and get some things done. It may seem like an awfully big book for such an audience. The reason it's such a big book is because you can do *so many* things with Windows 10.

Most of us prefer to learn by discovery, by exploring and trying things out. It's much more fun that way and typically much more effective. However, a couple of problems are evident with that approach. For one, you can get yourself into a bind from time to time. For another, when you get to a place where you don't know what's going on, sometimes you need to fill in some gaps before you can continue learning by discovery.

A book can help with that by covering all the stuff everyone else assumes you already know. Especially if that book is divided up into sections and chapters that deal with one topic at a time, so you can focus on just the thing you need to know, when you need to know it. Which brings us to . . . .

How to Use This Book

A book that supports learning by discovery needs to have some elements of a tutorial and some elements of a reference book. You can say it has to be a reference book divided into multiple mini-tutorials, so you can learn what you need to know about one topic, whenever it becomes important to you. To that end, this book is divided into nine major parts, each of which covers a large topic.

Each part, in turn, is divided into multiple chapters, each chapter covering a smaller topic. Chapters are divided into sections and subsections, all designed to help you find the information you need, when you need it. The table of contents in the front of this book covers all the specifics. The index at the back of the book helps you find information based on a keyword or topic. The only thing missing is a high-level view of just the parts. So, that's what we provide here:

Part I: Getting Started: How you get started with Windows 10 depends on where you're coming from. This part covers all fronts. If you're an experienced Windows user, you probably want to know what's new. Chapter 1 covers that turf. Chapters 2 and 3 cover important "getting started" topics for everyone, and help you learn to navigate the Windows 10 environment. Chapter 4 touches on security and safety. Chapter 5 provides solutions to common problems with getting started.

Part II: Personalizing Windows 10: We all like to tweak things to suit our personal needs, taste, and style. That's what this part is all about. But it isn't just about changing the look and feel of your computer environment. It's about really making the computer a useful tool for whatever your work (or play) requires.

Part III: Windows 10 for the Enterprise: The share of Windows 10 installations in medium to large companies has increased over the past year. We will continue to see that share grow as organizations replace client computers on users' desktops and tablets. The chapters in this part cover setting up and configuring Windows 10 Hyper-V, using computers remotely, and managing Windows 10 Hyper-V in an enterprise.

Part IV: Managing Your Content: We all have to make some effort to get our stuff organized and keep it organized. Otherwise, we spend more time looking for files than actually *doing* things. This part covers the necessary housekeeping chores to help you focus on productivity — and fun.

Part V: Printing and Managing Printers: Sometimes, you just have to get something off the screen and onto paper. That's what printing is all about. This part covers printing and managing printers.

Part VI: Installing and Removing Programs: Hot topics here include adding and managing Windows 10 applications, installing and upgrading legacy programs, getting older programs to run, repairing and removing programs, setting default programs, managing programs

and processes, and troubleshooting software problems. After all, what good is a computer without some programs to run on it?

Part VII: Hardware and Performance Tuning: *Hardware* is the computer buzzword for physical gadgets you can hold in your hand or that sit on your desk. As the years roll by, hardware keeps getting smaller, better, faster, cheaper, and, well, cooler. This part covers everything you need to know about adding and removing hardware, using wireless Bluetooth devices, performance-tuning your system, and troubleshooting hardware problems.

Part VIII: Networking and Sharing: This part focuses on networking features of Windows 10. Whether you have 2 PCs or 20, eventually you may want to link them all together into a single private network so they can share a single Internet account and printer, or perhaps several printers. You also learn about imaging Windows 10, using group policies, and how to protect against malicious software in this part.

Part IX: Managing Windows 10 in an Enterprise: For those responsible for managing and administering Windows 10 in a corporate or enterprise setting, this part devotes chapters to imaging and deploying Windows 10, how to use Windows 10 group policies, and ways to enhance Windows 10 security in an enterprise.

Part X: Appendixes: Rounding out the book are four appendixes, where you find information on how to install a clean copy of Windows 10 or upgrade an existing Windows 7 or Windows 8.x installation. We also provide details on Windows gestures and hotkeys.

That's a lot of topics and lots to think about. But there's no hurry. If you're new to Windows, or your experience is limited to basics like e-mail and the web, Chapters 2 and 3 are probably your best first stop. If you have more extensive Windows experience, you may want to hop over to Chapter 1 for a quick look at things that are new in Windows 10.

Part I

Getting Started

IN THIS PART

Chapter 1
What's New in Windows 10

Chapter 2
Navigating the Windows 10 Interface

Chapter 3
Getting around the Windows Desktop

Chapter 4
Sharing and Securing with User Accounts

Chapter 5
Troubleshooting Startup Problems

CHAPTER 1

What's New in Windows 10

IN THIS CHAPTER

New platforms

The Windows 10 Interface

Office universal apps

Cortana

A new browser experience

Xbox and Windows 10

Microsoft HoloLens

Microsoft Surface Hub

Other new features

If you have been using Windows 8 or Windows 8.1, you'll find Windows 10 both familiar and new. Windows 10 builds on the significant development done for Windows 8.x but adds improved usability. Windows 10 isn't just a tweak to Windows 8.1, however. Not only does Windows 10 offer a better user interface, but you'll find a long list of new and enhanced features.

If you are currently using Windows 7 or even Windows XP, you'll find Windows 10 to be a bit of a departure from your current experience in some ways. In other ways, Windows 10 isn't much different from Windows 7. For example, the Windows desktop still functions the way it does in Windows 7. With the changes introduced in Windows 8.1 and refined in Windows 10, you'll find that working in Windows 10 — whether on the Windows desktop or with the Start menu — is really not that different from your current experience. That means you can become productive with Windows 10 in a very short time.

In this chapter, we don't focus on the features you've encountered in previous versions of Windows — we explore the new and changed features in Windows 10. This chapter provides an overview of these features, and other chapters provide a deeper explanation. Although we can't cover every new feature in this chapter, we hope to give you a good overview of the key features and conceptual changes introduced in Windows 10.

Now, whip out that new Windows 10 tablet or PC, start reading, and start taking advantage of the great new features that Windows 10 has to offer.

NOTE

The first part of this chapter focuses on what is new in Windows 10, compared to previous editions of Windows (Windows 7 and Windows 8.x). See the section "Windows 10 Anniversary Edition Update," later in this chapter, for details on many of the new features and changes in Windows 10 build 1607, known as the *Windows 10 Anniversary Edition*.

New Platforms and Devices

One of the most significant additions to Windows 8 was its support for platforms other than the traditional PC. Windows 8 moved beyond the Intel and AMD x86 processor family to support System on a Chip (SoC) devices from both the x86 and ARM architectures. Windows 8.1 naturally also supported the ARM architecture, as does Windows 10.

ARM, which stands for Advanced RISC Machines, was developed by the company now known as ARM Holdings. Although you may not have heard of ARM processors, they are common in tablets, cell phones, MP3 players, gaming consoles, computer peripherals, and many other consumer electronics devices.

While the traditional PC portable form factor continues to shrink with ultra-light tablets and notebooks, SoC support for Windows 10 offers the capability to provide a Windows experience on small form-factor tablets, cell phones, and smaller handheld devices, in addition to the generally larger (and typically more powerful) traditional PC platforms. For ARM devices, the result is an opportunity for device manufacturers to provide a new selection of handheld devices running a Windows operating system (dubbed *Windows 10 IoT Core*) with support for applications like those in the Microsoft Office suite.

For users, it means a consistency of user experience across a broad range of devices. For example, your experience can be largely the same on your notebook, your tablet, and your cell phone. A single app can give you the same data and user experience across each device, with only small interface differences driven by screen size. Support for ARM also opens up some interesting possibilities for embedding Windows in consumer electronic devices. Someday soon your TV may be running Windows and giving you the same streaming experience as your PC. Devices such as these are loosely labeled as *Internet of Things (IoT)* devices.

Windows 10 Mobile and IoT Core

In addition to the more traditional PC editions for home, professional, and enterprise users, Windows 10 is available for a variety of IoT devices. Windows 10 supports a common

platform for universal apps and drivers across all of these types of devices, which further reinforces the capability to deploy apps across a very broad range of devices. But even with a common platform, the user experience on these three categories of devices is different depending in part on which edition of Windows 10 the device runs.

Windows 10 Mobile targets mobile devices and provides features such as a familiar and consistent user interface, instant on, and long battery life. Windows 10 Mobile supports universal apps, meaning an app developed for a desktop or tablet device can also run on a mobile device. Although Windows 10 Mobile does not support classic Win32/.NET apps, it provides lockdown capabilities to enable developers to create and deploy line-of-business (LOB) apps to mobile devices. For example, the app you use to submit and approve expense reports on your PC can also deploy and run on a special-purpose handheld device running Windows 10 Mobile as well as your Windows Phone, also running Windows 10 Mobile. Windows 10 Mobile is also available in an Enterprise edition that provides additional device management capability and security.

Windows 10 IoT Core is a small-footprint edition of Windows 10 with a subset of features that targets small devices and single-purpose devices, and has lower requirements for RAM, processer, and storage. Windows 10 IoT Core supports universal apps and drivers, the same development tools as for all Windows 10 devices, and the key features that Windows 10 provides on other platforms, such as security, update capability, manageability, and Windows apps.

NOTE

Apps designed for the new Windows 8.x and Windows 10 interface and available through the Microsoft Store were originally called *Metro apps*, then *Modern apps*, and now, simply *Windows apps*. Legacy apps written for previous editions of Windows are called *Windows desktop apps*. The term *Windows app* throughout this book refers to these modern Windows apps.

NOTE

Windows 10 IoT Core supports headed devices (those with a video display) as well as headless devices (those without a display).

However, Windows 10 IoT Core does not include any Microsoft branding or Windows UI, has no Windows shell or apps, and does not include the apps you would otherwise expect on a tablet or other multi-use device, such as Windows Explorer, the Mail app, or a browser. Windows 10 IoT Core is geared toward device-specific user experience scenarios. For example, a GPS manufacturer might design a GPS device that uses Windows 10 IoT Core as its operating system, or a wearable technology company might use Windows 10 IoT Core as the underlying OS for a new smart watch.

NOTE
Windows 10 IoT Core supports SoC devices as well as the Raspberry Pi 2 and 3 single-board computers. The latter enables hobbyists and developers to create Windows 10 apps for this credit card–sized device.

Xbox and Windows 10

Xbox has been the leading game console for several years, and although users have been able to control and integrate with their Xbox from a Windows 8.x PC, they could play Xbox games only on their Xbox consoles. Windows 10 changes that paradigm.

Windows 10 enables users to play Xbox games on their Windows 10 PCs and tablets. The games do not run natively on the PC, but instead stream from the Xbox to the other device using the Xbox app on the Windows 10 device. For example, if you're playing a game on your Xbox but need to move to another room, you pick up your tablet, connect to the Xbox, move to the other room, and continue playing.

If you have visions of playing Xbox games at work, that's still a dream (unless you have an Xbox at work). The only way Windows 10 streams is via Wi-Fi on a local network, and you can stream to only one device at a time. In addition, the game must be designed specifically to support streaming.

The Windows 10 Xbox app (Figure 1.1) enables you to stream compatible Xbox games to your Windows 10 device as well as to interact with your Xbox console and Xbox Live.

