Windows 10

Welcome to Windows 10 development

Windows 10 is used on millions of desktop, laptop, and tablet computers worldwide. All these devices run apps that developers created with the same tools and frameworks. In this module, you'll learn about the various options for creating Windows 10 apps, their relative strengths, and the tools required to use them. By the time you finish, you'll be ready to

How to Use Windows 10

Windows 10 is the most powerful operating system that Microsoft has ever made, but it's also the most complex. While the user interface is extremely intuitive, you'll have to dig a little deeper to customize your experience, get maximum performance and make the most of features such as the Cortana voice assistant, Edge browser and multiple desktops. If you're still using Windows 7 and dread its impending death, then we've put together this helpful guide to ease your transition into Windows 10.

Windows 10 apps

Windows 10 can run all kinds of apps, including games, enterprise applications, utilities, mixed reality experiences, and word processors. You name it, Windows can run it. With so many possibilities, it can be a little overwhelming to know how to even start.

That's where this module comes in. It will help set the scene and get you comfortable with the tools and platforms at your disposal. You won't be an expert at the end, but you'll at least have an idea about your next steps.

Windows development tools and platforms

Most developers who write software for Windows use Visual Studio, the development environment that supports code editing, designing, building and debugging. Visual Studio is your toolbox, and where you'll spend your time honing your apps. But you can't create anything with Visual Studio alone, so you'll need to make use of software development kits (SDKs) and platforms such as .NET to make a working app.

As needs and technologies change over the years, a variety of platforms and frameworks have been created to help developers write apps. Different types of application use different tools, and different developers prefer some tools over others. There is no "one size fits all" rule. In this module, we explain your choices and then walk you through building an app by using some popular options.

Advice on selecting a platform

Which development platform should you use? Well, that's really up to you. You may already have written an app by using Windows Presentation Foundation (WPF), in which case you'll probably want to continue using it. You can now add to WPF new features that are available from the Universal Windows Platform (UWP). If you're starting a new project from scratch, using UWP is an attractive option. With UWP you get immediate access to the latest Fluent Design System components for making modern user interfaces.

This module discusses UWP, WPF, and Windows Forms examples, but other platforms, such as Progressive Web Apps (PWAs), are available as well.

Windows Template Studio

Windows Template Studio is a Visual Studio extension that accelerates the creation of new UWP apps by using a wizard-based experience. The resulting UWP project is well-formed, readable code that incorporates the latest Windows 10 features while implementing proven patterns and best practices. WTS is an open source project on GitHub.

Windows Community Toolkit

The Windows Community Toolkit is a collection of helper functions, custom controls, and app services. It simplifies and demonstrates common developer tasks that build UWP apps for Windows 10 and ships through NuGet for easy consumption by developers.

Windows developer settings

Before you can write Windows 10 apps on your computer, there's one more thing to do: enable Developer Mode on any Windows computer you're using to write apps, and on any devices you'll use to test your code. If you've already enabled Developer Mode for a previous project, you can skip this step.

To enable Developer Mode, you need administrator access. If your device is owned by an organization, this option might be disabled. If you can't activate Developer Mode on your computer, you need to use a virtual machine to develop Windows apps.

Before Developer Mode is enabled, opening a project in Visual Studio opens the For developers page in Settings or opens the Enable Developer Mode for Windows 10 window in Visual Studio:

Enable Developer Mode

To enable Developer Mode or related settings: In the For developers settings pane, choose the level of access that you need. Read the disclaimer for the setting you've chosen, and then select Yes to accept the change.

Developer Mode features

When you enable Developer Mode on a desktop computer that's running Windows 10, a package of features is installed. The features include a secure shell (SSH) service that allows remote deployment of apps to your computer, and the Windows Device Portal (WDP). The features are relevant if you enable device discovery on your computer, or if you develop apps for Internet of Things (IoT) applications. If you're developing only Windows apps, you can safely ignore them. For more information, see enable your device for deployment.

Failure to install

Network or administrative issues might prevent the Developer Mode package from being installed properly, which prevents the use of remote deployment and the WDP. Even in this case, you can test and deploy your app locally by using Visual Studio.

Create a developer account

If you want to submit apps or add-ins to the Microsoft Store, you need a developer account. A developer account has a one-time registration fee with no required renewal, and the account is linked to an existing Microsoft account. A developer account is necessary only if you want to distribute your apps in official Microsoft platforms. You can develop Windows apps without one.

To register for a developer account, go to the registration page and select Sign up. You're prompted to log in to your Microsoft account (or to create a new one), which you use to sign in to your developer account. Follow the steps to choose your country, account type, public publisher display name, and contact information. For a step-by-step walkthrough of the developer account process and in-depth nformation about the specific account settings, see Open a developer account.

Summary

Congratulations, you've taken the first step toward writing some apps for Windows 10. In this module, you learned about the various choices that are available to Windows developers. You learned a little about the tools required and how to use them. You also installed Visual Studio.

Now that you're set up for Windows development, we encourage you to keep learning. Check out our module to learn more about Visual Studio, or get started with writing basic apps on the different Windows development platforms. But first, check your knowledge with this quiz: