

Specifications

Here's an overview of requirements, editions, and languages available for Windows 10.

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System requirements

If you want to upgrade to Windows 10 on your PC or tablet, here's the minimum hardware you'll need. Read further below to learn about the additional factors that impact upgradeability. For more information about the free upgrade offer¹, please visit the [Windows 10 Upgrade page](#) for details.

- **Latest OS:**

Make sure you are running the latest version of either Windows 7 SP1 or Windows 8.1 Update.

Don't know which version you are running? [Check here](#) to find out. Need to download the latest version? Click here for [Windows 7 SP1](#) or [Windows 8.1 Update](#).

- **Processor:**

1 gigahertz (GHz) or faster processor or SoC

- **RAM:**

1 gigabyte (GB) for 32-bit or 2 GB for 64-bit

- **Hard disk space:**

16 GB for 32-bit OS 20 GB for 64-bit OS

- **Graphics card:**

DirectX 9 or later with WDDM 1.0 driver

- **Display:**

800x600

Important notes:

- Windows 10 Home users will receive updates from Windows Update automatically when it's available. Windows 10 Pro and Windows 10 Enterprise users will have the ability to postpone updates. The amount of time that Windows 10 Pro users can postpone updates is limited.
- Small storage devices, like devices with 32GB hard drives or older devices with full hard drives, may need additional storage to complete the upgrade. You'll see instructions during the upgrade telling you what to do. You may need to either remove unneeded files from your device, or insert a USB flash drive to complete the upgrade.
- Some devices with either little free space available or smaller hard drives, like 32 GB storage PCs, may have little free space available after upgrading. You may free up disk space and easily delete files like temporary files or your previous version of Windows within the Storage system setting. Files for the previous version of Windows give you the option to remove Windows 10 and go back to your previous version of Windows. These files are automatically deleted a month after you upgrade. To free up space, you can delete them now.

- An internet connection is required to perform the upgrade. Windows 10 is a large file -- about 3 GB -- and Internet access (ISP) fees might apply.
- To check for device compatibility and other important installation information, visit your device manufacturer's website. Manufacturer contact information can be found on the [Contact Information page](#).
- The upgradeability of a device includes factors beyond the system specification. This includes driver and firmware support, application compatibility, and feature support, regardless of whether or not the device meets the minimum system specification for Windows 10.
- Support may vary by device. Find more information on the [Windows Lifecycle page](#).
- If your PC or tablet is currently running Windows 7 SP1 or Windows 8.1 Update, you can check to see if it meets the requirements by using 'Check my PC' in the *Get Windows 10* app. To open the *Get Windows 10* app, click on the small Windows icon found at the right end of the taskbar. If you don't see it, visit our [Windows 10 Q&A page](#) for more info.
- Many applications, files, and settings will migrate as part of the upgrade. However, some applications or settings may not migrate.
 - For anti-malware applications, Windows will check to see if your anti-malware subscription is current (not expired) and compatible during the upgrade.
 - If the anti-malware application is compatible and current, your application will be preserved during the upgrade to Windows 10.
 - If the anti-malware application is incompatible, Windows will uninstall your application while preserving your settings. After upgrade is complete, if your anti-malware provider has informed Microsoft that it has made a compatible version available for your active subscription, Windows will notify you to install the latest version available with the settings that were set prior to upgrade.
 - If your anti-malware subscription is not current (expired), Windows will uninstall your application and enable Windows Defender.
 - Some applications that came from your OEM may be removed prior to upgrade.
 - For certain third party applications, the "*Get Windows 10*" app will scan for application compatibility. If there is a known issue that will prevent the upgrade, you will be notified of the list of applications with known issues. You can choose to accept and the applications will be removed from the system prior to upgrade. Please be sure to copy the list before you accept the removal of the application.
- Microsoft Family Safety child users with local accounts (accounts tied to the machine) will not have their safety settings migrated to Windows 10 during the upgrade. This means that after the upgrade to Windows 10 is complete, parents would need to setup safety settings for the child user along with a Microsoft account if they do not have one. To find out more about the changes, visit the [FAQ page](#).

Feature deprecation

- If you have Windows 7 Home Premium, Windows 7 Professional, Windows 7 Ultimate, Windows 8 Pro with Media Center, or Windows 8.1 Pro with Media Center and you install Windows 10, Windows Media Center will be removed. For a limited time (the "eligible period"), on systems upgraded to Windows 10 from one of these older versions of Windows (a "qualified system"), a DVD playback app ("Windows DVD Player") will be installed. Note: the Windows DVD Player may not be installed immediately; it will be installed after the first successful Windows Update. The Windows DVD Player will be available for purchase from the Window

Store for systems that (i) are qualified systems but the eligible period lapsed; (ii) are non-qualified systems; or (iii) were qualified systems but Windows 10 was subsequently clean installed (in this case, Windows Update cannot detect that it was previously a qualified system).