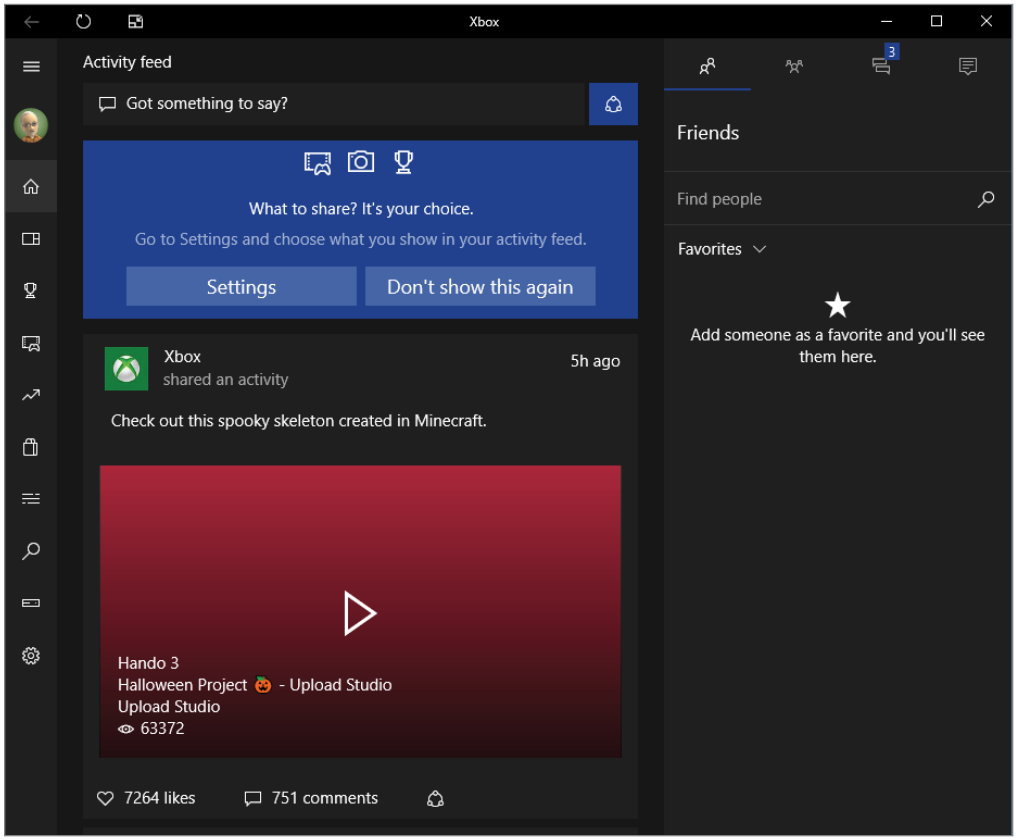
HoloLens

HoloLens is a new product from Microsoft that was conceptualized as part of the initial Microsoft Kinect project. HoloLens is essentially a wearable computer in the form of a headset that Microsoft touts as the "first fully untethered holographic computer" (see Figure 1.2). HoloLens is a perfect example of Windows 10 IoT in action. The device is fully self-contained and does not require an external computer to drive it.

HoloLens overlays holographic content on your real-world view for an augmented reality experience. The device has obvious potential in the gaming world, but even more so as a means for artists, engineers, educators, and many others to change the way we work, teach, and learn.

FIGURE 1.1

Use the Xbox app to stream games to your PC.



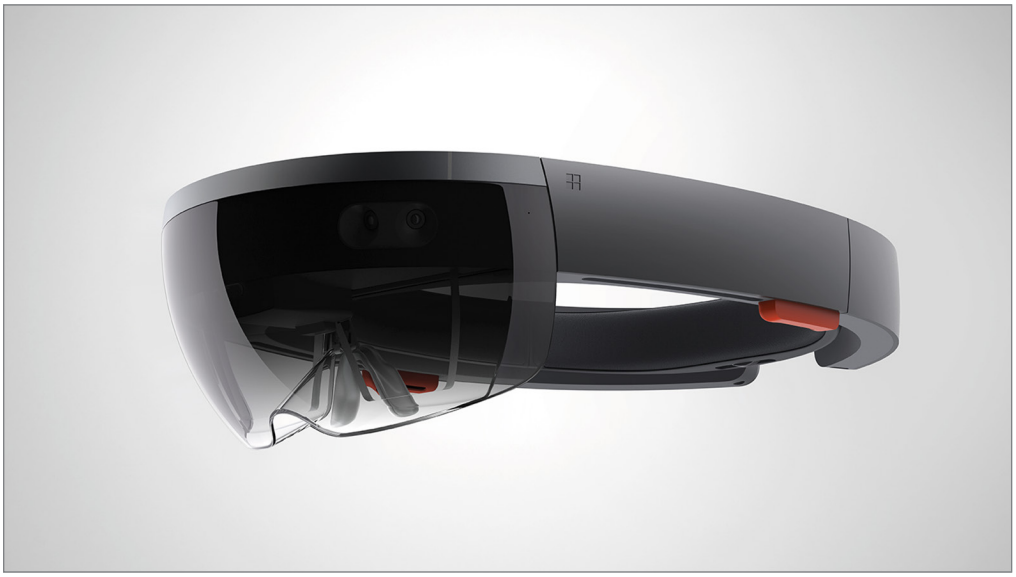
Surface Hub

Microsoft's Surface Hub is a large-screen, hybrid TV/computer/tablet device designed for in-person collaboration as well as video conferencing through Skype for Business. The Surface Hub is essentially a giant touchscreen TV with an integrated PC running

Windows 10 (see Figure 1.3). The Surface Hub includes built-in cameras, speakers, microphones, Wi-Fi, Bluetooth, and Near Field Communication (NFC). It uses OneNote to enable people to collaborate on a digital whiteboard, supporting both finger and pen input. Surface Hub also includes other Office apps as well as Skype for Business, and can run other Windows apps in a large-screen format. You can even connect apps from your personal device and drive them from Surface Hub.

FIGURE 1.2

Microsoft HoloLens is a wearable holographic PC running Windows 10.



Microsoft Surface Hub is available in two sizes, 55" HD and 84" 4K. A variety of stands and wall mounts are available to enable you to either position Surface Hub in a fixed location or move it as needed.

FIGURE 1.3

Microsoft Surface Hub is a large-format, touchscreen PC running Windows 10.

The Windows 10 Interface

Windows 8 represented a fairly significant departure from the traditional Windows interface found in previous versions, in large part to support a new genre of touch-enabled devices. Windows 10 maintains much of the user interface found in Windows 8.x, reintroduces some familiar legacy experiences, and introduces some new features. This section covers the most significant changes in the Windows 10 interface.

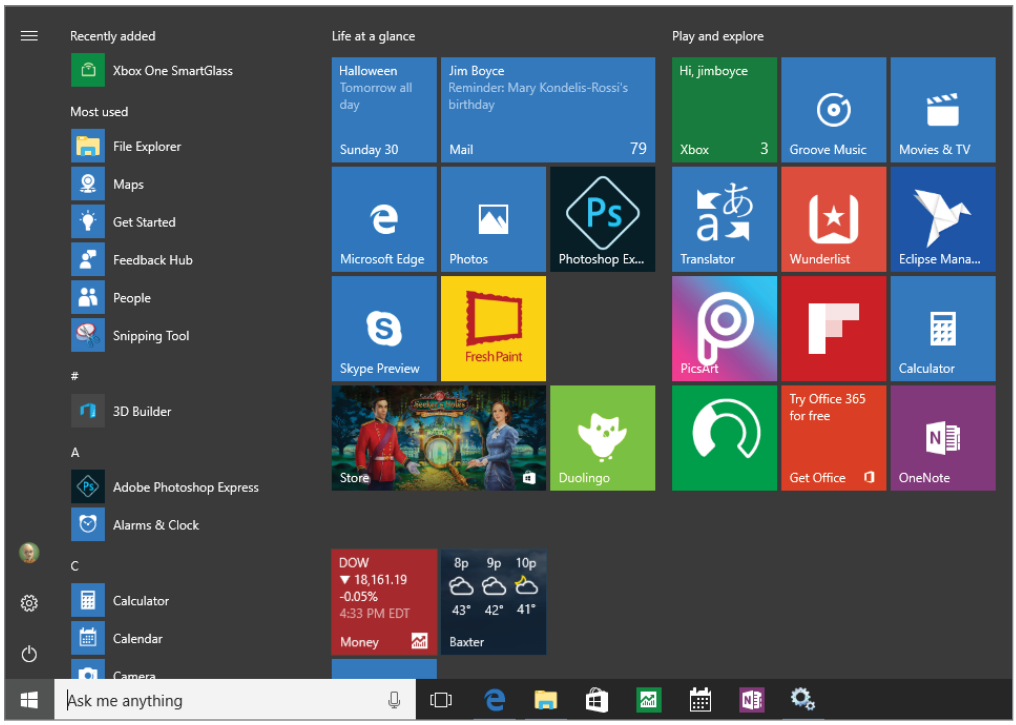
The Start menu

One of the main complaints from users about Windows 8, after they got past the Start screen, was the removal of the Start menu. Many users were accustomed to getting to their programs and settings through the Start menu. As Figure 1.4 shows, Windows 10 brings back the Start menu, although it is in a somewhat modified form that marries the Start menu with the Start screen.

Clicking the Windows icon in the lower left corner of the display opens the Start menu. On the left side of the menu are icons for your most used apps, links to commonly used resources such as File Explorer and Documents, and your apps in alphabetical order.

FIGURE 1.4

The Start menu is back in Windows 10.



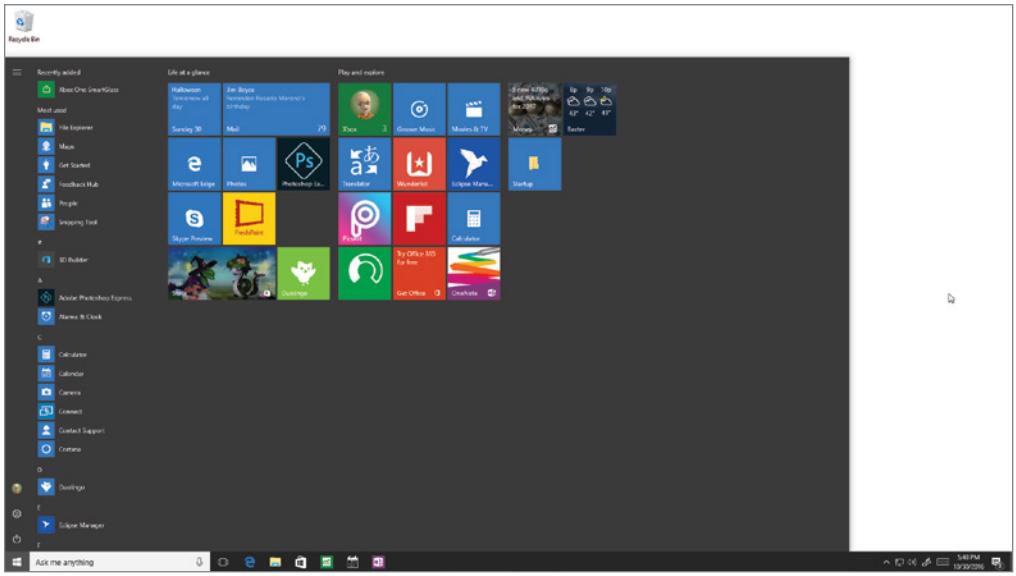
The right side of the Start menu should be fairly familiar to Windows 8.x users because it is similar in concept to the Start screen in Windows 8.x. Tiles on the Start screen give you access to apps, and, as on the Start screen, can display dynamic data within the tile (known as *live tiles*).

