

# **Guide for People who have Low Mobility or Dexterity**

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This guide describes accessibility features built into Windows and Microsoft Office, as well as different types of [assistive technology products](#) that are designed for individuals who have low mobility or dexterity. Note that some sections of this guide may be useful to individuals with different types of disabilities like learning or vision.

Microsoft wants to provide the best possible experience for all our customers. If you have a disability or have questions related to accessibility, please contact the [Microsoft Disability Answer Desk](#) for technical assistance. The Disability Answer Desk support team is trained in using many popular assistive technologies and can offer assistance in English, Spanish, French, and American Sign Language. Please go to the Microsoft Disability Answer Desk site to find out the contact details for your region. If you are a government, commercial, or enterprise user, please contact the [Enterprise Disability Answer Desk](#).

At Microsoft, our mission is to empower every person and organization on the planet to achieve more. We are committed to delivering great experiences to people with disabilities. If you have feedback to offer, or requests to make of us, we encourage you to let us know through the [Microsoft Accessibility Forum](#).

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## **1. In this Guide:**

[Setup Accessibility Options in Windows](#)

[Make Accessible Documents with Office](#)

[Use Accessibility Features in Office](#)

[Browse the Accessibility Features of Internet Explorer and Edge](#)


[Assistive Technology for People with Low Mobility or Dexterity](#)

## 2. Setup Accessibility Options in Windows

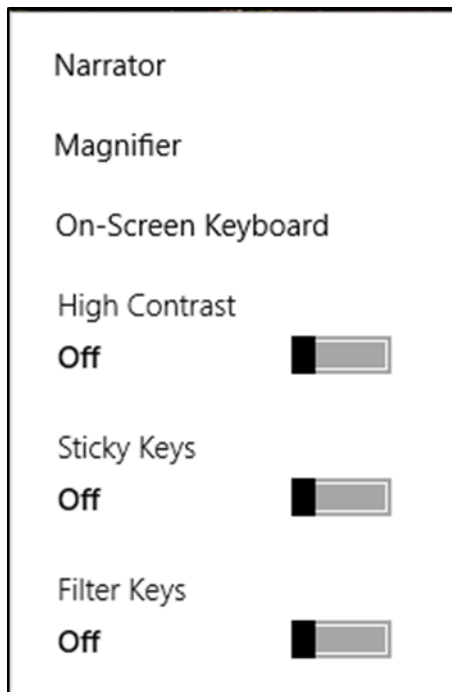
**Ease of Access** is a location where you can set up accessibility settings and programs available in Windows.

[Learn more about Ease of Access](#)

### A. Turn on Ease of Access options

With Windows you can access commonly used accessibility options right from the sign-in screen. Press the **Windows Logo Key**  + **U** to access the **Ease of Access** settings at the sign-in screen. On many keyboards, the Windows Logo Key is located on the bottom row of keys, to the left or right of the **Alt** key. There you can turn on or off **Narrator**, **Magnifier**, **On-Screen Keyboard**, **High Contrast**, **Sticky Keys**, or **Filter Keys**.

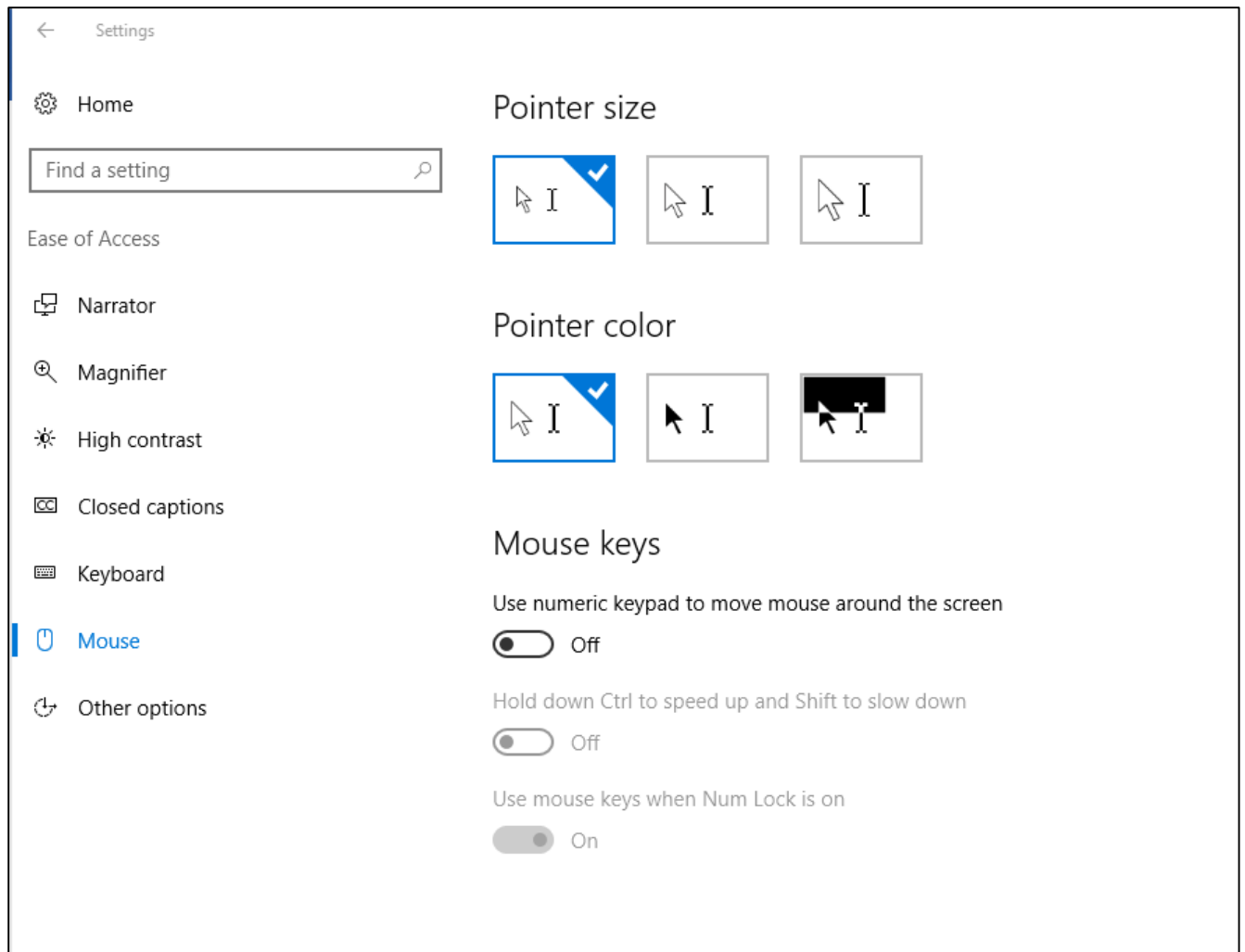
*Caption 1: Ease of Access options on the Windows sign-in screen*



After you log on, you can also open **Ease of Access** by pressing the **Windows Logo Key**  + **U**.

To open Ease of Access settings on a touch-enabled device, swipe in from the right edge of the screen and select **All Settings** > **Ease of Access**.

