

Get started with Narrator

Content provided by Microsoft

Applies to: Windows 10

Narrator is a screen-reading app built into Windows 10. This guide describes how to use Narrator with the Windows 10 April 2018 Update on desktop PCs, providing you with enough info to start exploring Windows, using apps, and browsing the web. It's written for those who use a screen reader regularly.

To use this guide, choose a link from the following table of contents. When you're done reading a chapter or appendix, select the Back button in your browser to return to this page and select another chapter. There are also links at the end of each chapter and appendix to go to the next chapter or return to this table of contents.

Following the table of contents on this page, there is a section about what's new in Narrator in the Windows 10 April 2018 Update.

Note

This content is [available online](#). This document was up to date as of July 17, 2018. You can also [download a previous version in braille](#) (US English non-UEB grade 2 braille). To obtain additional languages or grades, contact the [Disability Answer Desk](#).

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What's new

We've made several improvements to Narrator in the Windows 10 April 2018 Update.

A fresh look for settings

Ease of Access settings in Windows are now easier to discover, learn and use. Settings are grouped by ability (vision, hearing, and interaction), with the most frequently used settings listed first. To get directly to Narrator settings, press **Windows logo key + Ctrl + N**.

To learn more about customizing Narrator, see [Chapter 6: Customizing Narrator](#).

Easier navigation in Windows apps

Heading and landmark navigation is available in some Windows 10 apps, such as the Settings app and the Weather app, with more apps coming soon.

For more info about heading and landmark navigation, see [Chapter 2: Learning Narrator basics](#) and [Chapter 3: Using scan mode](#).

Better reading by character

When reading by character, Narrator now includes the ICAO phonetic alphabet pronunciation to help differentiate between letter such as "b" and "p" by saying words like "bravo" and "papa."

For more info about reading text, see [Chapter 4: Reading text](#).

New audio settings

You can now choose your audio output device with Narrator. Press **Windows logo key + Ctrl + N** to open Narrator settings, and then choose your device under **Select Narrator audio output device**.

To learn more about customizing Narrator, see [Chapter 6: Customizing Narrator](#).

Improved responsiveness

Narrator is more responsive in the latest update. When you press any key on your keyboard, Narrator will now immediately silence speech. Narrator also no longer announces navigational keys as you type, but only announces alphanumeric keys and punctuation.

To learn more about customizing Narrator, see [Chapter 6: Customizing Narrator](#).

Braille improvements

It's now easier to switch between different braille drivers if you use more than one screen reader. To do this, press **Windows logo key + Ctrl + N** to open Narrator settings, and select an option under **Change your braille display driver**.

You can now also use your serial braille display before you sign in to your PC. To do this, select the **Use current settings before sign-in** option in Narrator settings after you've installed braille and selected your preferred settings.

For more info, see [Chapter 7: Using Narrator with braille](#).

Safe mode and Narrator cursor support

Narrator now works when in safe mode. For additional assistance working in safe mode, contact the [Disability Answer Desk](#).

The Narrator cursor and system focus are now synced by default.

Chapter 1: Introducing Narrator

This chapter provides an overview of Narrator and how to start and stop it.

Narrator lets you use your PC without a display or mouse to complete common tasks if you're blind or have low vision. It reads and interacts with things on the screen, like text and buttons. Use Narrator to read and write email, browse the internet, and work with documents.

Specific commands let you navigate Windows, the web, and apps, as well as get info about the area of the PC you're in. Navigation is available using headings, links, landmarks, and more. You can read text (including punctuation) by page, paragraph, line, word, and character as well as determine characteristics like font and text color. Efficiently review tables with row and column navigation.

Narrator also has a navigation and reading mode called Scan Mode. Use it to get around Windows 10 using just the up and down arrows on your keyboard. You can also use a braille display to navigate your PC and read text.

Finally, you can adjust the speaking rate, pitch, and volume of the voice that Narrator uses as well as install some third-party text-to-speech voices.

Three ways to start and stop Narrator

- Press **Windows logo key + Ctrl + Enter** together to start Narrator. Press these keys again to stop Narrator. If you're using a previous version of Windows, press **Windows logo key + Enter** together to start and stop Narrator. On many keyboards, the Windows logo key is located on the bottom row of keys, to the left or right of the Alt key.
- Press **Windows logo key + Ctrl + N** to open Narrator settings, and then use the toggle under **Narrator** to turn it on.
- On the lower-right corner of the sign-in screen, select the **Ease of Access** button (or press **Windows logo key U**) and then choose **Narrator**.

Customize Narrator to start automatically before or after you sign in to your PC

1. Press **Windows logo key + Ctrl + N** to open Narrator settings.
2. To start Narrator automatically after you sign in, select **Start Narrator after sign-in**.