- MDM functionality will not be available in Windows 10 Home edition when Windows 10 is released.
- Windows 7 desktop gadgets will be removed as part of installing Windows 10.
- Solitaire, Minesweeper, and Hearts Games that come pre-installed on Windows 7 will be removed as part of installing the Windows 10 upgrade. Microsoft has released our version of Solitaire and Minesweeper called the “Microsoft Solitaire Collection” and “Microsoft Minesweeper.”
- If you have a floppy drive, you will need to download the latest driver from Windows Update or from the manufacturer’s website.
- If you have Windows Live Essentials installed on your system, the OneDrive application is removed and replaced with the inbox version of OneDrive.
- OneDrive does not support placeholder files in Windows 10. Windows 8.1 displayed placeholders for files available in OneDrive but not locally on the device. In Windows 10, users can choose which folders to sync from OneDrive settings.
- Snap is limited to 2 apps in Tablet Mode.

Additional requirements to use certain features

- Cortana is only currently available on Windows 10 for the United States, United Kingdom, China, France, Italy, Germany, and Spain.
- Speech recognition will vary by device microphone. For a better speech experience, you will need a:
 - High fidelity microphone array
 - Hardware driver with microphone array geometry exposed
- Windows Hello requires specialized illuminated infrared camera for facial recognition or iris detection, or a finger print reader which supports the Windows Biometric Framework. Windows Hello with an Intel® RealSense™ (F200) camera requires a software update to work on Windows 8.1 devices after upgrading to Windows 10. This update is expected to be available soon.
- Continuum is available on all Windows 10 desktop editions by manually turning “tablet mode” on and off through the Action Center. Tablets and 2-in-1s with GPIO indicators or those that have a laptop and slate indicator will be able to be configured to enter “tablet mode” automatically.
- Continuum for phones limited to select premium phones at launch. External monitor must support HDMI input. Continuum-compatible accessories sold separately. App availability and experience varies by device and market. Office 365 subscription required for some features.
- Music and video streaming through the Music or Movies & TV apps is not available in all regions. For the most up-to-date list of regions, please go to [Xbox on Windows website](#).
- Xbox app requires an Xbox Live account, which is not available in all regions. For the most up-to-date list of regions, please go to [Xbox Live Countries and Regions website](#)
- Two factor authentication requires the use of a PIN, Biometric (finger print reader or illuminated infrared camera), or a phone with Wi-Fi or Bluetooth capabilities.

- The number of applications that can be snapped will depend upon the minimum resolution for the application.
- To use touch, you need a tablet or a monitor that supports multi-touch. [Click here](#) for more info on multitouch hardware requirements.
- Microsoft account required for some features.
- Secure boot requires firmware that supports UEFI v2.3.1 Errata B and has the Microsoft Windows Certification Authority in the UEFI signature database.
- Some IT administrators may enable Secure Logon (Ctrl + Alt + Del) before bringing you to the log in screen. On tablets without a keyboard, a tablet with the Windows button may be required, as the key combination on a tablet is Windows button + Power button.
- Some games and programs might require a graphics card compatible with DirectX 10 or higher for optimal performance.
- BitLocker To Go requires a USB flash drive (Windows 10 Pro only).
- BitLocker requires either Trusted Platform Module (TPM) 1.2, TPM 2.0 or a USB flash drive (Windows 10 Pro and Windows 10 Enterprise only).
- Client Hyper-V requires a 64-bit system with second level address translation (SLAT) capabilities and additional 2 GB of RAM (Windows 10 Pro and Windows 10 Enterprise only).
- Miracast requires a display adapter which supports Windows Display Driver Model (WDDM) 1.3, and a Wi-Fi adapter that supports Wi-Fi Direct.
- Wi-Fi Direct Printing requires a Wi-Fi adapter that supports Wi-Fi Direct and a device that supports Wi-Fi Direct Printing.
- To install a 64-bit OS on a 64-bit PC, your processor needs to support CMPXCHG16b, PrefetchW, and LAHF/SAHF.
- InstantGo works only with computers designed for Connected Standby.
- Device encryption requires a PC with InstantGo and TPM 2.0.