*Caption 2: Ease of Access settings with Mouse section selected.*

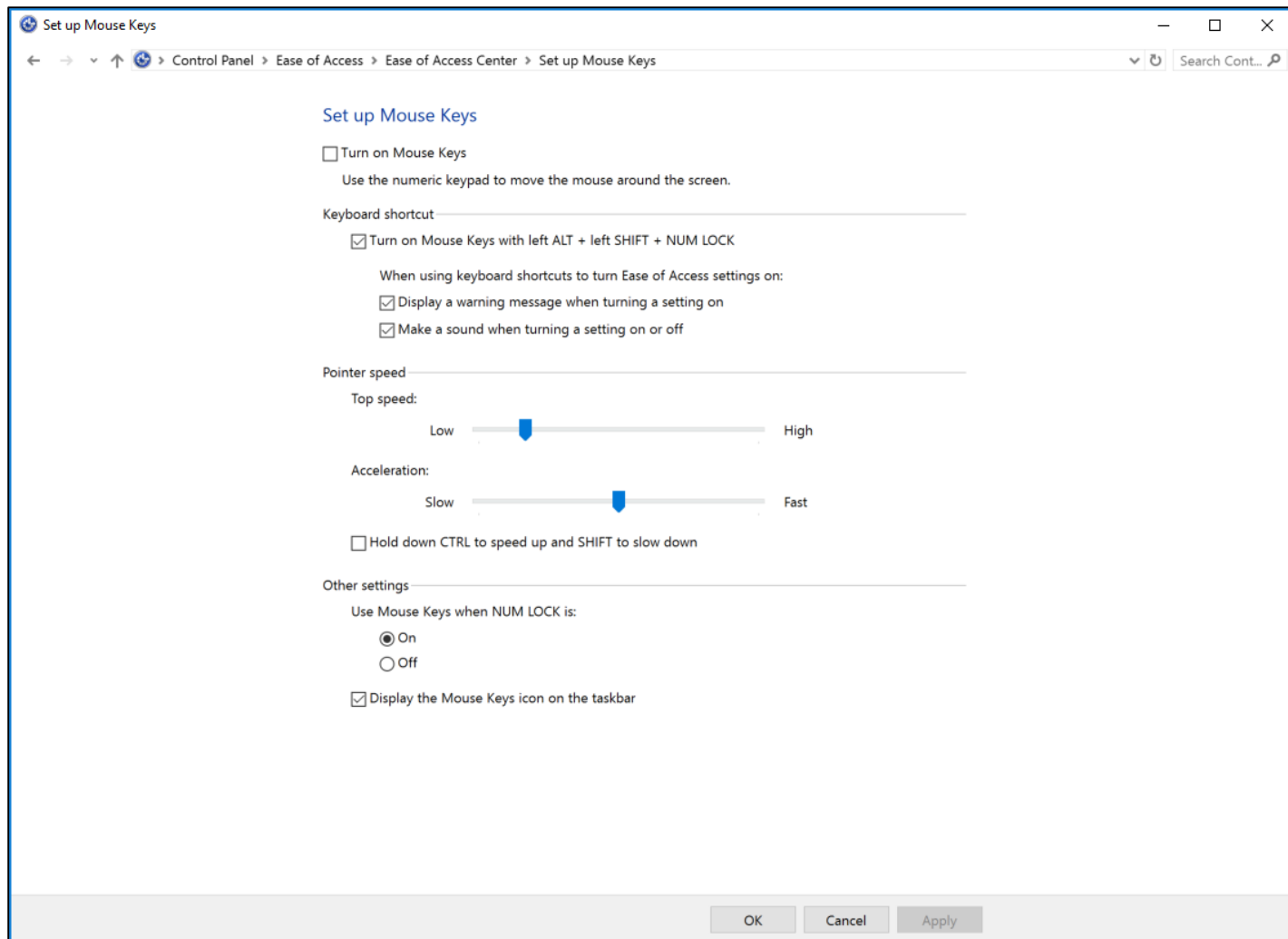


### B. Turn on Mouse options in Ease of Access

There are several customizable mouse options in Windows.


To get to **Ease of Access** press the **Windows Logo Key** **+** **U**, then select the **Mouse** option. Here you can customize your mouse pointer size and color, or turn on **Mouse keys**.

*Caption 3: A list of Mouse Key customizable options*



## I. Customize Mouse Keys in Ease of Access Center

To customize **Mouse Keys** in the **Ease of Access Center**:

1. Press **the Windows Logo Key** 
2. Type **Ease of Access Center** and select it from the results.
3. Go to **Ease of Access Center > Make the mouse easier to use** to see more detailed mouse properties.
4. Select **Set up Mouse Keys**.

You can choose to use the Mouse Keys when the **Num Lock** is on, as well as hold down **CTRL** to speed up the pointer and **SHIFT** to slow down the pointer.

## II. Customize Mouse Properties in the Ease of Access Center

To open **Mouse Properties** in the **Ease of Access Center**:

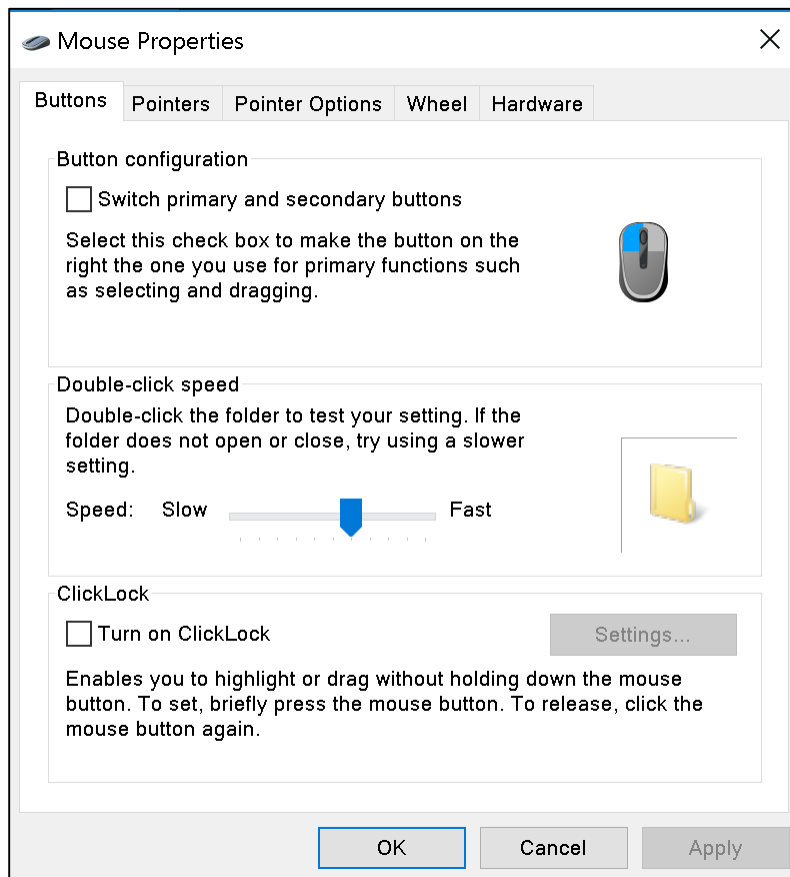
1. Press the **Windows Logo Key** 
2. Type **Ease of Access Center** as well as selecting it from the results.

3. Go to **Ease of Access Center > Make the mouse easier to use > Mouse Settings**

In the **Buttons** tab of **Mouse Properties**, you can switch the primary and secondary buttons on the mouse, and turn on **ClickLock**. **ClickLock** is a function that allows you to drag items without holding down the mouse button.

In the **Wheel** tab, you can customize the number of lines that get scrolled down at a time.