To start Narrator automatically before sign in for all users, select **Start Narrator before sign-in for everyone**.

Chapter 2: Learning Narrator basics

This chapter explains Narrator keyboard navigation. This includes how to get around the screen, find and open apps, and change what Narrator reads. It also explains the basic details of adjusting Narrator speech rate, volume, and how to stop speech.

Basic keyboard navigation in Windows

Tab, cursor, and function keys

In Windows, use the Tab key or the cursor keys (also known as arrow keys) to move around apps and web pages. Some keyboards also have function keys located above the number keys at the top of the keyboard. Function keys can be used for navigation in some apps. On certain keyboards, some function keys are programmed to do hardware-related actions such as adjusting volume. If your keyboard has an Fn (function) key, you must press the Fn key and the function key together to use the function key for other actions.

Input learning

To hear the command for each key on the keyboard, press **Caps lock + 1** to turn on input learning. When Input learning is turned on, Narrator tells you the name of the key and the associated command when you press it. To turn off input learning, press **Caps lock + 1** twice. Input learning also works with braille and touch input.

Caps lock key

When Narrator is turned on, press the Caps lock key (also known as the Narrator key) together with other keys to navigate and interact with things on the screen.

You can lock the Narrator key in Narrator settings so you don't have to press the Caps lock key for each command. With Narrator turned on, open Narrator settings on the taskbar, select **General**, and then select **Lock the Narrator key so you don't have to press them for each command (Caps Lock)**. You can also press **Caps lock + Z** to lock the Narrator key.

Stop Narrator from reading

To stop Narrator from reading at any time, press the **Ctrl** key or choose another command.

Windows keyboard shortcuts

Windows and Windows apps have keyboard shortcuts that you can use alongside Narrator commands. For example, press the **Windows logo key** to open the Start menu, or, to open action center, press the **Windows logo key + A**.

For a list of the keyboard shortcuts you can use in Windows, see [Keyboard shortcuts in Windows](#).

For a list of keyboard shortcuts in Windows apps, see [Keyboard shortcuts in apps](#).

For a list of keyboard shortcuts in other Windows assistive technologies, see [Windows keyboard shortcuts for accessibility](#).

Narrator views

To go beyond basic keyboard commands using the Tab, cursor, and function keys, use Narrator views.

Narrator views let you to change how Narrator navigates apps and webpages, and includes the following: items, characters, words, lines, paragraphs, links, headings, tables, landmarks, suggestions, and form fields.

Items is the default view when you start Narrator. An item can be anything from a button in an app, a link, or text in a webpage. To move by item, press **Caps lock + Left arrow** or **Caps lock + Right arrow**. When you find an item that you want to activate, press **Caps lock + Enter**. To have Narrator read the current item press **Caps lock + D**. To have Narrator repeat the last phrase spoken, press **Caps lock + V**.

To change Narrator views, press **Caps lock + Up arrow** or **Caps lock + Down arrow**.

Note

Not all views are always available. For example, views such as lines, paragraphs, and tables are typically available only when text is available to read, such as in webpages or emails.

Suggestions

Suggestions are available when you enter information in a text box in some apps and parts of Windows. For example, when you enter text in the search box after pressing the Windows logo key, suggestions are provided as you type. When a suggestion is available, Narrator indicates it by playing a sound and voice message.

When a suggestion is available, press **Caps lock + Down arrow** to change to Suggestions view, and then **Caps lock + Left arrow** or **Caps lock + Right arrow** to move to the suggestion, and then **Caps Lock + Enter** to select it. Or, press the **Up arrow key** and **Down arrow key** to move through suggestions and press **Enter** to select one.

Landmarks

Landmarks are groups of items that are available in some apps and webpages. In Windows 10, Microsoft Store and Weather apps also have landmarks. Some Windows features like the Start menu also have landmarks. To see if a landmark is available, press **Caps lock + Up**

arrow to switch to landmarks view, and then use **Caps lock + Left arrow** or **Caps lock + Right arrow** to move through landmarks.

Get around apps and web pages

Find and open apps

To quickly find an app in Windows 10, press the **Windows logo key** on your keyboard to open the Start menu and place focus in the search box. Type the name of the app that you're looking for and press the Enter key to open it.

Switch between apps

To switch between open apps on your PC, hold down the **Alt key** and then press the **Tab key**. Narrator will speak the name of open apps as you cycle through them. When you find the app that you want to use, release both keys.

If at any time you need to know which app or Window has focus, press **Caps lock + T** to read the title of the window that has focus. To read the title and contents of the window that has focus, press Caps lock + W.