NOTE
The Weather and News app tiles are good examples of tiles that support live data.

Items in the lower-left part of the Start menu provide quick access to your account, Power options (such as Sleep, Shutdown, and Restart), and Settings. You can resize the Start menu like other windows, simply by dragging the edge of the Start menu to make it larger or smaller. Figure 1.5 shows the Start menu resized to a much larger size.

FIGURE 1.5

You can expand the Start menu to fill much of the display.



TIP
Just as you can with the Windows 8.x Start screen, you can modify the Start menu to add or remove tiles and group apps as you see fit.

The Windows 10 Start menu and the methods you can use to modify it are covered in other chapters.

Tablet Mode

Windows 10 Tablet Mode is intended to optimize the user's touch experience on tablet devices. Essentially, Tablet Mode switches the device to a full-screen Start menu and causes apps to open in full-screen mode. Apps that are already running in a window automatically switch to full-screen mode. Clicking the Restore button in Tablet Mode has no effect because no "windowed" app experience exists. However, you can drag apps to dock them.

You can turn Tablet Mode on or off through the Settings app. In addition, when you switch the device from a traditional desktop configuration to a tablet configuration, Windows 10 detects the change and asks if you want to enable Tablet Mode. For example, if you disconnect the keyboard from a Surface running Windows 10 or fold the keyboard to the back of the device to use it as a tablet, Windows 10 prompts to ask if you want to switch to Tablet Mode.

TIP

You can configure Tablet Mode behavior in the Settings app, configuring Windows 10 to always stay in the current mode without prompting you, prompt you to confirm a switch, or automatically switch modes without prompting.

The Taskbar

The familiar Taskbar is still a component of the Windows 10 interface; it behaves in much the same way as in previous versions of Windows. For example, if the Taskbar is unlocked, you can position it at any of the four edges of the display. Figure 1.6 shows the Taskbar docked at the left edge of the display.

You can pin apps to the Taskbar as you can in previous versions of Windows, including both Windows apps and legacy Windows desktop apps. The Taskbar retains the notification area, which shows icons and messages for running apps and services, with the date and time at the far right corner (when the Taskbar is docked at the bottom of the display). The Taskbar by default shows the Search box at the left next to the Start button. The Taskbar includes an icon for Task View, which is described in the following section.

TIP

The Taskbar remains when you switch to Tablet Mode, but changes slightly. For example, the Search box changes to a Search button and shortcut icons on the taskbar are hidden.

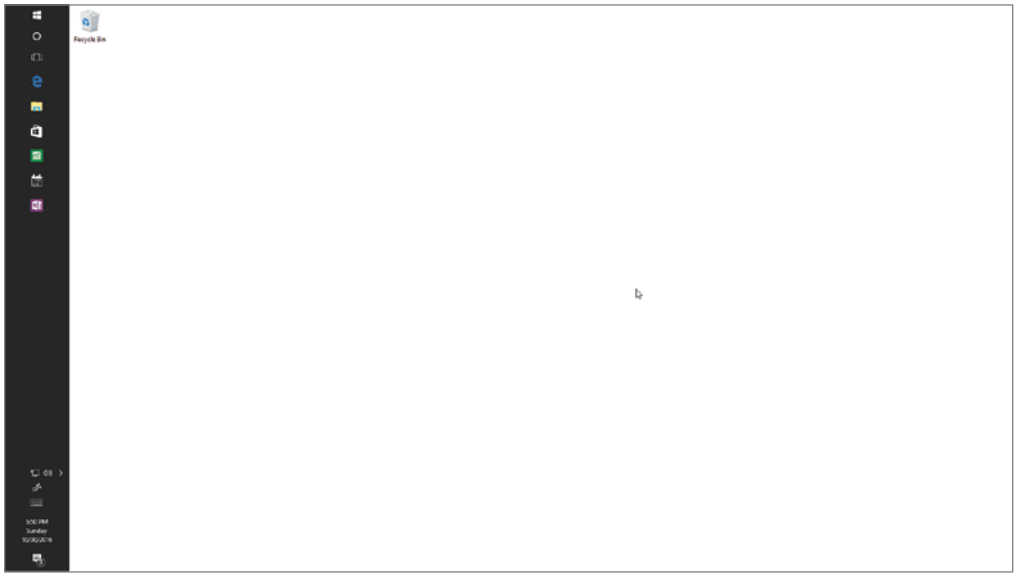
Task View

Experienced Windows users are familiar with the Alt+Tab feature in Windows, which enables you to switch between running applications. The Task View is a similar feature that is available from the Taskbar, both in desktop mode and Tablet Mode. Clicking or tapping the Task View icon in the Taskbar displays a filmstrip of the running apps (Figure 1.7).

You can then click or tap an app to make it active and bring it to the foreground. You can also close apps from the Task View by first highlighting an app and then clicking or tapping the close button in the upper right of the app's tile.

FIGURE 1.6

The Taskbar is docked at the left edge of the display.



TIP

Task View lets you switch between multiple virtual desktops, which are described in the following section.

Multiple desktops

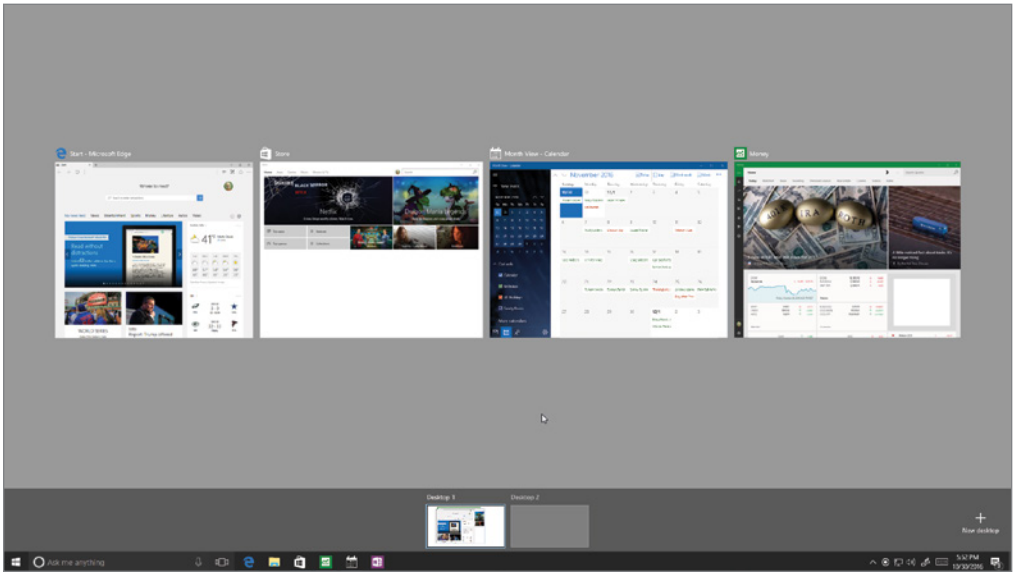
In Windows, the term *multiple desktops* refers to the capability to create more than one virtual desktop, each with one or more apps running on that virtual desktop, and switch between desktops. Windows has supported multiple virtual desktops for several years in multiple versions, although not as a mainstream feature. Windows 10 is the first version to offer multiple displays as a prominent feature of the interface.

If your device has multiple displays, you may be wondering why you would want to create multiple desktops; after all, you can simply move apps from one display to another and group them as needed. Multiple desktops let you group together apps onto a virtual

desktop. Although they are most useful on single-display devices, multiple desktops can also be useful on multi-display devices.

FIGURE 1.7

Use the Task View to switch between running apps.



For example, you may be multitasking between work and personal activities. In this scenario, you can create a desktop for your work apps and another for your personal apps and switch between the two desktops as needed. Even on a multi-display device, you may find multiple desktops useful for helping you group specific apps together so you can focus on them as a set.

Creating a virtual desktop is easy. Just open the Task View from the Taskbar and click or tap New Desktop. Then open the apps that you want to use on that desktop. When you need to switch between desktops, either use the Task View or press Windows Key+Ctrl+Left Arrow or Windows Key+Ctrl+Right Arrow.

Action Center replaces Charms bar

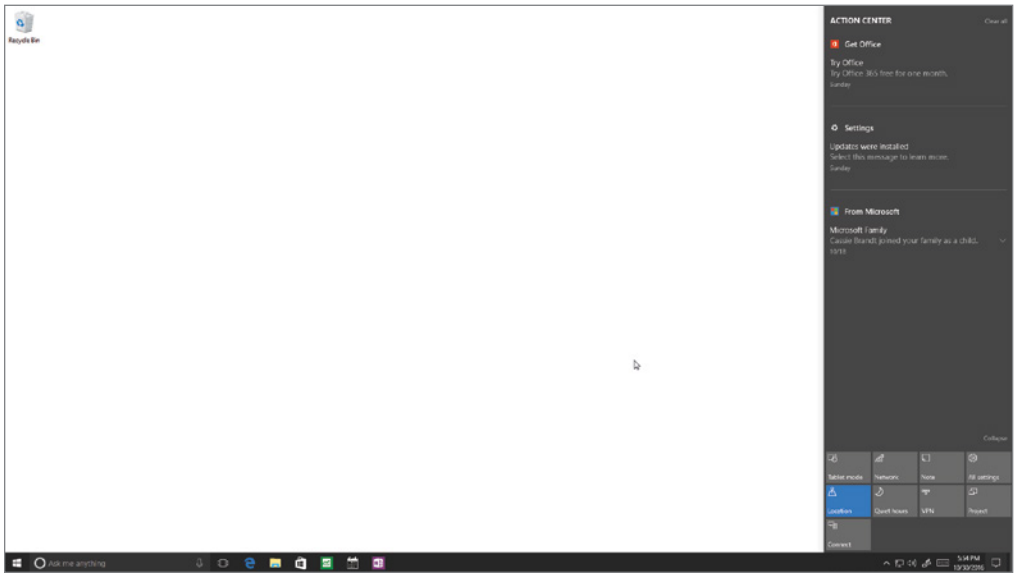
One of the Windows 8.x interface elements that is gone from Windows 10 is the Charms bar. In Windows 8.x, the Charms bar expands out from the right side of the display to give you access to settings, device functions, search, and other features. Many of these items have

been moved into other parts of the Windows 10 interface. For example, Search has been integrated into the Taskbar.

Even though the Charms bar is gone, something similar to it remains in Windows 10. In the Taskbar, next to the date and time, is a Notifications button that, when clicked or tapped, displays the fly-out interface element called the Action Center, shown in Figure 1.8.

FIGURE 1.8

The Action Center replaces some of the functions in the Charms bar.



The Action Center shows notifications, and through a selection of tiles at the bottom, gives you quick access to the Settings app, tablet mode, airplane mode, and other settings and features. When you need to change display brightness, for example, open the Action Center, tap the Display tile, and then use the brightness slider in the Settings app that subsequently opens.

Web Browsing

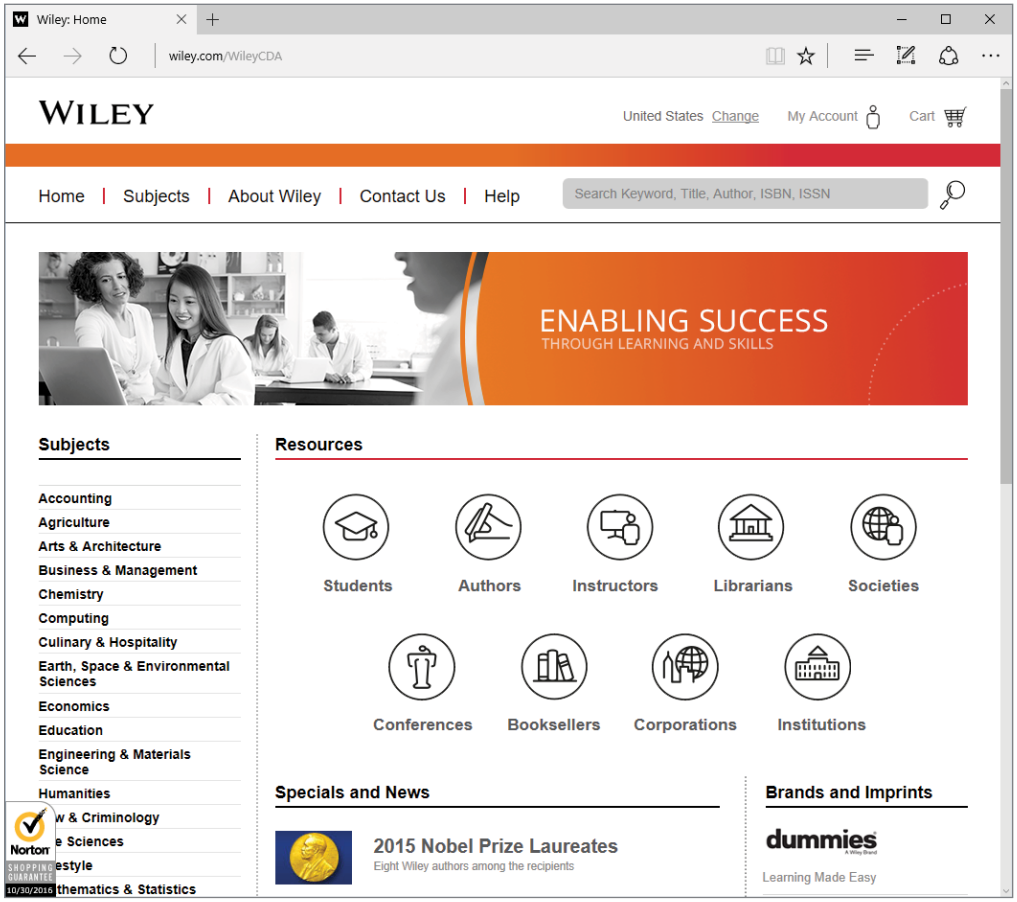
Internet Explorer (IE) has long been a love/hate app. Some users love it, but other users hate it (and often move to Firefox or Chrome because of IE's drawbacks). In addition, application compatibility for line-of-business apps and in-house apps has long been a

consideration with IE for businesses that have sometimes struggled to keep their apps compatible with IE as the browser evolved.

Windows 10 ships with a new browser named Microsoft Edge (Figure 1.9). Some of the key goals of the Edge development team were to streamline the interface, integrate Cortana for faster search and better discoverability, optimize browsing across multiple platforms, provide a great experience on touch devices, and add features such as the capability to annotate web pages. Edge is a single browser designed to work across the entire Windows 10 device family.

FIGURE 1.9

The Edge web browser provides a streamlined browsing experience.



Edge moves from the markup used in IE to the same markup used in other modern browsers. Edge introduces a new proprietary rendering engine, dubbed EdgeHTML, that replaces the Trident rendering engine found in IE. In the initial beta releases of Edge, the new browser incorporated both the legacy Trident rendering engine and the new Edge rendering engine. During the development cycle, however, Microsoft decided to use only the Edge engine in Edge. In order to support legacy sites that require the Trident engine, Windows 10 ships with both the new Edge and legacy IE 11 browsers. Organizations can choose to designate the default browser through group policy, enabling them to ensure that IE 11 is the users' default browser if needed to support intranet sites or line-of-business apps that require IE compatibility.

In addition to a new rendering engine, Edge also integrates Cortana as a built-in search assistant, a new reading list that enables you to gather content to read and even export web pages to PDF, and as mentioned previously in this section, the new inking features that enable you to mark up and annotate web content and share those comments with others.

Cortana

Cortana, named for the fictional artificial intelligence character in the Halo game series, was introduced on the Windows Phone 8.1 platform. It is an intelligent personal assistant that can help you set reminders, perform searches, answer questions, recognize music, and launch apps using voice or text commands. If you speak a question, Cortana typically speaks the answer. If you type a question, Cortana answers with a text response.

Cortana (if you let her) can learn about you, your interests and habits, locations you often visit, and other information to simplify your work or personal life. For example, Cortana can search for and detect flight schedules in your e-mails and add the information to your calendar for you, or identify tracking information in e-mails to keep you up-to-date on whether your online orders are in transit or still sitting in the seller's warehouse.

Office Universal Apps

Windows 10 includes touch-optimized versions of the popular Office apps Word, Excel, PowerPoint, and OneNote. The apps are preinstalled on Windows phones and small tablets running Windows and are available as a download from the Windows Store for other devices. These apps enable you to view and edit Office documents and send and receive e-mail. Although the Office apps included with Windows 10 don't give you the same range of features as the full versions of the Office suite, they provide the most commonly used features for reading and editing documents and can minimize the number of times you need to switch from your phone or tablet to your PC to work with a document.

The Windows Store

Another change in Windows 10 is a complete revamp of the Windows Store. A key aspect of this change is that the Store is a single point of app delivery supporting phones, tablets, and PCs. In addition, IT organizations can deploy a customized version of the Windows Store that integrates in-house apps and public apps. A web-based management interface enables IT staff to assign apps, manage updates, and accomplish other Windows Store management tasks. So, when you need that line-of-business app installed on your new work PC running Windows 10, you can open the Windows Store and download it.

Another important change in the new Windows Store is the type of apps you can download. Previously, the Windows Store supported only Windows apps. The revamped store enables you to obtain Windows apps, traditional Windows desktop apps, and hosted web apps. The latter enable developers to convert components of their web sites into apps that they then make available through the Windows Store. These web apps are hosted on the vendor's infrastructure rather than being downloaded to the users' devices but have access to the notifications, camera, calendar, Cortana, and other features on the device.

Finally, the new Windows Store integrates content as well as apps. You can purchase and stream TV shows, movies, and music from the Windows Store to your Windows 10 devices.

Windows 10 Anniversary Edition Update

Windows 10 build 1607, known as Windows 10 Anniversary Edition, includes several updates and new features that were developed during the first year after Windows 10's initial release. This section explores many of these features and updates.

Start menu tweaks

One update in the Anniversary Edition is a collection of small changes to the Start menu. Previously, the Start menu displayed your most recently used apps and a selection of icons for common items including File Explorer, Settings, and Power. Clicking All Apps showed an alphabetized list of all installed apps. In the new Start menu (Figure 1.10), the Start menu by default shows your most-used apps and recommended apps, along with what was formerly the All Apps menu. Buttons at the left edge of the Start menu give you access to your account, Settings, and Power.

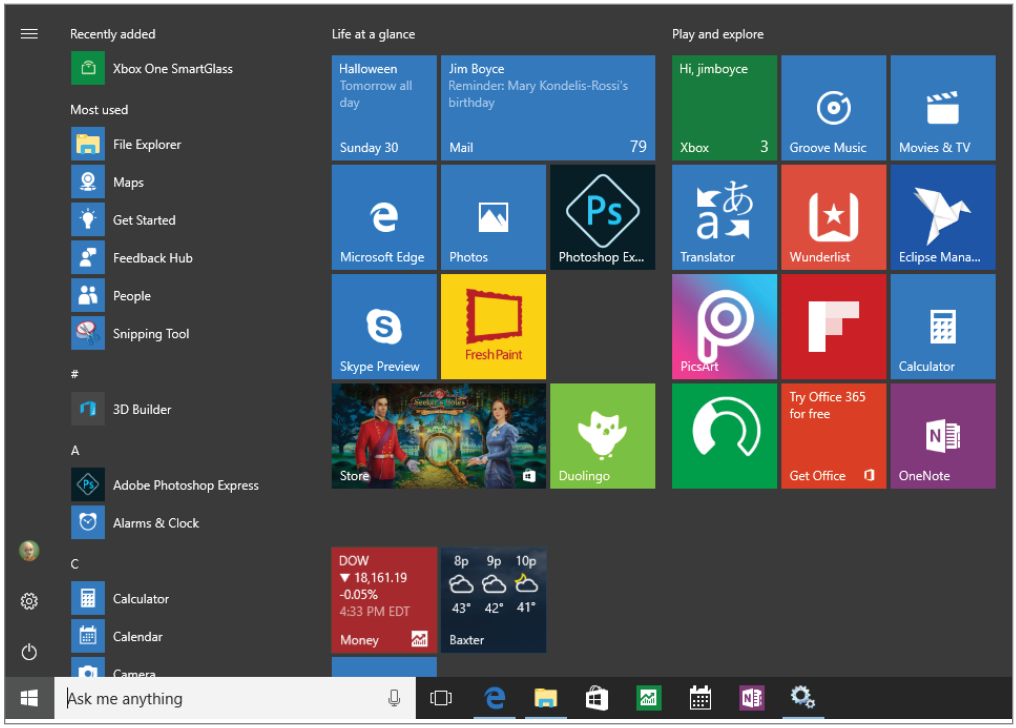
Action Center updates

Like the Start menu, the Action Center sees a bit of a change in the Anniversary Edition. You'll find Cortana now integrated into the Action Center, where it can offer alerts and notifications on things like stocks, sports scores, and more. The Action Center layout is also

improved, grouping notifications so that a single, chatty app doesn't fill the Action Center and hide notifications from other apps.

FIGURE 1.10

The Start menu has been updated.



Notification badges

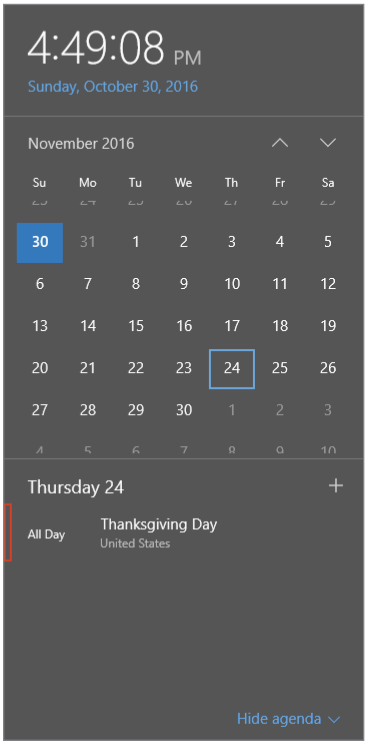
Universal Windows Platform apps can now display information on their taskbar icons. For example, a UWP mail app could display the number of new messages in your Inbox. Note that notification badges are not available for legacy Windows desktop apps, or for Windows apps that are not developed as UWP apps.

Taskbar calender

The taskbar calendar is improved in build 1607 to add meetings and events, as shown in Figure 1.11. You can view the items in the calendar, or click on an item to open it in a window, as shown in Figure 1.12.

FIGURE 1.11

The taskbar Calendar is much improved.