*Captions 4: The **Buttons** tab of **Mouse Properties***

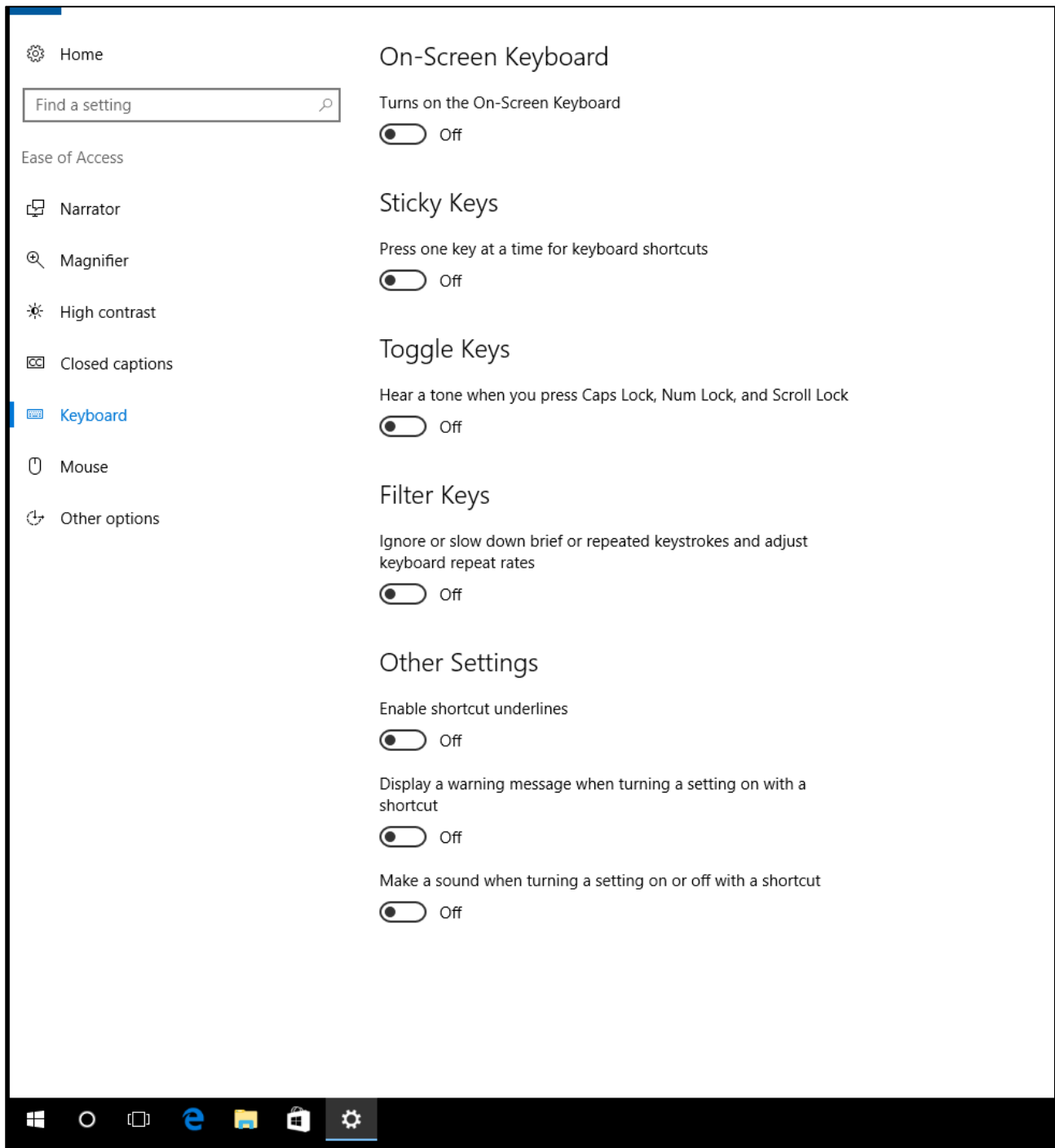


**C. Turn on Keyboard options in Ease of Access**

Additionally, there are some keyboard options that are customizable in Windows.

Press **Windows Logo Key** **⊞** + **U** to get to **Ease of Access**. Then select the **Keyboard** section. Here you can turn on the **On-Screen Keyboard, Sticky Keys, Filter Keys, Toggle Keys**, and any other settings you would like.

*Caption 5: List of Keyboard options in Ease of Access*




Here is a list of keyboard shortcuts that can turn accessibility options on or off:

Press this key	To do this
<b>Right Shift</b> for eight seconds	Turn Filter Keys on and off
<b>Left Alt + Left Shift + Print Screen</b>	Turn High Contrast on or off
<b>Left Alt + Left Shift + Num Lock</b>	Turn Mouse Keys on or off
<b>Shift</b> five times	Turn Sticky Keys on or off

Press this key	To do this
<b>Num Lock</b> for five seconds	Turn Toggle Keys on or off
<b>Windows Logo Key + U</b>	Open the Ease of Access Center

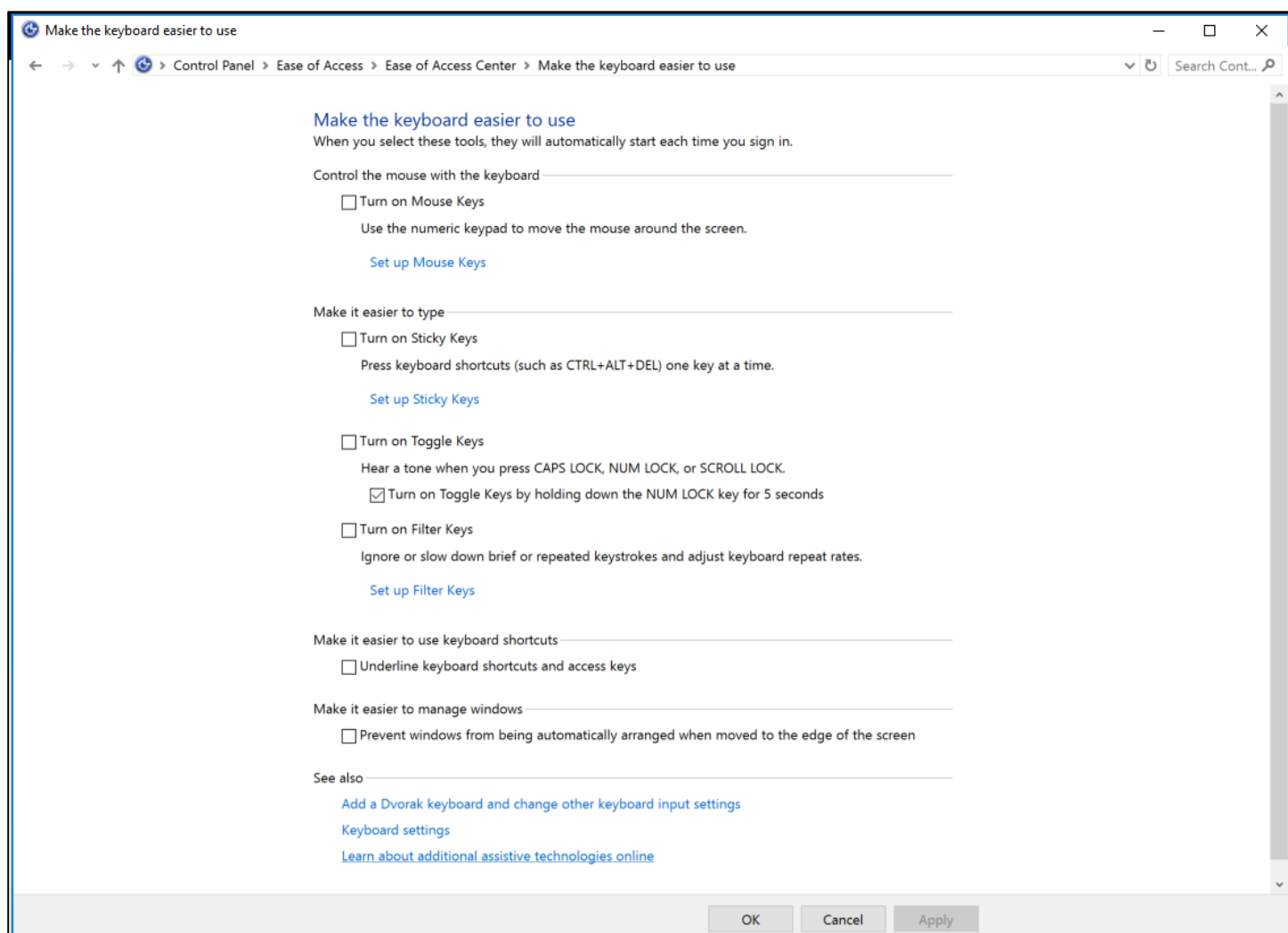
For additional keyboard options:

1. Press **Windows Logo Key** 
2. Type **Ease of Access Center** as well as selecting it from the results.
3. Go to **Ease of Access Center > Make the keyboard easier to use**

This shows you more detailed keyboard properties. You can also set up Mouse, Sticky, and Filter keys, as well as customize additional keyboard settings.