Quickly explore content with scan mode

When you open an app or webpage, get a quick overview using scan mode, a reading and navigation mode in Narrator. To turn on scan mode, press **Caps lock + Spacebar**. Then use the following commands to move by heading, landmark, or link.

Press this key	To do this
H or Shift + H	Move to the next or previous heading
D or Shift + D	Move to the next or previous landmark
K or Shift + K	Move to the next or previous link

To read content in more detail, use Up arrow key and the Down arrow key to move to the next or previous paragraph of text. Or, press **Caps lock + R** and Narrator will begin reading continuously from your current location.

For more info about how to use scan mode, including a list of additional commands, see [Chapter 3: Using scan mode](#).

For more info on reading text, see [Chapter 4: Reading text](#).

Change speech rate and volume

You can change the volume or how fast or slow Narrator speaks. To change Narrator volume, press **Caps lock + Page up** to increase the volume, or **Caps lock + Page down** to decrease the volume.

To change the rate at which Narrator speaks, press **Caps lock + Plus (+)** and **Caps lock + Minus (-)**.

Give feedback

Your feedback helps make Narrator better. When Narrator is turned on, press **Caps lock + E** to open the Feedback Hub to provide feedback about Narrator. You can also leave comments on the [Microsoft Accessibility User Voice](#) website. Additionally, for technical support for Narrator or other Microsoft assistive technology, contact the [Microsoft Disability Answer Desk](#).

If you want to provide Microsoft with additional diagnostic and performance data when you press **Caps lock + E**, press **Windows logo key + Ctrl + N** to open Narrator settings, and then select the toggle under **Help make Narrator better** and then restart Narrator.

Chapter 3: Using scan mode

This chapter describes a navigation and reading mode called scan mode. Scan mode lets you navigate apps, email, and webpages using the arrow keys along with common keyboard shortcuts to read text and jump directly to headings, links, tables, and landmarks.

Scan mode basics

To turn scan mode on and off, press **Caps lock + Spacebar**.

When turned on, use the Up arrow key and Down arrow key to navigate apps and webpages. Press the spacebar to activate an item that you want to use, such as a button in an app, a link in a webpage, or a text box.

Scan mode turns on automatically when you use Microsoft Edge to browse the web. It also turns on automatically when you open any Windows app where you turned it on before.

If you turn scan mode off for an app, it will remain off for that app until you turn it on again.

Navigation

When scan mode is turned on, use the following keys to navigate apps and webpages.

Press this key	To do this
Up arrow and Down arrow	Move to the next or previous paragraph of text or control in an app or webpage Note Scan mode automatically turns off in edit fields so you can enter text. Press up or down arrow again to leave the edit field and resume scan mode.
Right arrow and Left arrow	Move to the next or previous character in an app or webpage
Spacebar	Activate an item that you want to use, such as a button or text box
Enter	If supported, do secondary action on an item
Home and End	Move to the start or end of a line of text in an app or webpage
Ctrl + Home and Ctrl + End	Move to the beginning or end of text

Ctrl + Left arrow and Ctrl + Right arrow	Move to the next or previous word
Ctrl + Up arrow and Ctrl + Down arrow	Move to the next or previous line
B or Shift + B	Move to the next or previous button
C or Shift + C	Move to the next or previous combo box
D or Shift + D	Move to the next or previous landmark
E or Shift + E	Move to the next or previous edit field Note Scan mode won't turn off automatically when navigating by edit field. Narrator will tell you to press space to edit if you want into type into the edit field.
F or Shift + F	Move to the next or previous form field
H or Shift + H	Move to the next or previous heading
I or Shift + I	Move to the next or previous item
K or Shift + K	Move to the next or previous link
R or Shift + R	Move to the next or previous radio button
X or Shift + X	Move to the next or previous check box
T or Shift + T	Move to the next or previous table
P or Shift + P	Move to the next of previous paragraph
Number keys 1 to 9 or Shift + number keys 1 to 9	Move to the next or previous heading level 1 through 9

Scan mode will turn off when you switch to a different app. You'll hear a sound from your PC indicating that scan mode is turned off. Press **Caps lock + Spacebar** to turn it on again.

Working with tables

Scan mode can help make moving through tables easier and supports common keys found in other screen readers for table navigation. Press **T** or **Shift + T** to locate a table using scan mode and then use the following keys to interact with the table.

Press this key	To do this
Ctrl+ Alt + Right arrow or Left arrow	Move to the next or previous cell in a row
Ctrl+ Alt + Up arrow or Down arrow	Move to the next or previous cell in a column
Caps Lock + F5	Announce location in table
Caps Lock + F9	Announce column header
Caps Lock + F10	Announce row header
Caps Lock + F7	Read the current table column from start to finish
Caps Lock + F8	Read the current table row from start to finish

You can also use these keys to interact with tables when scan mode is turned off.