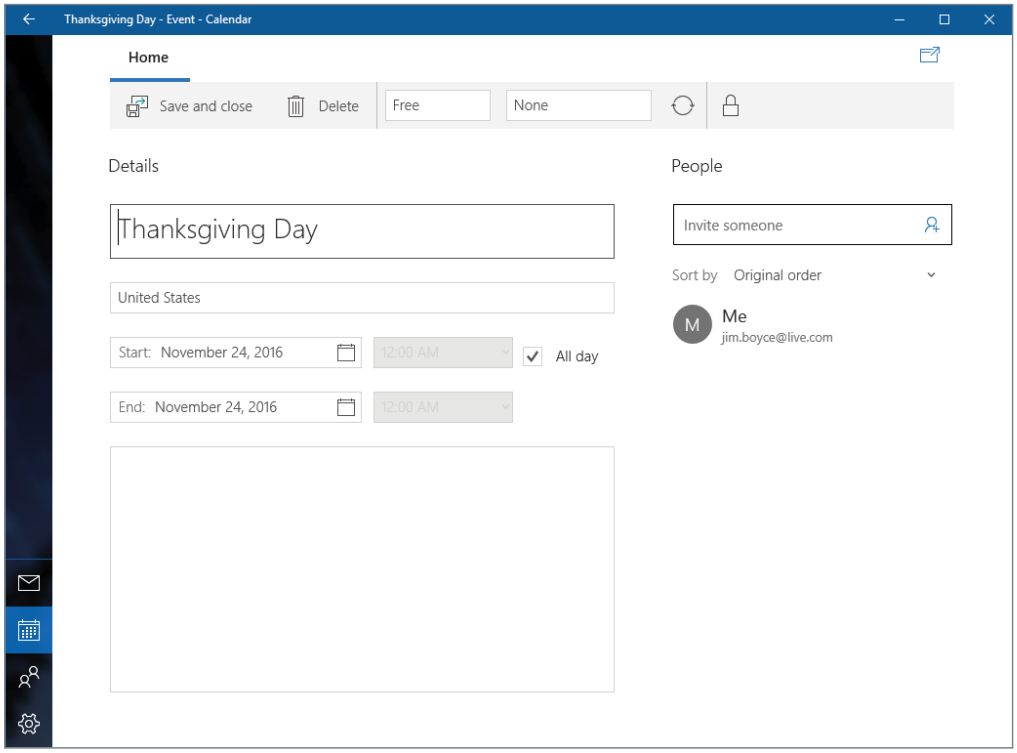


Pin apps to all virtual desktops

Virtual desktops in Windows 10 enable you to create multiple workspaces in Windows, each with its own set of apps. Previously, an app in Windows 10 appeared only on a single virtual desktop. With the Windows 10 Anniversary Update, you can pin an app to all virtual desktops, which is useful when you want to keep a particular app visible and easily accessible from every virtual desktop. To pin an app in this way, press Windows Key + Tab to open the Task View, then right-click the app and choose Show This Windows on All Desktops.

FIGURE 1.12

You can open calendar items from the taskbar.

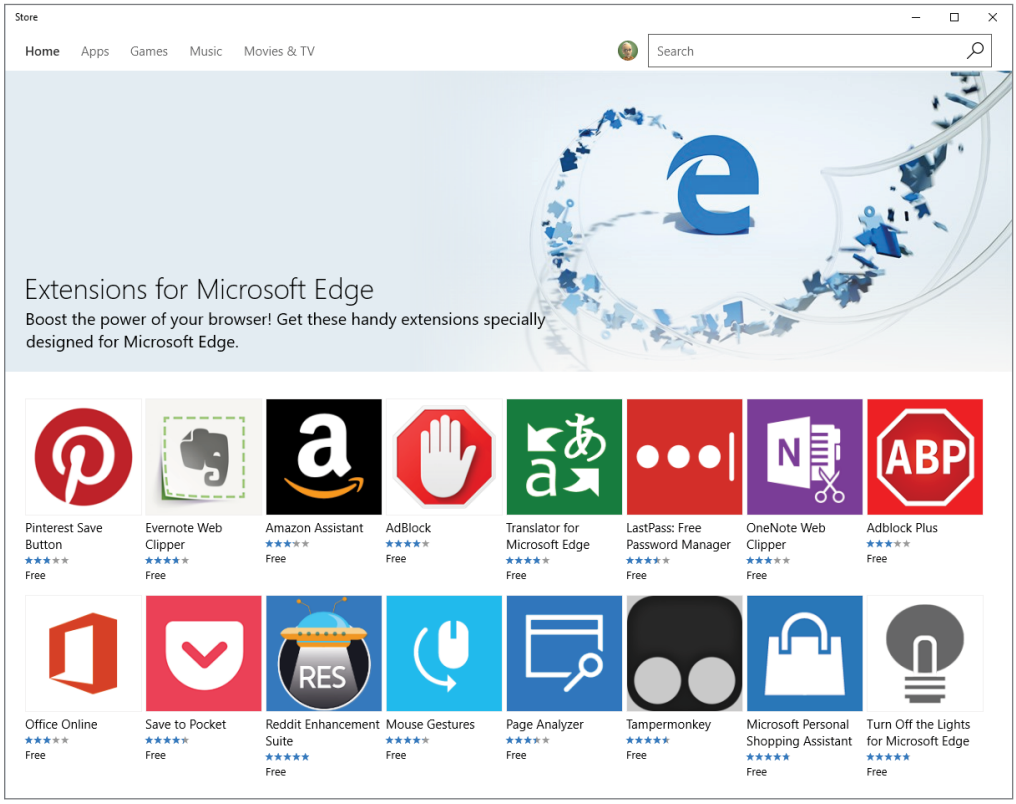


Edge improvements

Edge, the new web browser introduced with the initial release of Windows 10, gets some welcome improvements in the Anniversary Edition. For example, Edge now supports extensions. This capability enables developers to extend Edge with new features, such as ad blocking and enhanced experiences for certain sites like Amazon. To add extensions, click the ellipsis in the upper right corner of the Edge window and choose Extensions. Then, click Get Extensions from the Store. Figure 1.13 shows the Store with Edge extensions available as of this writing.

FIGURE 1.13

Use extensions to add new features to Edge.



Xbox Play Anywhere

This new feature enables you to buy a game from the Store and play it on a Windows 10 PC as well as an Xbox One console, with settings, game saves, and other game data moving from device to device along with the game itself. Games must be specifically written to support Xbox Play Anywhere, but this new feature will be a welcome addition for gamers.

And more

Windows 10 Anniversary Update offers many more new features in addition to the ones covered in this chapter. For example, a Dark Theme is now available for users who want a darker color scheme. This feature is particularly helpful if you use your device in darker environments. An Activation Troubleshooter helps you work through Windows activation problems. Some additional features for Windows Ink improve the user experience when

using a stylus. Cortana also has several enhancements and improvements, not only making it function better but also integrate within more apps.

You'll find additional enhancements and new features scattered throughout Windows 10. What's more, a host of new features have also been announced for the next Windows 10 update, named the Windows 10 Creators Update, due out in early 2017. With the new Windows 10 release model, you can be sure to see new features appear throughout the year.

Wrapping Up

Windows 10 is by far the most significant change in the Microsoft operating system ecosystem, potentially rivaling the shift from DOS to Windows in the early days of the PC.

This chapter scratched the surface of what's new in Windows 10. Some of the topics, such as HoloLens, Surface Hub, and Windows 10 IoT are not covered in detail in this book. Instead, we focus on helping you understand how to interact with and get the most from Windows 10 on your PCs and tablets. Where appropriate, we cover mobile devices and the key features that Windows 10 brings to these devices.

Your next step is to dive into Windows 10 and become familiar with the user interface. Chapter 2, "Navigating the Windows 10 Interface," helps you do just that. So, turn the page and dive in!

CHAPTER 2

Navigating the Windows 10 Interface

IN THIS CHAPTER

Introducing the Windows 10 interface

Using the Start menu

Using the Action Center

Using the taskbar

Working with Windows 10 apps

Getting to the desktop

If you've been using previous versions of Windows for a while, you're no doubt familiar with the Windows desktop and how to work with Windows and Windows applications. If you've been using Windows 8.x, you'll find the transition to Windows 10 easy. If you've been using Windows 7 or earlier, however, you may find the Windows 10 interface very different. Gestures such as swipe, tap, tap and hold, slide, and so on may be foreign concepts. Fortunately, Windows 10 uses many of the same general gestures and actions you find on other touch-based devices. So, the Windows 10 interface should feel familiar to you.

If you don't have much experience with touch interfaces, this chapter gets you up to speed. You learn to navigate through the Windows 10 interface, use modern Windows apps, and even work with that familiar Windows desktop! Armed with some basic concepts, you'll be navigating the Windows 10 interface like a pro in no time.

If you've been using Windows 8.x for a while and are new to Windows 10, this chapter helps you understand the changes that Microsoft introduced in Windows 10. These changes make Windows 10 easier to use, particularly for those of us who missed the Start menu in Windows 8.

NOTE

The interface in the Anniversary Edition of Windows 10 is slightly different from the initial Windows 10 release. This chapter assumes you are running the Anniversary Edition.

Introducing the Windows 10 Interface

The interface introduced in Windows 8 and fine-tuned in Windows 8.1 represented a shift toward touch-based interaction with the Windows operating system and applications, driven in large part by the growth of the tablet and handheld device markets. Although Windows 10 continues that touch-based focus, the Windows 10 interface is not only about touch; it's also about simplification and putting data and applications within easy reach. In addition, Microsoft has melded the positive aspects of the new interface with the Start menu familiar to users of Windows 7 and earlier versions.

If you have configured Windows Hello on your device and it has a Windows Hello–compatible camera, Windows 10 tries to recognize you and log you on automatically. If not, Windows 10 displays the Windows 10 logon screen (see Figure 2.1), which you use to log in to the device. Although Chapter 3 explains how to log in and out of Windows, we cover it briefly here. Windows displays a list of user accounts available on the device (see Figure 2.1) with the most recently used account shown in the middle of the display. To log in with the most recently used account, just tap or click in the Password box, type the password for the account, and press Enter or tap the arrow key beside the Password box. Or, if you have created a PIN on the device or have a virtual smart card installed, you can click the corresponding icon below the password box and type the PIN. To use a different account, tap (touch or click) on a user in the list at the left corner of the display, enter the password for that user account, and then press Enter or tap (or click) the arrow icon to the right of the password field.

If the device is locked but your account is logged on, Windows displays the same logon screen shown in Figure 2.1. As when logging on, just type your password and then press Enter or tap the arrow key.

After you log in, you see the Windows 10 desktop, shown in Figure 2.2. The desktop should be familiar to you, regardless of which version of Windows you have used previously, because the desktop is a key feature of all previous versions of Windows. However, the Windows 10 desktop is a little different from the others.

The first difference is the Start menu. To open the Start menu, click the Windows button at the left edge of the taskbar. As shown in Figure 2.2, the new Windows 10 Start menu is a melding of the Start menu found in Windows 7 and the Start screen found in Windows 8.x. On the left are frequently used apps, settings, and folders, and on the right are tiles for apps. You can start an app just by clicking or tapping on its tile or in the list at the left of the Start menu.

Before we dig deeper into the Windows 10 interface and its elements, let's look at the gestures and actions you can use within the interface.

FIGURE 2.1

The Windows 10 Logon screen.