[Learn more about Windows keyboard shortcuts for accessibility](#)

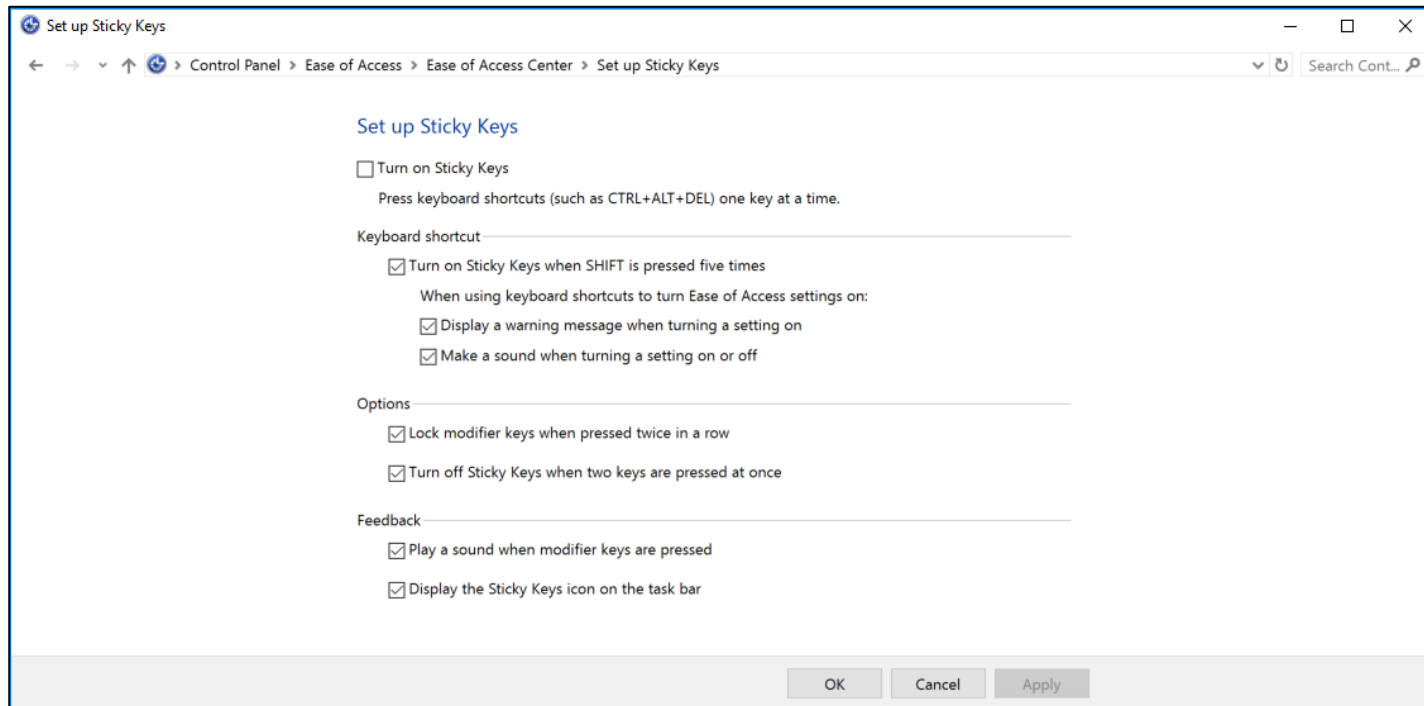
*Caption 6: Keyboard options you can customize in Windows*



## I. Customize Sticky Keys in the Ease of Access Center

Select the **Set up Sticky Keys** option in the **Make the keyboard easier to use** section. This option allows a sound to be played when different modifier keys are pressed. Additionally, you can turn on **Sticky Keys** by pressing **Shift** five times.

*Caption 7: A list of options that can be modified with Sticky Keys*



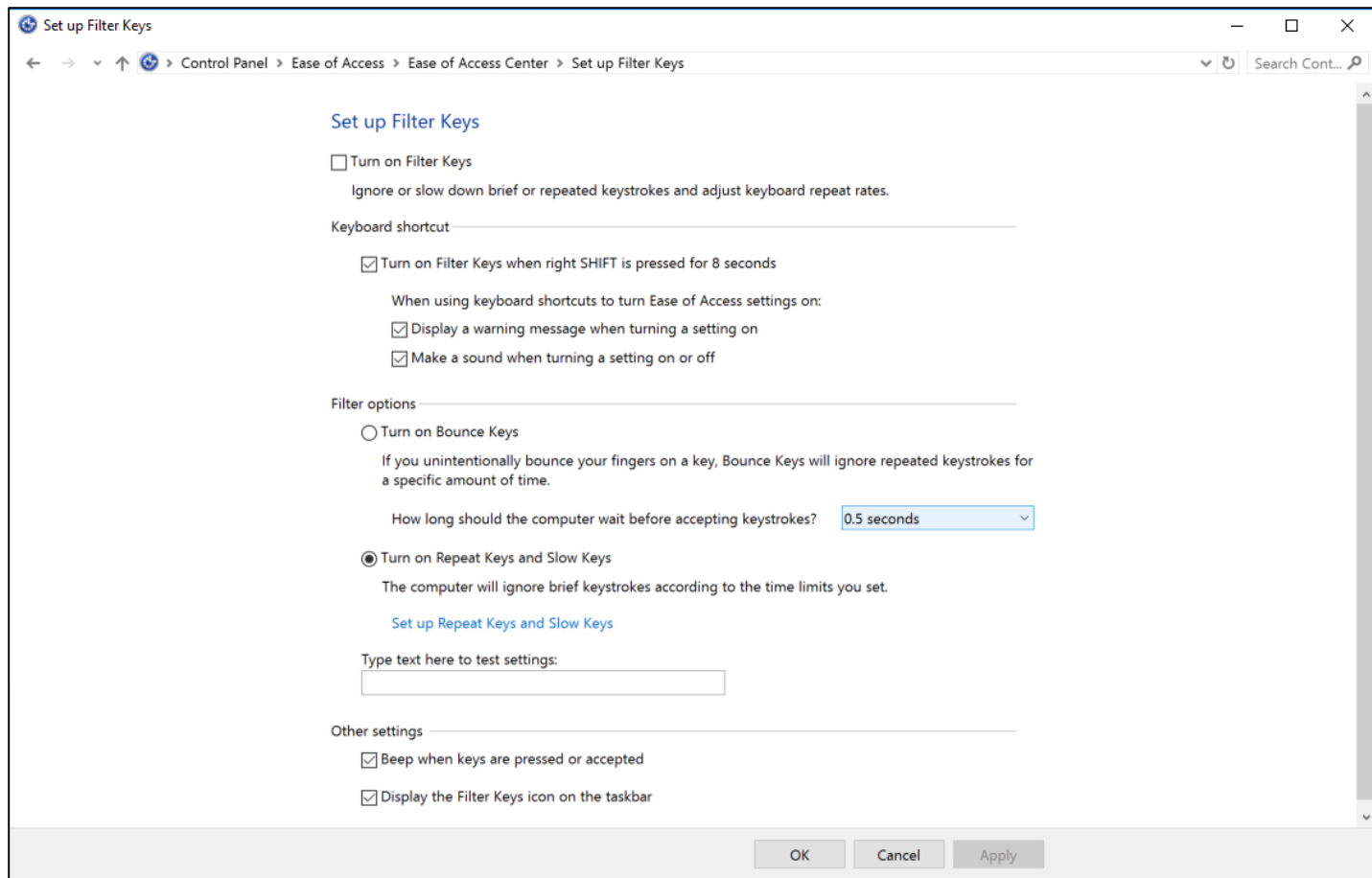
## II. Customize Filter Keys in the Ease of Access Center

Select the **Set up Filter Keys** option in the **Make the keyboard easier to use** section. There you can turn on Bounce Keys, where if your fingers unintentionally bounce on a key it will ignore that keystroke for a preset period.

In this section you can also **Set up Repeat Keys** and **Slow Keys**. This way you can avoid accidental keystrokes and repeated keystrokes when you hold down a key.

*Caption 8: A list of options that can be modified with Filter Keys*





#### D. *Use the On-Screen Keyboard to type*

The On-Screen Keyboard is a visual keyboard that can be used by your mouse or another pointing device to select a single key or a group of keys. To open the keyboard, press the **Windows Logo Key** + **U** to open **Ease of Access**. Then Select **Keyboard** and turn on the **On-Screen Keyboard**. The keyboard will remain on the screen until it's closed or minimized.

##### I. Scan through keys

The On-Screen Keyboard allows you to automatically scan through different groups of keys and select them with a single interaction. You can also customize which key starts the scanning process or use alternative input devices.

1. Select the **Options** key.
2. Select **Scan through keys**.
3. Press the **Space Bar** to select the row. Then press the **Space Bar** again to choose the letter or symbol.

*Caption 9: The On-Screen Keyboard in Windows*

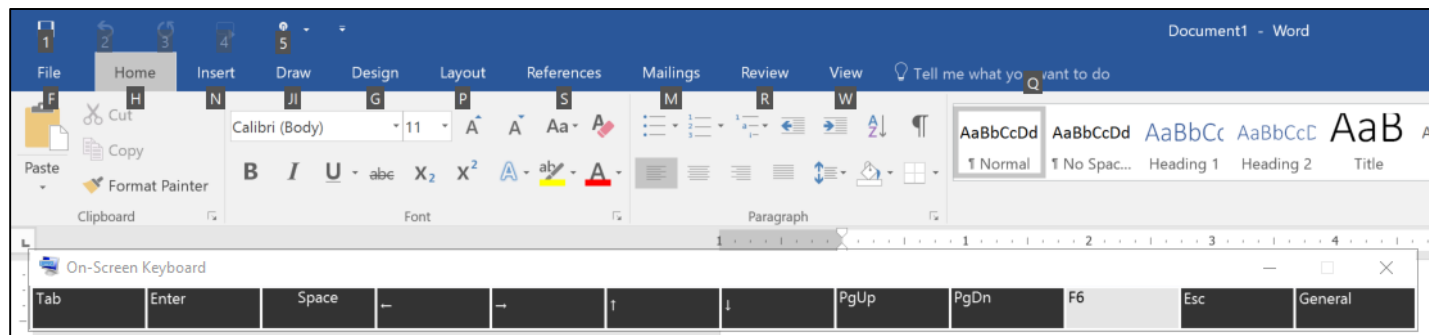


## II. Navigation Mode in the On-Screen Keyboard

Select the **Nav** key to get additional options for keyboard navigation. Here are a few ways you can use this mode:

- Select **PgUp** or **PgDown** to navigate through web pages.
- Select **Tab** to focus on interactive objects.
- Select **F6** to move the focus between feature areas including the Office Ribbon.

*Caption 10: Navigation Mode in Word 2016 moving focus between feature areas*







Select the **General** key to return to the On-Screen Keyboard.

[Learn more about the On-Screen Keyboard](#)

## E. Use the Touch keyboard

Instead of a physical mouse or keyboard, one option is to use the Touch keyboard to type on a touchscreen. To use the Touch keyboard:

1. In the notification area select **Touch keyboard** .
2. You can also choose either the **Split Keyboard**  or the **Handwriting**  option.
3. To switch between keyboard options, select **Keyboard**  in the lower-right corner of the touch keyboard.

The **Split Keyboard** makes it easier to type with your thumbs, while the **Handwriting** option lets you write with a surface pen or your finger.

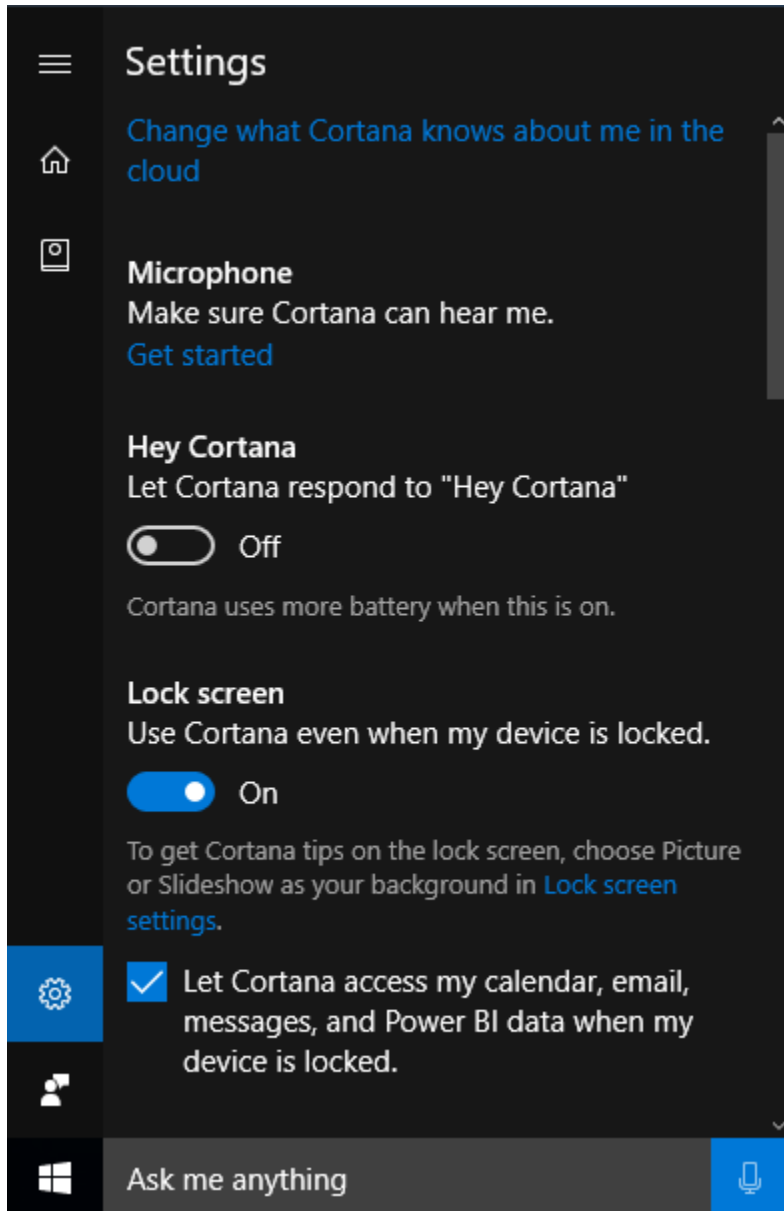
[Learn more about touch keyboard](#)

### *F. Using Cortana*

In Windows, Cortana is a great new feature that can respond to your individual needs. Additionally, you can go into her settings and use features such as sending notifications across devices. This is how to access **Settings**:


