Windows 10
Primer

What to Expect from Microsoft's New Operating System

ALL YOUR QUESTIONS ANSWERED BY A WINDOWS EXPERT

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Contents at a Glance

Introduction

Windows 10 is the most hotly anticipated version of Microsoft's desktop OS in some time, and the first in just as long that has received almost universal acclaim from users, enthusiasts, bloggers, and the media, so the pressure's on to deliver something that's both super-cool and feature-packed.

Fortunately for Microsoft, they're delivering both qualities in spades, which seems odd to this author, as I've been, several times, to the surprisingly ordinary building in which it is being written, and shared coffee with some of the people who are bringing the magic to life. You might be surprised to hear that the Windows development team is not a vast army of programmers, but rather a smaller and select team of quite exceptional people who rarely get any of the praise they deserve.

There's simply so much that's new and improved stuffed into Windows 10 that it's a wonder these programmers ever get any sleep, or any time with their friends and family. Yet, time off they do indeed get, and despite the selfish needs of friends, family, spouses, and children outside of Microsoft, a fantastic operating system is being written.

It's not finished yet, though. As I write this introduction, pressure is piling on Microsoft to release more frequent beta builds of the OS, and it's clear from leaks and news stories that there's an awful long way to go yet.

Sooner or later, though, this operating system will be finished, and it will be spectacular and packed so full of features that you may never find them all (not unless you buy my *Beginning Windows 10* and *Windows 10 Troubleshooting* books later this year, anyway). In this book, though, I hope to get you started, excited, and enthused about what Windows 10 will be able to do for you, your family, and your business.

CHAPTER 1

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Introducing Windows 10

First unveiled to the world in April 2014 at Microsoft's BUILD conference, Windows 10 is the seventeenth version of Microsoft's desktop operating system, and the ninth version of the business-focused NT kernel. There, we got the naming question out of the way early on.

Windows 10 follows Windows 8.1, which suffered from poor take-up from many consumers because of criticism of its "modern" touch-friendly user interface and what was a perceived focus away from the desktop toward smaller, tablet- and hybrid-style devices.

In the business space, Windows 8 and 8.1 were always likely to be skipped, as large businesses only like to upgrade their desktop operating systems every two Windows versions and, as Windows 8 was being launched, many were only beginning deployments of Windows 7.

It's often been said that Windows releases are rather like *Star Trek* movies, in that only every other one is great. Both Windows XP and Windows 7 launched to enormous rapture and fanfare, gaining plaudits around the world and building armies of loyal fans. The releases between these, however—Vista and Windows 8—despite both being major updates to the OS, were less well received. Vista was seen to be slow and resource-hungry, and Windows 8 was seen to be not very good on the desktop.

With Windows 10, Microsoft has sought to address all of the concerns people have had, not just about Windows 8, but about Windows in general. More than this, however, the company has looked in detail at what people liked most about Windows XP and Windows 7 and worked to ensure that people get an experience with Windows 10 that they'll both feel comfortable with and enjoy. Indeed, in November 2014 I spoke to some senior members of the Windows product team and told them that Windows 10 would be successful simply because, like XP and Windows 7, they'd made it blue.

So let's return to the name, as many people have wondered why Microsoft made the jump from Windows 8.1 to Windows 10. This new operating system is intended to be the last major version of the Windows OS. This doesn't mean it will be going away, but rather, like Apple did with their OS X desktop operating system, it won't again be receiving the kind of major updates we saw in Windows 8.

■ **Note**   The minimum hardware specification Microsoft have detailed for a PC capable of running Windows 10 is a processor running at 1GHz or faster, a minimum 1GB RAM (2GB for the 64-bit version of Windows 10), at least 16GB free storage for the OS, and graphics that support DirectX 9 or later. Not all 1GHz+ processors will be compatible however, you should check your processor specifications to see if it supports the PAE, NX and SSE2 standards (all of which are required by Windows 10).

Windows 10 will also be Microsoft's first truly cross-platform operating system, running on everything from desktops, laptops, and tablets down to phones, the Xbox One, and Internet of Things (IoT) devices, and upwards to their new Surface Hub and Holographic headset, HoloLens (see Figure 1-1).

Figure 1-1. *One Windows for all your devices*

For such a major release, and for the final major release of Windows, the number 9 just didn't sound major enough, and, frankly, it would have been an odd number to finish on. The other alternative, just calling the OS "Windows," might have opened Microsoft to litigation and copyright claims in some markets in the way that happened with their SkyDrive cloud backup service in 2014. SkyDrive was eventually renamed OneDrive, but it would be harder to do this with Windows should litigation arise. And so Windows 10 it had to be.

The final release of Windows 10 will be out later in 2015, but for now we've got a beta Technical Preview release, and a lot of questions. That's what this book is for—to guide you through everything that's new, updated, or removed in Windows 10, answering the questions you have of how it will affect you, how it can aid productivity, how it will be more secure and robust, and so on.

By the time of the second major Technical Preview release in January 2015, there were more than 1.7 million people signed up with the Windows Insiders beta program, and there was a great deal of excitement and goodwill toward Microsoft's new OS.

This is still a beta product, however, designed by a team of extremely talented engineers in a building in Redmond, Washington (see Figure 1-2). This means that as you read this book, things will still be changing, and the final release will differ slightly from the screenshots and information you read here.

Figure 1-2. *Windows is designed and coded at Microsoft's Redmond Campus*

This isn't to say that we don't already know a great deal about what the final release will bring, and it's these details that I'll be sharing with you in this book.

■ **Note**   You can download the Windows 10 Technical Preview at `https://insider.windows.com`. Please remember that this operating system is not finished and will be missing features and will be unstable on some hardware.

Microsoft's Three Areas of Focus

I've mentioned already that Microsoft wanted to achieve several things with Windows 10. In addition to pushing the Windows paradigm forward, they wanted to ensure that anybody moving to the OS from XP or Windows 7 would have a familiar and comfortable experience. To achieve these goals, they set themselves three areas of focus.

Mobility of Experience

Windows 8 set the goal of getting the user interface out of the way. The design brief for that OS was that your PC experience should be all about the content in your apps and not what's called the window furniture. This led to some issues of discoverability for UI features, such as the charms and the app menu bar.

Windows 10 is reversing this, but not completely. Options and menus are much more easily discovered in the new OS—indeed, they're exactly where you might expect to find them—but extra focus has been placed on getting the technology out of the way.

There is a great deal of clever and innovative technology in Windows 10, including features like OneDrive, Cortana, and Continuum, all of which will be detailed in the coming chapters. Microsoft doesn't want users to have to wade through myriad controls and settings just to be able to configure the OS and their apps to operate the way they want.

This is a good area to focus on when you think about it, as the number of tools, utilities, and features in the OS number in the hundreds, and the configuration options in the thousands or perhaps even the hundreds of thousands. Allowing people to focus on the content of their documents or web pages is an excellent place to begin.

In addition, Microsoft wants people's experience of Windows 10 to be the same across whichever device they use. This could be a desktop PC, a tablet, phone, or the Xbox. Each of these devices will synchronize with each other in new and clever ways, and Microsoft doesn't want people to have to learn how to use multiple interfaces and controls.

Trust

One of the biggest issues people have with technology in the twenty-first century is trust. How do we know that our devices are secure and that our files and data are safe? How do we know that the OS and our apps aren't collecting valuable marketing or personal data about us, and then broadcasting that to companies or even making it available to governments and security agencies?

Microsoft is emphasizing with Windows 10 that the user is firmly in control of their own privacy, and this begins at the installation stage, where you're asked what you want to share with Microsoft (see Figure 1-3) by bringing to the fore the privacy settings that people may otherwise fail to find after Windows is installed.

Figure 1-3. *Privacy choices begin when you install Windows 10*

The Cortana personal assistant can collect details about you, including your likes, location, friends, and more, in order to assist you day to day. All of this can be disabled if you don't wish the data to be stored, however. This focus on putting the user clearly and transparently in control of their data can be seen throughout the Windows 10 Technical Preview, and it will be welcomed by many around the world.

Additionally, new security features will help protect your files, data, and personal information from theft by unscrupulous individuals wishing to exploit you, and end-to-end encryption over company networks and the Internet can minimize the available surface for malware and hacking attacks.

Natural Interaction

Because Windows 10 will be the last major version of the OS, it needs to be forward-looking. We've used keyboards and mice to interact with our PCs since the advent of the computer, and they're still the most common way to interact today.

Windows has supported handwriting recognition for many years, however, and anybody who regularly uses OneNote on a Microsoft Surface Pro 3 will likely attest to how accurate and helpful it can be.

Speech recognition is also improving significantly, and anybody who's used Cortana on their Windows Phone will know how useful it can be to be able to dictate emails, text messages, reminders, and more. Then there's gesture control, both for tablet and hybrid devices, and also used in a way by Microsoft's Kinect gaming sensor.

However you want to interact with Windows 10, and whatever device it is done on, be this a desktop PC, tablet, or HoloLens headset, the OS includes controls that are natural and intuitive to use, and that have been refined by Microsoft over many years.

Lastly, there's vision. It's very common for PCs, especially laptops and tablets, to come with forward-facing cameras, and so it seems right that Microsoft also allows you to control your PC with a smile and a wave.

Above and beyond all else, these many input and control methods make Windows more accessible for a broader range of people. It's not just those with physical disabilities who can have trouble interacting with a PC. Those with even minor motor or vision problems, such as nearsightedness, and the very young can experience difficulty. Expanding the range of interaction methods helps future-proof the OS as we all get older and hungrier for technology and a connection to the Internet.

The Big Questions

Naturally, people are asking a lot of questions about Windows 10, which also means there are a lot of inaccurate answers being provided, even on some of the most popular technology blogs. Let's deal with these questions one by one and weed out the facts from the fiction. What follows are the most common questions being asked by both individual consumers and businesses about Windows 10.

Pricing and Availability

There's no formal release date for Windows 10 other than "the second half of 2015," and no pricing has been announced either. What has been said is that for PC users running up-to-date copies of Windows 7 and Windows 8.1, the upgrade to Windows 10 will be *free* for the first twelve months of the life of the new OS.

There has been some confusion about this, with a few bloggers speculating that after this introductory period users will have to pay a charge or even a regular subscription to use their own PCs. So let's get the first piece of misinformation out of the way. Free means free! If you upgrade your copy of Windows 7 or Windows 8.1 during the first twelve months after Windows 10 is released, you will *never* again have to pay a fee to use Windows 10 on that PC. This includes all major updates to Windows 10, all of which will also be free.

If you purchase a new PC, you will also be purchasing a new copy of Windows 10 with it, and should you upgrade a PC from Windows XP or Windows Vista, you will need to purchase a download or retail copy of the OS.

Again, we don't know what pricing will be. At their January 2015 event, Microsoft stated that they just haven't decided on pricing yet. When Windows 8 launched, however, there were discounted offers available for those purchasing a copy of the OS early, and it is Microsoft's intention to have as many PC users as possible switch to Windows 10 as quickly as possible.