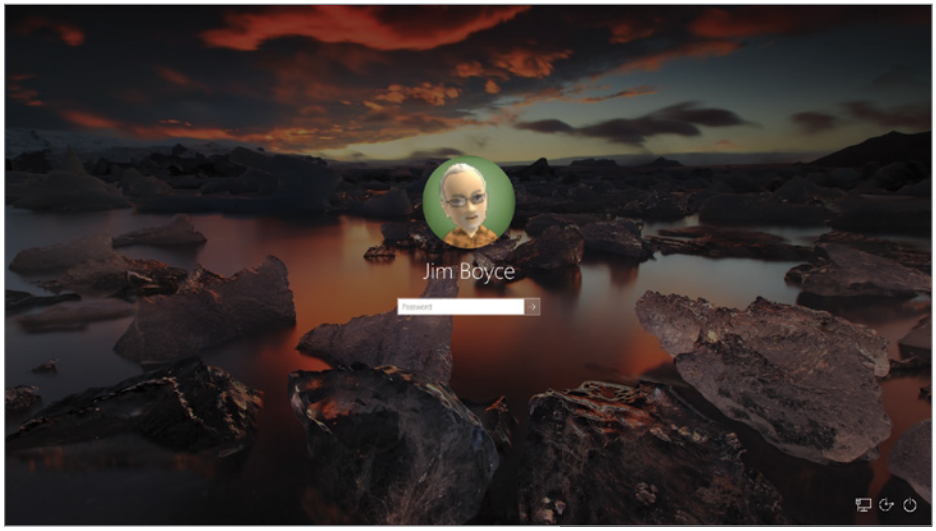
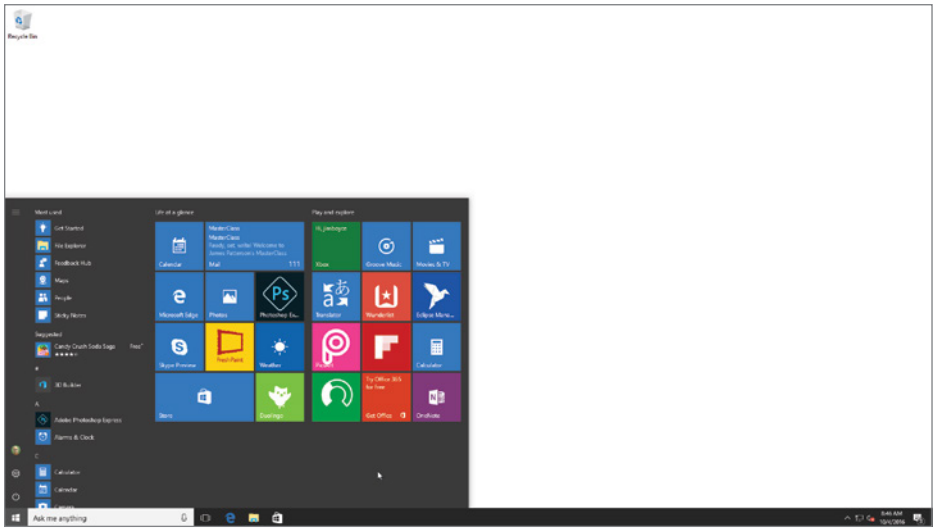


FIGURE 2.2

The Windows Start menu and desktop.



Working with Gestures and Mouse Actions

There are a handful of touch-based gestures you'll use with Windows 10, along with mouse-based alternatives for use on non-touch devices (or when you have a mouse connected to a touch device). The following list summarizes Windows 10 gestures, along with corresponding mouse actions:

- **Tap/Left-click:** Touch a finger to the object you want to select, and then remove your finger from the screen. With a mouse, left-click the object (point to it, click the left button, and then release the button).
- **Tap and hold/Click and hold:** Put a finger on the object you want to select, and hold your finger there. Tap and hold is typically followed by another gesture, such as sliding. For example, to relocate a tile on the Start screen, you tap and hold the tile, and after small buttons appear on the right corners of the tile, you can slide it to a new location. The equivalent mouse action for tap and hold is left-click and hold.
- **Swipe:** Slide your finger across the display, left, right, up, or down. For example, to view the tiles at the right side of the Start screen if they're off-screen, swipe from right to left.
- **Slide (drag)/Click and drag:** After you've selected an object, you can slide it on the display. Tap and hold to select the object, and then simply slide your finger across the screen to move the object. The mouse equivalent is to click and drag the object.
- **Swipe from the edge of the screen inward:** There are a handful of tasks you can accomplish by swiping from the edge of the display in toward the middle of the screen. For example, swiping from the left edge lets you switch between apps. Swipe from the right edge to display the Action Center. The mouse equivalent varies depending on the task. To view options for the app, right-click the app.
- **Pinch:** Place two fingers on the screen and move them apart or toward each other to zoom in or out, respectively.

Using the Start Menu

Now that you know some basic gestures and their corresponding mouse actions, you're ready to start navigating around the Windows 10 interface, starting with the Start menu, previously shown in Figure 2.2. Use any of these actions to open the Start screen:

- Press the Windows key on the keyboard.
- Use the mouse to place the cursor at the bottom-left corner of the screen, and then click the Start menu icon.

To move around the Start screen on a touch device, simply swipe the display up or down to view additional tiles. Then, tap a tile to open its associated app. You can also use the scroll wheel on the mouse to move through the Start menu.

You'll find that tiles on the Start menu can be *live,* meaning they can dynamically display information. For example, after you add an account to the Mail app, the app tile shows

a preview of messages in your Inbox. The Weather tile is also live; it shows the current weather conditions (assuming your device is connected to the Internet). Other tiles show similar dynamic data. Figure 2.3 shows some examples of live tiles.

FIGURE 2.3

Live tiles on the Windows Start menu.

TIP

On a touch device, swipe from the left edge of the screen to display the Task view, which you can use to switch among running apps.

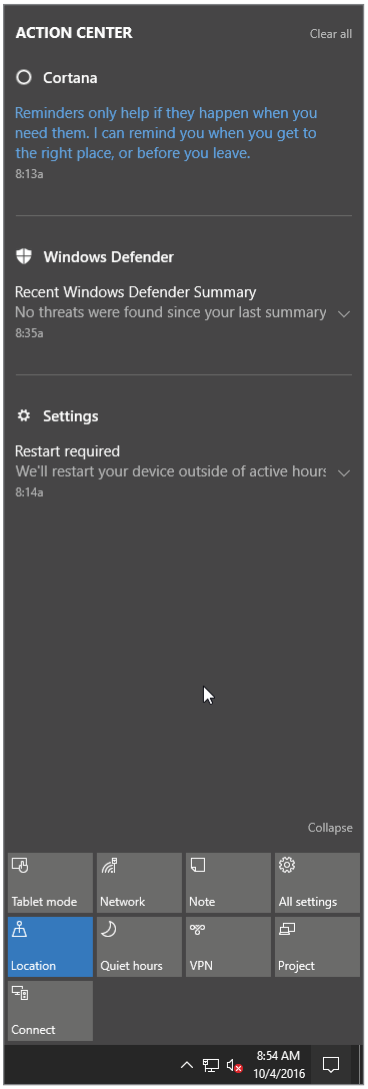
Using the Action Center

The Action Center (Figure 2.4), located at the right edge of the display in Windows 10, replaces the Charms bar found in Windows 8.x. To open the Action Center, click or tap the Notifications button on the taskbar just to the right of the time and date. Or, slide in from the right edge of the display.

Where the Charms bar gave you access to settings, devices, search, and a handful of other functions, the Action Center integrates many of those features with system notifications. For example, using the Action Center, you can quickly switch between tablet mode and regular mode, turn on or off airplane mode, and access display and other settings.

FIGURE 2.4

Access settings with the Action Center.

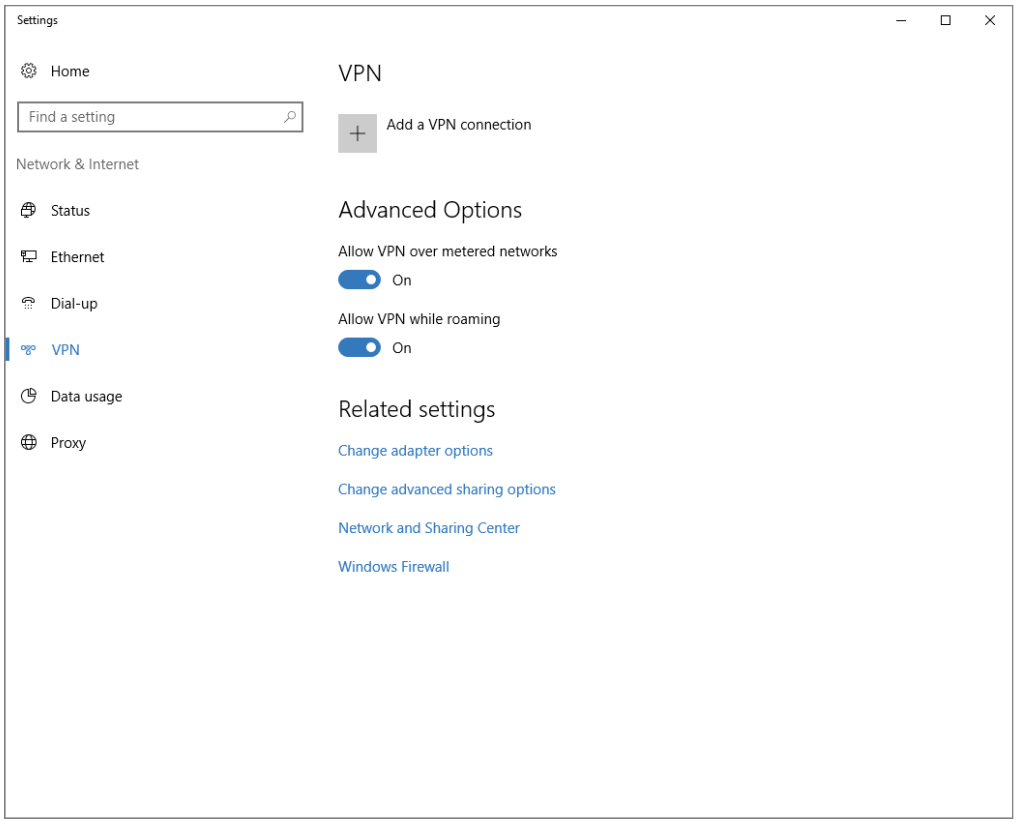


Using the Action Center is fairly intuitive. Some of the buttons on the Action Center pane function as toggle switches that turn functions on or off. Examples include tablet mode, airplane mode, and rotation lock. Other buttons open the Settings app to enable you to change settings. For example, if you click or tap VPN in the Action Center, The VPN page of the Settings app opens (see Figure 2.5).

In addition to buttons for settings and modes, the Action Center shows system notifications, if any are present.

FIGURE 2.5

The VPN page of the Settings app controls VPN connections and settings.



Working with Windows 10 Apps

If you're working on a traditional PC with Windows 10 installed, some (potentially many) of your apps will be "traditional" Windows apps. But, as more and more modern Windows apps are published, you'll no doubt have several favorites. On touch devices such as tablets and smaller handhelds, many of your apps will probably be modern Windows apps.

NOTE

The term *Windows app* refers to an app that is designed for Windows 8.x and later Windows versions. Formerly called *Metro apps* after the original name for the Windows 8 interface, Windows apps generally have a streamlined, minimalist appearance. Legacy Windows apps created for Windows 7 and earlier are called *Windows desktop apps*.