1. Select **Ask me anything** in the taskbar.
2. Select **Settings**.

*Caption 11: Cortana's Settings in Windows*

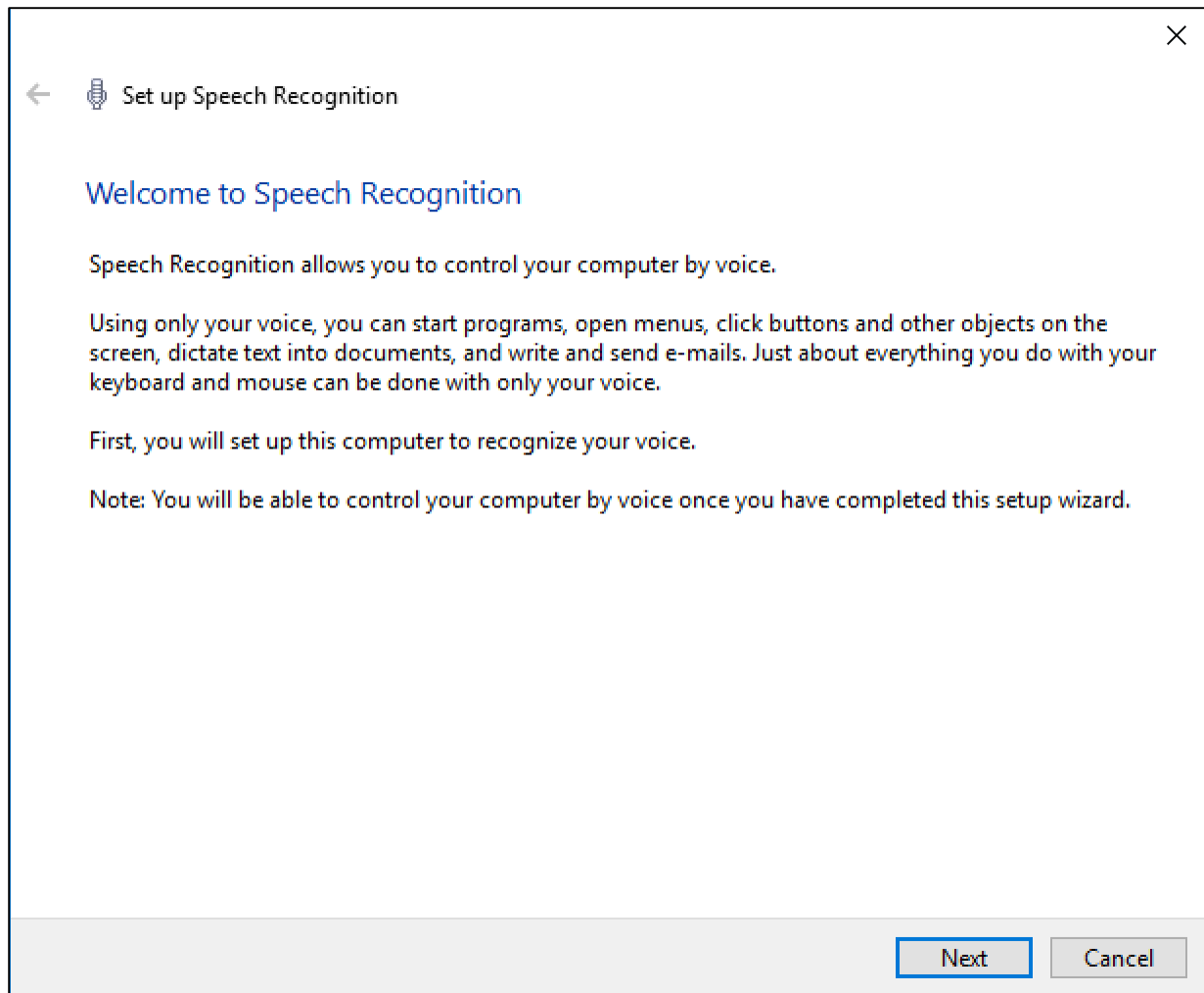



[Learn more about Making Cortana Yours](#)

### G. *Use Speech Recognition*

Windows Speech Recognition allows you to control your computer with your voice. First press the **Windows Logo Key**  and then type **Windows Speech Recognition** and select it from the results. Complete the **Set up Speech Recognition** tutorial below.

*Caption 12: You can train your computer to recognize your voice once the setup tutorial is complete*



Additionally, you can press the **Windows Logo Key** , and type **Control Panel** then select it from the list of results. Then select **Ease of Access** > **Speech Recognition** to get additional configuration options for speech recognition.

[Equal Entry video on Using Cortana and Speech Recognition Together on Windows 10](#)

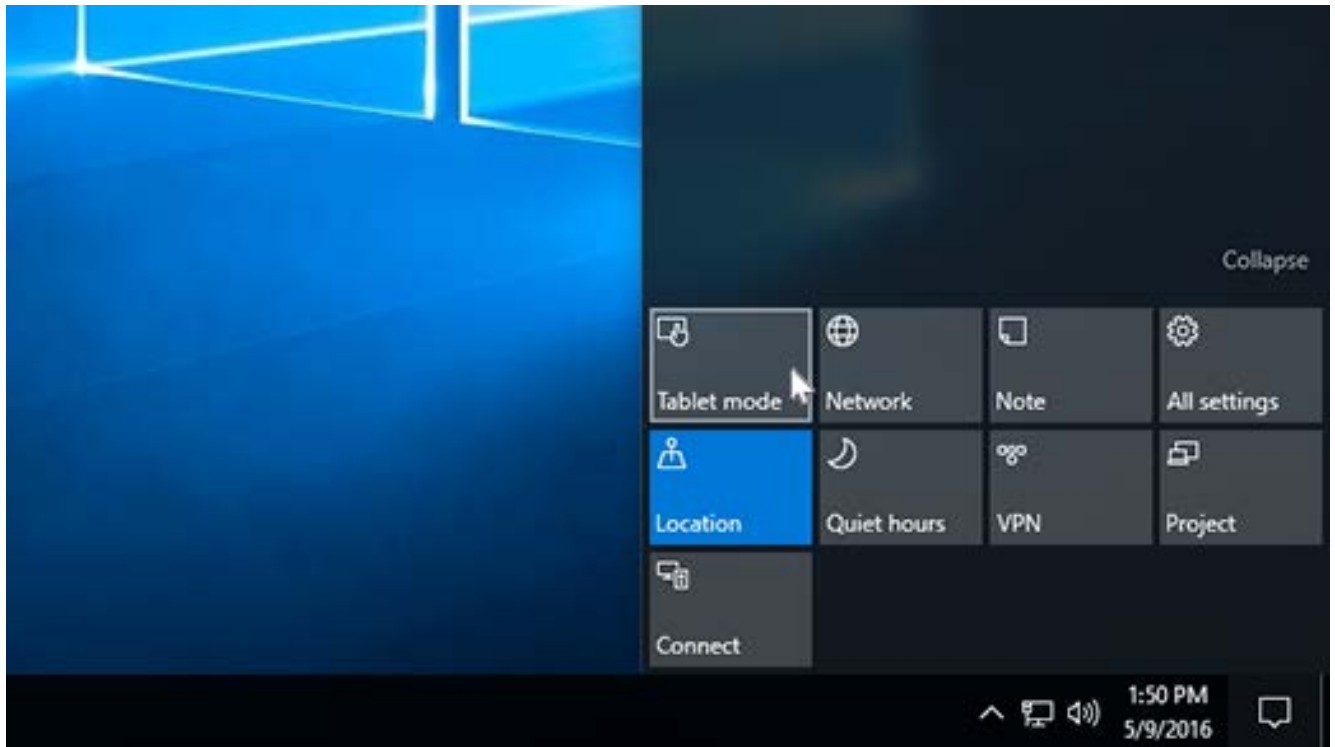
[Learn more about Speech Recognition](#)

[Learn commands for Windows Speech Recognition](#)

#### *H. Use Tablet mode*

To make it easier to tap small or clustered icons users can turn on **Tablet mode**. Applications will open full screen and give users more space to work with. To turn **Tablet mode** on, select **Action Center** on the taskbar and then select **Tablet mode**.

*Caption 13: The Action Center open with Tablet Mode selected*



[Learn more about using your PC like a tablet](#)

I. Touch shortcuts in Windows

To navigate Windows using touch here are some touch shortcuts:

Swipe this way	To do this
from the right	Opens Action Center.
from the left	View all your open apps in task view.
from the top	View a full-screened app's title bar.
from the bottom	View the task bar in full-screened apps.

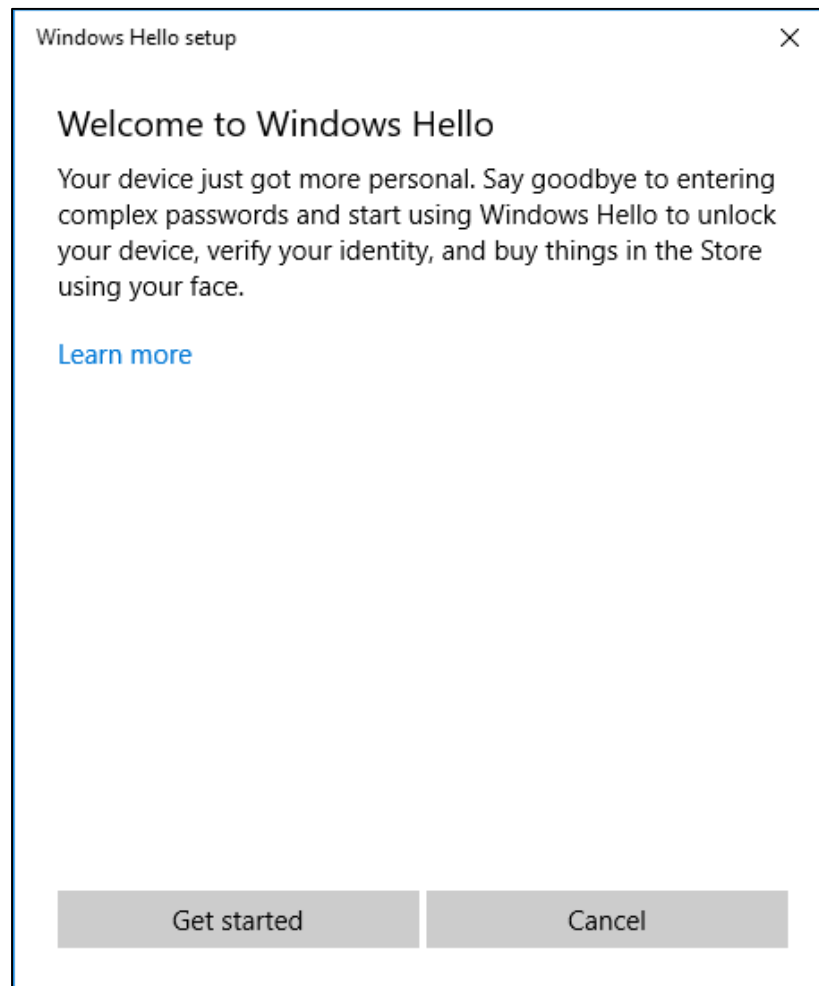
[Learn more about using touch in Windows](#)

I. *Windows Hello*

Windows Hello is an easy way to sign in to Windows without typing a password or PIN. This sign-in option can use face recognition as a hands-free sign-in or it can use a finger print reader. Some computers don't have the technology to support face recognition, so check to see if your PC is compatible with Windows Hello.

1. Press the **Windows Logo Key** .
2. Select **Settings > Accounts > Sign-in options** to set up Windows Hello.


*Caption 14: Windows Hello is an easy way to unlock your device and verify your identity*



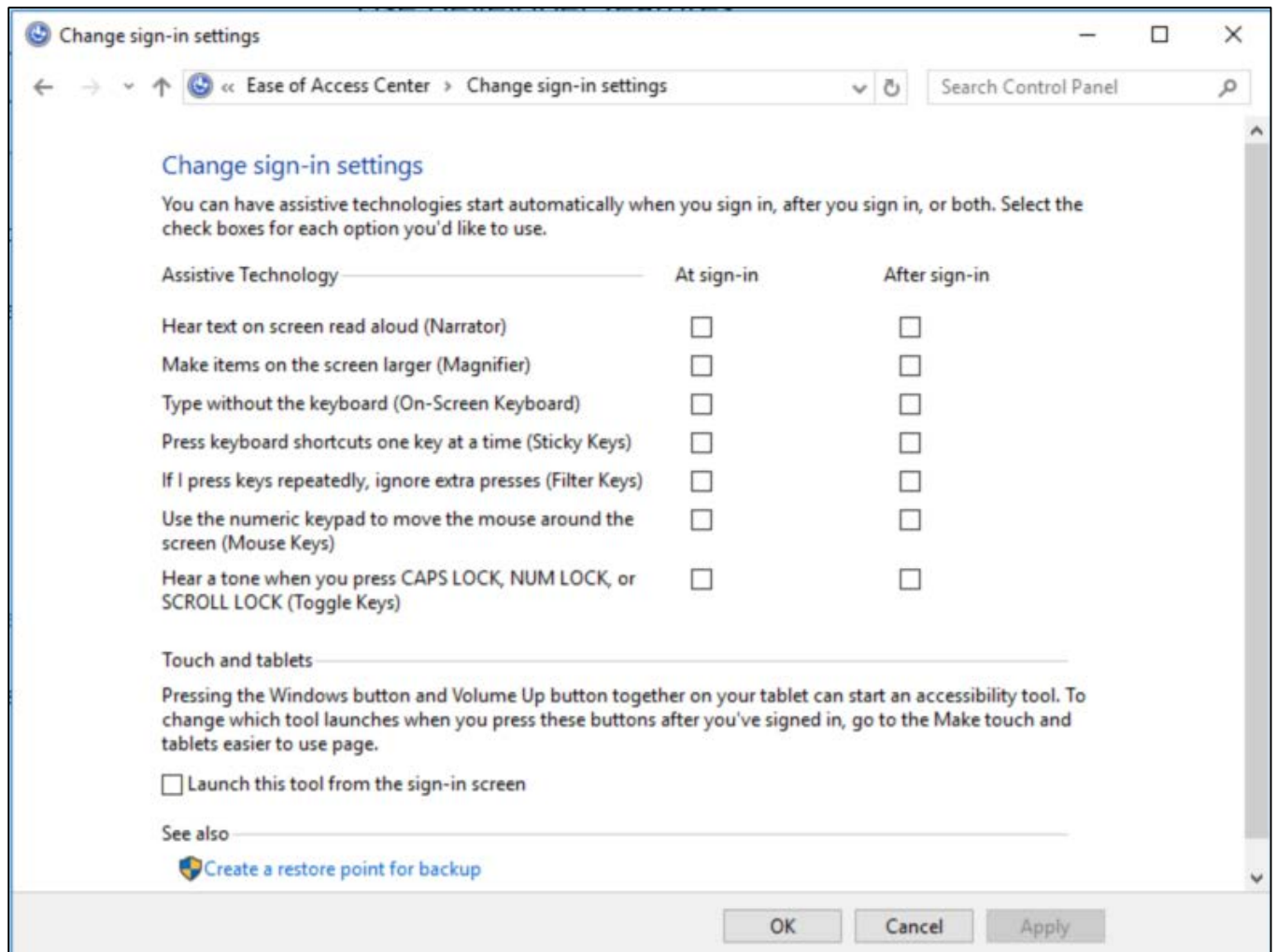
[Learn more about Windows Hello](#)

### *J. Customize sign-in settings*

You can customize sign-in settings, so that accessibility features start automatically when you sign in, after you sign in, or both. To customize sign-in settings:

1. Press **Windows Logo Key**  to open.
2. Type **Ease of Access Center** and select **Ease of Access Center** from the results.
3. Select **Change sign-in settings**.
4. Select the check boxes for the options you would like to use and then select **OK**.

*Caption 15: A list of sign-in settings you can change in the Ease of Access Center*



### 3. Make Accessible Documents with Office

Built-in features in Microsoft Office can help you make your documents, spreadsheets, and presentations accessible to individuals who have lower mobility or dexterity. For more information on how to make your content accessible, please visit the [Office Accessibility Center](#) and [Accessibility in Office 2016 and Windows 10](#). Check back regularly as we frequently add new articles and product tutorials.

#### A. Accessibility Checker

Word, Excel, PowerPoint, and OneNote include an **Accessibility Checker** that identifies some content that might be inaccessible to individuals with disabilities. You can use the **Accessibility Checker** while you author to inspect errors as they occur and learn how to fix issues.

To Open the **Accessibility Checker**:



1. Press **Alt + F** to open the **File** menu.
2. Select **Info**.
3. Select **Check for Issues**.
4. Select **Check Accessibility**.

*Caption 16: An example of some issues found in the Accessibility Checker*



[Learn more about the Accessibility Checker](#)

[Learn more about the Accessibility Checker on the Mac](#)

## 4. Use Accessibility Features in Office

### A. *Do Things Quickly with Tell Me in Office 2016*

You might have noticed a new text box on the Ribbon in Office 2016. This is **Tell Me**, where you can enter words or phrases about what you want to do next and quickly get to features in Office 2016.

1. Press **Alt + Q**.
2. Start typing something like "insert table" or "Accessibility Checker."
3. Select what you want to do from the list of suggestions.

[Learn more about Tell Me](#)

### B. *Get Keyboard Shortcuts and Steps for Using Assistive Technology with Office*

Office for Windows, Online, Mac, iOS, Android, and Windows Mobile provides support for assistive technology. You can read about the accessibility features for your specific environment at the **Office Accessibility Center**. There you can get all the latest accessibility information on products such as Word, PowerPoint, Excel, Outlook, and even others outside of the Office Suite such as Skype or OneDrive.