In general, working with a Windows app should be fairly intuitive. The gestures and actions you use to work with the Start menu and other Windows 10 screens are the same for apps. For example, to scroll up or down in the Maps app, just swipe up or down.

Rather than focus on specific modern Windows apps, this section of the chapter focuses on actions and methods you use in general to work with Windows apps.

Opening and using a Windows app

Opening a Windows app couldn't be any easier. Just open the Start menu, locate the app's tile, and tap or click the tile. If you're working on a non-touch device, and you have a mouse with a scroll wheel, you can use the wheel to scroll through the Start screen's tiles. Then, just click the tile for the app you want to open.

Unlike in Windows 8.x, which runs Windows apps only in full-screen mode, Windows 10 enables you to run apps in a window or full screen and change between full screen and windowed mode just as you can with a legacy desktop app. When Windows 10 is running in tablet mode, however, all apps run full screen. When running in a window, the apps display minimize, maximize, and close buttons just like a desktop app. Use these buttons to change the window state.

How you work in a Windows app depends entirely on the app, but relies on the standard touch gestures and mouse actions described earlier in this chapter.

NOTE

The term *Windows app* refers to apps written for Windows 8.x or later versions. In this chapter, the term *app* refers to these Windows apps.

Snapping apps on the screen

At first, it may seem that you can view and work with only one app at a time when running in tablet mode because all apps run full screen by default. But, you can actually

snap two apps to the screen at once and easily switch between them. You can even view the desktop and any running apps there side-by-side with an app, or snap a legacy app beside a modern app.

To snap two apps to the screen, follow these steps:

1. Open the two apps.
2. Using the app's title bar, drag the app to the left or right side of the screen. Either action snaps the second app to the left or right of the screen. If the title bar isn't visible, slide down from the top of the display over the app to make the title bar visible.

Figure 2.6 shows two apps snapped side-by-side.

You can snap a modern Windows app beside a legacy app, enabling you to see and work with a traditional Windows app on the desktop while also using a modern Windows app. For example, Figure 2.7 shows the Windows 10 Store app snapped beside Notepad.

To snap the desktop and a modern Windows app, first switch out of tablet mode (if the device is not already in window mode). Then, open the app in a window. If you want to work with a desktop app, open it from the desktop or Start menu. With either app in the foreground, drag the title bar of the other app to the left or right side of the screen to dock the app. You can drag the edge of an app's window to resize it as needed.

FIGURE 2.6

Two Windows apps snapped side-by-side.

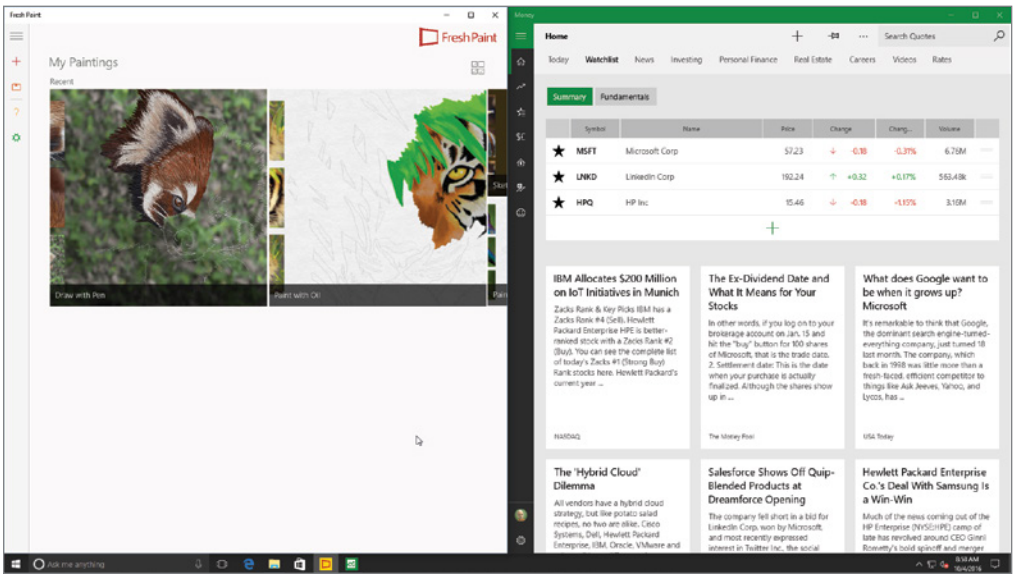
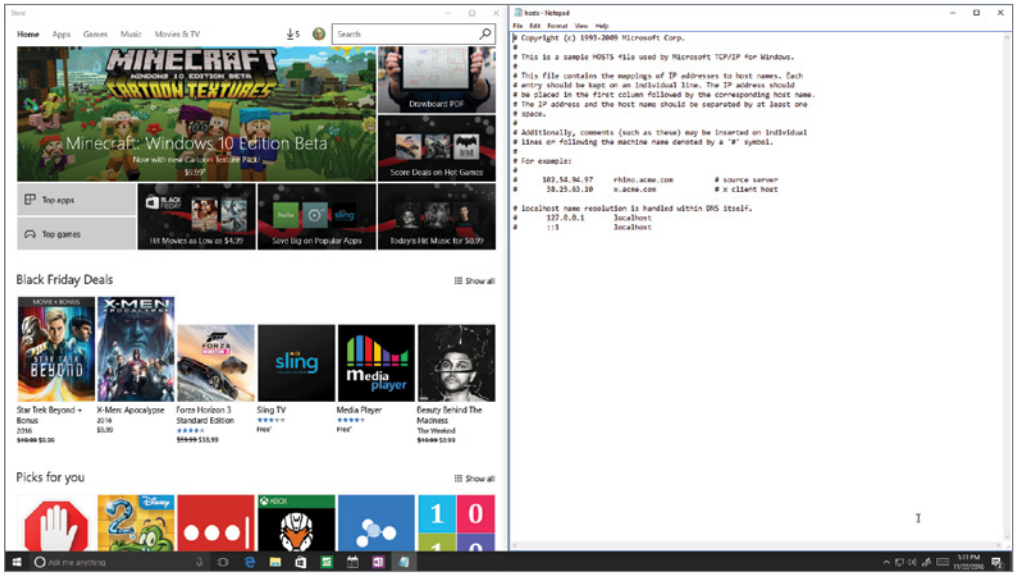


FIGURE 2.7

Notepad and a Windows 10 app snapped side-by-side.



Switching between apps

If you're an experienced Windows user, you'll be happy to learn that the methods you've used in the past to switch between apps are still available in Windows 10. For example, you can press Alt+Tab to view a list of running apps (see Figure 2.8) and select one to bring to the foreground. Continue pressing Alt+Tab until the desired app is highlighted; then release the keys to switch to that app. You can also press Windows+Tab or swipe in from the left edge to open the task view showing thumbnails of your running apps (see Figure 2.9). Click or tap on an app to bring it to the foreground.

FIGURE 2.8

Use Alt+Tab to switch between apps.

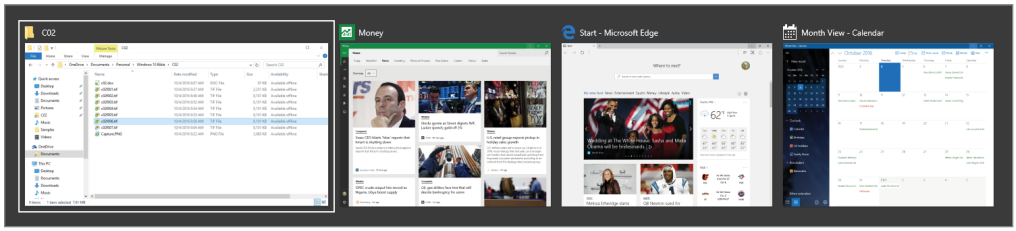
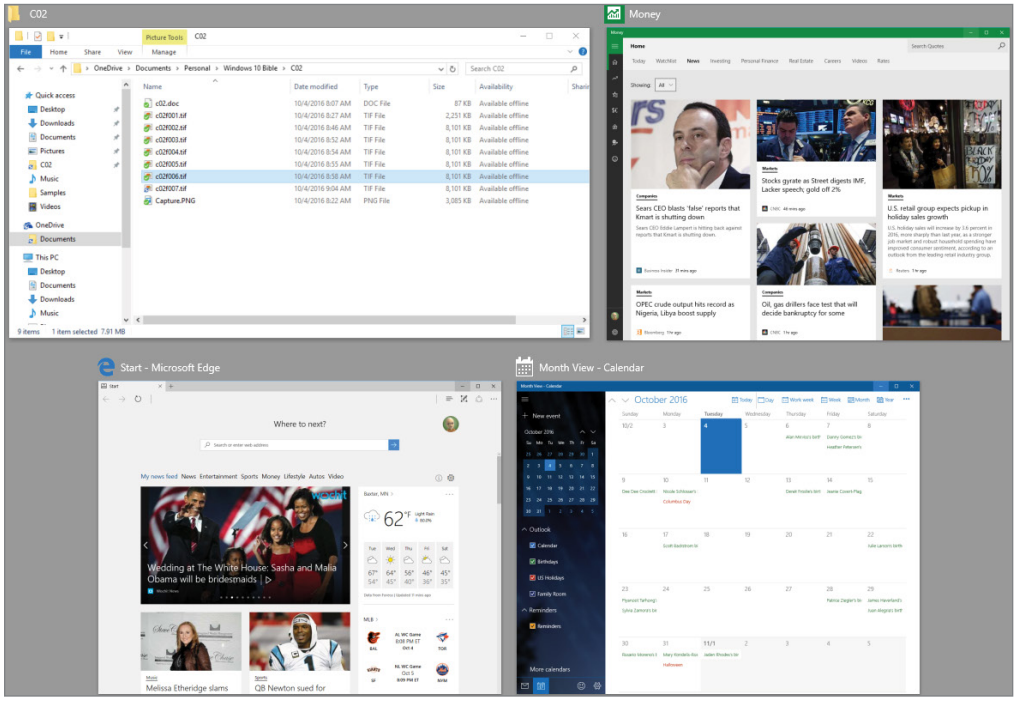


FIGURE 2.9

Use Windows+Tab to switch between apps.



Closing a modern Windows app

Closing a modern Windows app is easy, although you may not have figured it out on your own if Windows 10 is running in tablet mode. Just grab the app at the top and drag it down to the bottom of the display.

This method isn't very intuitive, but it's the easiest way to close a app. When using a mouse, move the cursor to the top of the app until the title bar appears; then click and drag the app by its title bar to the bottom of the screen. When using a touch device, swipe down from the top to the bottom of the screen. The app should close.

Getting to the Desktop

Unless Windows 10 is running in tablet mode, the desktop has the same prominence as in Windows 7, which means that if you aren't running any apps in full screen mode, you see the desktop. If you can't see the desktop, you can simply minimize apps until it is visible.

Or, you can click the right edge of the taskbar (to the right of the Action Center button) to minimize all apps.

If Windows 10 is running in tablet mode, you can bring a desktop app to the foreground by tapping or clicking Task view in the taskbar and selecting the app. You can also use the Alt+Tab and Windows+Tab methods described previously in this chapter. If you truly need to view the desktop, for example to access a shortcut on the desktop, simply take the device out of tablet mode using the Action Center.

Using the Taskbar

The Windows taskbar remains a prominent fixture on the Windows 10 desktop and is visible even if you are running Windows 10 in tablet mode. The Windows taskbar deserves mention here, if for no other reason than that you probably want to pin apps to the taskbar so you can get to them quickly from the desktop.