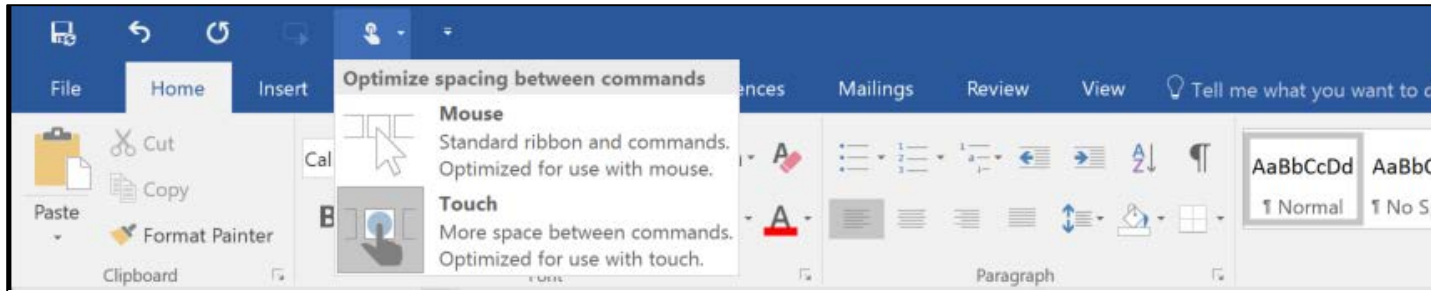
1. Visit the [Office Accessibility Center](#).
2. Select the app you want to learn about.
3. Navigate to the section for your device.

### C. *Turn on Touch Mode*

**Touch Mode** is a feature in Microsoft Office that gives more space when selecting a command or function without using a mouse or keyboard. Here are a series of steps on how to add it to the Quick Access Toolbar:

1. In any Microsoft Office 2016 program select **Customize Quick Access Toolbar**
2. Then select **Touch/Mouse Mode**.
3. To turn on **Touch Mode** select the touch icon in the **Quick Access Toolbar**.

*Caption 17: Touch Mode in Microsoft Word 2016*



## 5. Browse the Accessibility Features of Internet Explorer and Edge

Microsoft browsers come with built-in accessibility features designed for individuals who have low mobility or dexterity. You can also customize options in Internet Explorer and Edge to meet your individual vision needs and preferences.

### A. Accessibility Resources with Microsoft Edge

There are several additional accessibility resources for Microsoft Edge.

[Learn more about Accessibility in Microsoft Edge](#)

### B. Browse the web with a Keyboard

You can use keyboard shortcuts to quickly access menu items and navigate webpages.

- Use the **Tab key** and **Shift + Tab** to move forward and backward through webpages and the address bar in Internet Explorer.
- Move around within a webpage using the standard navigation keys on your keyboard—**Home**, **End**, **Page Up**, **Page Down**, and the **arrow keys**.

### C. List of Keyboard Shortcuts in Microsoft web browsers

Here is a short list of some keyboard shortcuts that can be used in both Microsoft Edge and Internet Explorer.

Shortcut	Action
<b>Ctrl + D</b>	Add current site to favorites or reading list
<b>Ctrl + F</b>	Find on page
<b>Ctrl + H</b>	Open history pane
<b>Ctrl + I</b>	Open favorites pane
<b>Ctrl + J</b>	Open downloads pane
<b>Ctrl + N</b>	Open a new window
<b>Ctrl + P</b>	Print the current page

Shortcut	Action
<b>Ctrl + T</b>	Open a new tab
<b>Ctrl + W</b>	Close current tab
<b>Ctrl + K</b>	Duplicate tab
<b>Alt + C</b>	Open Cortana (in Edge only)

[Learn more about Microsoft Edge keyboard shortcuts](#)

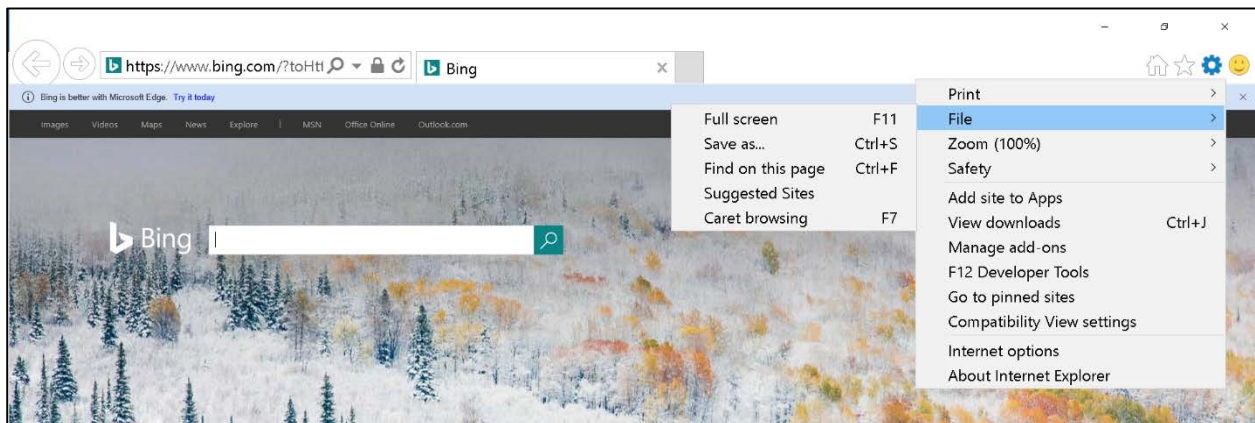
[Learn more about keyboard shortcuts for Internet Explorer](#)

[Learn more about Keyboard shortcuts in Windows](#)

#### D. Use Caret Browsing in Web Browsers

Caret Browsing is a way of using the Keyboard keys **Home**, **End**, **Page Up**, **Page Down**, the **Arrow Keys** and **Tab** to navigate through web browsers. Caret Browsing also selects text. To initiate Caret Browsing select **File > Caret Browsing**. You can also press **F7** to turn Caret Browsing on or off.

*Caption 18: Caret Browsing is another unique way to quickly navigate through and access menu items*



[Learn about Caret Browsing in Internet Explorer](#)

## 6. Assistive Technology for People with Low Mobility or Dexterity

Here is a list of common types of assistive technology for individuals who have low mobility or dexterity:

- **Ergonomic keyboards and mice** are designed to be more comfortable than a standard keyboard and mouse, and may reduce muscle strain and other discomfort.

- **Eye Tracking** is a mobility technology that uses your eyes to control a computer instead of the traditional keyboard and mouse. It can be calibrated for better accuracy, and increase engagement for someone with a disability. Microsoft Research has an ongoing research project in the field of eye tracking. [Learn more about the Eye Gaze project.](#)
- **Joysticks** can be used to control the cursor on the screen. Joysticks benefit users who need to operate a computer with or without the use of their hands. Some people might operate the joystick with their feet or with the use of a cup on top of the joystick that can be manipulated with their chin.
- **Trackballs** can be rotated with a pointing device or a hand. People who have fine motor skills can use these devices more easily and comfortably than a traditional mouse.
- **On-screen keyboards** provide an image of a standard or modified keyboard on the computer screen. The user selects the keys with a mouse, touch screen, trackball, joystick, switch, or electronic pointing device. On-screen keyboards often have a scanning option.
- **Keyboard filters** include typing aids, such as word prediction utilities and add-on spelling checkers. These products can often be used to reduce the number of required keystrokes. Keyboard filters enable users to quickly access the letters they need and to avoid inadvertently selecting keys they don't want.
- **Touch screens** are devices often built into a monitor that allow direct selection by touching the screen. These devices can present a more accessible target. Some users might make their selections with assistive technology such as mouth sticks. Fingers can be used to scroll, resize windows, play media, and pan and zoom.
- **Alternative input devices** (including [alternative keyboards](#), electronic pointing devices, [sip-and-puff systems](#), wands and sticks) allow individuals to control their computers through means other than a standard keyboard or pointing device.
- **Voice Recognition Software** is designed to make it easier for you to navigate through your PC faster with your voice than with a keyboard and mouse.

[Learn more about Assistive Technology products for Windows](#)

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