Figure 2.10 shows the taskbar at the bottom of the desktop with a small selection of apps pinned to it. As in previous versions of Windows, you can open or switch to an app by tapping or clicking its icon on the taskbar.

You can pin legacy Windows apps and modern Windows apps to the taskbar, as well as app resources such as File Explorer. To pin an app to the taskbar, open the Start menu or search for the app in Search, right-click or tap and hold the app's tile, and in the app menu, tap or click Pin to Taskbar.

FIGURE 2.10

The taskbar remains an important fixture in the Windows 10 interface.

Wrapping Up

Windows 10 melds the best of the modern Windows interface with the familiar desktop interface. With the return of the Start menu, you can open apps in much the same way as in Windows 7 and earlier. If you've become enamored of the Start screen in Windows 8.x, the Windows 10 Start menu, whether running as a menu or full screen, provides essentially the same capabilities and look-and-feel as the Windows 8.x Start screen.

This melding of old and new is not limited to the Start menu. Windows 10 lets you run apps in either full screen or a window, just as you can with legacy apps. This capability makes it easier for people who haven't yet switched from Windows 7 or earlier to make the transition to the new Windows 10 interface.

CHAPTER 3

Getting around the Windows Desktop

IN THIS CHAPTER

Logging in

Using the Windows desktop

Using the Start menu

Using programs

Using virtual desktops

Shutting down the computer

In today's busy world, few people have the time to sit down and learn to use a computer. Many books and online tutorials don't help much because they assume you already know all the basic concepts and terminology. That's a big assumption because the truth is that most people don't already know those things. Most people don't know a file from a folder from a megabyte from a golf ball. These aren't the kinds of things we learned about in school or from our day-to-day experiences.

This chapter is mostly about the things everyone else assumes you already know. It's for the people who just bought their first computer and discovered it has this thing called Windows 10 on it, or for the people who were getting by with an older computer but now have a new Windows 10 computer and want to know more about how to use it.

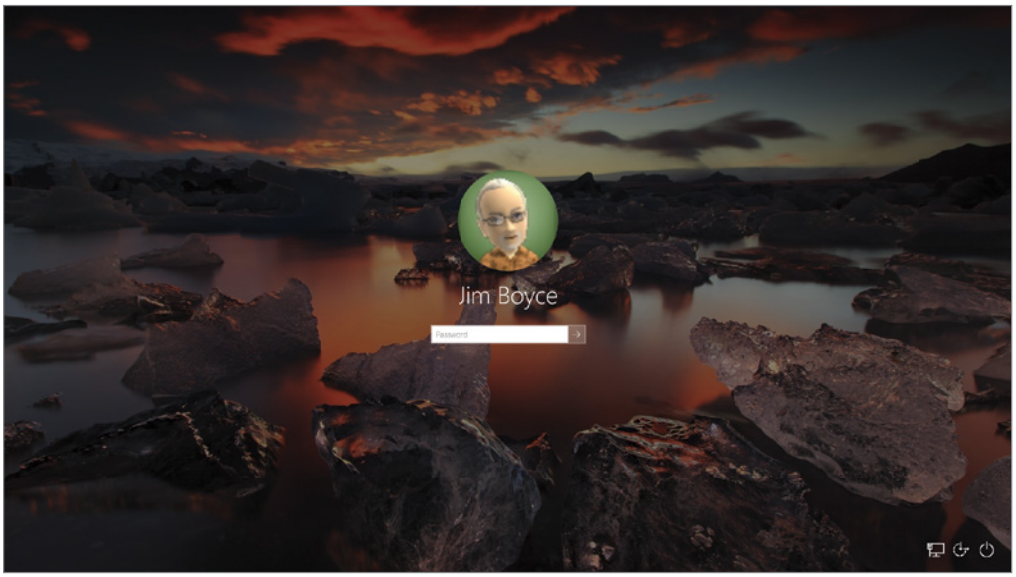
We often refer to the skills in this chapter as "everyday skills" because they're the kinds of things you'll likely do every time you sit down at the computer. In this chapter, we point out the name and purpose of many elements you'll see on your screen. Together, these bits of information provide basic knowledge about how you use a computer to get things done. It all starts with logging in.

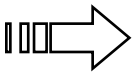
Logging In

The first step to using a computer is to turn it on. Shortly after you first start your computer, the Windows 10 logon screen appears (see Figure 3.1). Windows displays the list of user accounts available on the device. You learn more about user accounts in Chapter 4, but for now, all you need to know is that if you see user account icons shortly after you first start your computer, you have to click one in order to use the computer. Click or tap the account you want to use.

FIGURE 3.1

The Windows logon screen.





You also can use a Windows 10 feature called Picture Passwords to log in to Windows. The Picture Passwords feature is covered in Chapter 4.

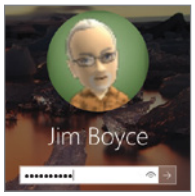
TIP

Buttons located at the bottom right corner of the logon screen provide access to actions other than logging on. The left button enables you to connect to a network before logging on. The middle button provides Ease of Access options for the visually impaired. The button at the right lets you turn off the computer rather than log in.

If the user account isn't password protected, the Windows desktop appears automatically. If the user account you clicked is password protected, a rectangular box appears instead. You have to type the correct password for the account to get to the Windows Start screen. The letters you type don't show in the box by default. Instead, you see a dot for each letter you type, as in Figure 3.2. This prevents others from learning your password by looking over your shoulder as you type it on the screen. To temporarily see the characters you enter, press and hold the eye icon on the right side of the password box. This toggles on the characters so you can see that what you typed is what you intended to type.

FIGURE 3.2

Typing a password.



After you type the password, press Enter or click the arrow to the right of the password box.

Pressing Windows+L on the keyboard locks the computer and displays the Lock screen, which is similar in look and function to the logon screen. The Lock screen displays the name of the currently logged on user, along with a password box. Enter the password to unlock the device.

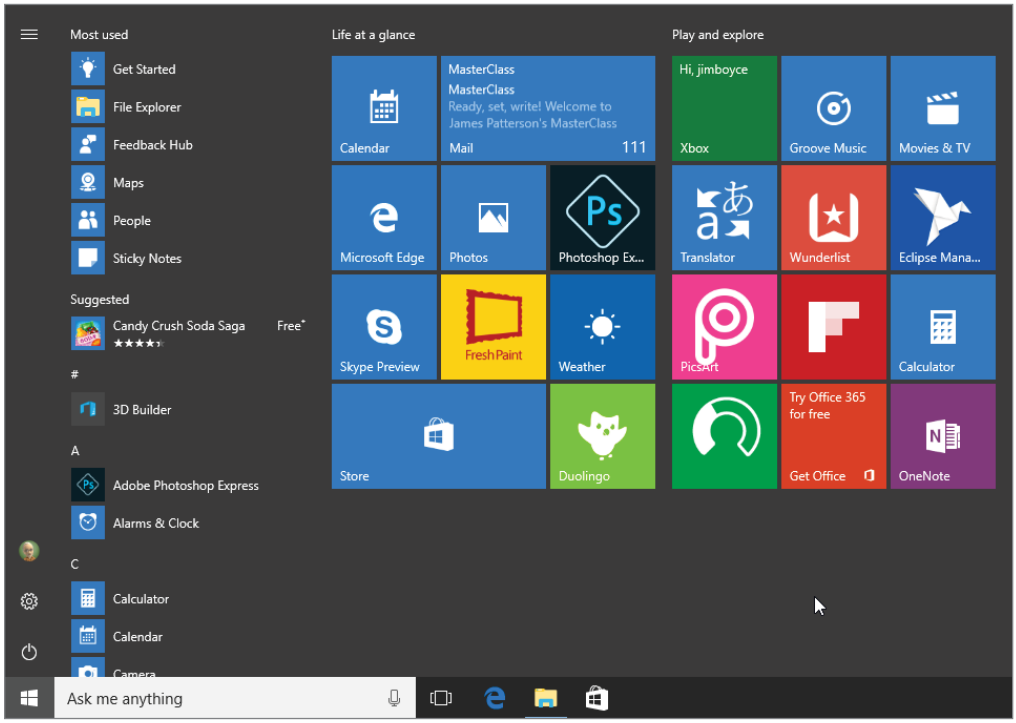
After you've successfully logged in, the Windows desktop appears. Before we dive into the desktop, let's cover the Start menu.

Windows Start Menu

After you log on, you see the Windows 10 desktop. Clicking or tapping the Start menu button in the lower-left corner of the display (at the left of the taskbar) opens the Start menu, shown in Figure 3.3. The Start menu serves much the same function as the Start menu in previous versions of Windows, but it melds the look and feel of the Windows 8 Start screen with the familiar Start menu. Square or rectangular tiles give you quick access to apps, external resources such as OneDrive, folders, and settings.

FIGURE 3.3

The Windows Start menu.



At the left of the Start menu are a small number of buttons, one of which gives you access to your account settings. The button has either a stylized picture of a user, or your account picture. You can click or tap on the button to lock the device, sign out, or change account settings. Other buttons on the left portion of the Start menu give you access to File Explorer, Settings, and power options.

The right portion of the Start menu contains tiles for various apps, gathered into groups. To open an app from the Start menu, just click or tap its tile. The left side of the Start menu provides quick access to the most recent and frequently-used apps, and you can open those apps just by clicking or tapping on them. If you don't see the app you need, click or scroll through the alphabetical list of all of the apps on the device to find the one you want.

TIP

Click a letter heading in the apps list to open a matrix where you can select a specific letter.

Using the Windows Desktop

The *Windows desktop* is the electronic equivalent of a real desktop. It's the place where you keep stuff you're working on right now. Every program that's currently open is usually contained within some program window. When no programs are open, the desktop and all your desktop icons are plainly visible on the screen.

What's on the desktop

Users upgrading from previous Windows versions are familiar with the Windows desktop, the primary place for users to start their work in earlier versions of Windows. You work with programs on the Windows desktop in much the same way you work with paper on an office desktop. With Windows 8.x, the Start screen was intended to replace the desktop as the primary work environment. In Windows 10, however, the Windows desktop is still very much a part of Windows, and it's the environment in which you run legacy Windows applications and modern Windows apps — you no longer need to switch between the Start screen and the desktop to switch between legacy apps and Windows apps.

The desktop may get covered by program windows and other items, but the desktop is still under there no matter how much you clutter the screen. It's the same as a real desk in that sense. Although your real desktop may be completely covered by random junk, your desktop is still under there somewhere.

Below the desktop is the taskbar. The desktop is where everything that you open piles up. The taskbar's main role is to make it easy to switch from one open item to another. Everything you'll ever see on your screen has a name and a purpose. Virtually nothing on the screen is there purely for decoration (except the wallpaper). Figure 3.4 shows the main components of the Windows desktop and other items. Your desktop may not look exactly like the picture and may not show all the components. Don't worry about that. Right now, focus on learning the names of the most frequently used elements.

Here's a quick overview of what each component represents.

Tip

You learn to personalize your desktop in Chapter 9. But here's a quick hint: Virtually everything you'll ever see on your screen, including the desktop, is an object that has properties (characteristics of the object that you can specify, such as color). To customize any object, right-click that object and choose Properties.

- **Desktop:** The desktop itself is everything above the taskbar. Most programs you open appear in a window on the desktop.
- **Desktop icons:** Icons on the desktop provide quick access to frequently used programs, folders, and documents. You can add and remove desktop icons as you see fit.