Chapter 4: Reading text

This chapter explains how to read text with Narrator and how to get info about text, such as font, text color, and punctuation.

There are several ways to read text using Narrator. The first and simplest way is to use the arrow keys to navigate text if you're interacting with a document in a word processor, such as Microsoft Word.

You can also use Scan Mode to read text. To turn on Scan Mode, press **Caps lock + Spacebar**. Then use the up and down arrow keys to read by paragraph and the left and right arrow keys to read by character. To learn more about Scan Mode, see [Chapter 3: Using Scan Mode](#).

When you want more control over what text you read, Narrator provides a series of text reading commands to help navigate and read text.

- To read a complete document or webpage from the beginning, press **Caps lock + H**.
- To read a document from the beginning to the current cursor position, press **Caps lock + Right bracket (])**.
- To read continuously from the current location in a document or webpage, press **Caps lock + M**.
- To move the Narrator cursor and text insertion point to the beginning of a document or webpage, press **Caps lock + Y**.
- To move the Narrator cursor and text insertion point to the end of a document, press **Caps lock + B**.

Narrator also provides commands to help navigate and read text in apps.

- To read everything in an app, press **Caps lock + W**.
- To read continuously from the current location, press **Caps lock + R**.
- To move the cursor to the beginning of an app, press **Caps lock + Home**.
- To move the cursor to the end of an app, press **Caps lock + End**.

Work with paragraphs, lines, words, and characters

Narrator provides ways to read text by page, paragraph, line, word, and character.

To read by page

- To read the current page, press **Caps lock + Ctrl + U**.
- To read the next page, press **Caps lock + U**.
- To read the previous page, press **Caps lock + Shift + U**.

To read by paragraph

- To read the current paragraph, press **Caps lock + Ctrl + I**.
- To read the next paragraph, press **Caps lock + I**.
- To read the previous paragraph, press **Caps lock + Shift + I**.

To read by line of text

- To read the current line, press **Caps lock + Ctrl + O**.
- To read the next line, **Caps lock + O**.
- To read the previous line, **Caps lock + Shift + O**.

To read by word

- To read the current word, press **Caps lock + Ctrl + P**.
- To read the next word, press **Caps lock + P**.
- To read the previous word, press **Caps lock + Shift + P**.

To read by character

- To read the current character, press **Caps lock + Ctrl + Left bracket ([)**.
- To read the next character, press **Caps lock + Left bracket ([)**.
- To read the previous character, press **Caps lock + Shift + Left bracket ([)**.

Tips

- As a best practice, use these text reading commands and Scan Mode together. For example, turn on Scan Mode and use the up and down arrow keys to read by paragraph and **Caps lock + O** or **Caps lock + Shift + O** to read by line. If you want to reread the current line, press **Caps lock + Ctrl + O**. To reread the current paragraph, press **Caps lock + Ctrl + I**.

- If an app doesn't support text reading commands, Narrator will say "not on explorable text." In this case, use Scan Mode to navigate and read text.

Get more detail on text

Narrator provides different levels of detail about the characteristics of text, known as verbosity. To change the level of verbosity, press **Caps lock + A** until you hear the level that you want.

- **Verbosity level 0.** Hear only text.
- **Verbosity level 1.** Hear basics such as heading levels, and errors in documents such as spelling and grammar. This is the default level.
- **Verbosity level 2.** Hear formatting frequently found on webpages and in email, such as bullet styles, text bold, underline, italic, subscript, superscript, and color.
- **Verbosity level 3.** Hear additional annotations, such as document headers and footers.
- **Verbosity level 4.** Hear extended formatting, such as font name, size, and other list styles.
- **Verbosity level 5.** Hear layout and animation information, such as the type of animation, whether a paragraph starts with an indent or not, and more.

Notes

- You can also press **Caps lock + Ctrl + Plus sign (+)** or **Caps lock + Ctrl + Minus sign (-)** to select different verbosity levels.
- To check advanced information about text at any time, press **Caps lock + 0** (Zero).

Get details on formatting

Narrator provides details about formatting, such as font name, font size, and text alignment. To hear formatting attributes, press **Caps lock + F**. To hear the next group of formatting attributes, press **Caps lock + F** again. To hear the previous group of formatting attributes, press **Shift + Caps lock + F**.

Formatting information is separated into the following groups:

- **Font information.** Font name, weight, size, italic, underline, underline color, strikethrough, background color, foreground color.
- **Advanced font information.** Hyperlink, style, bullet style, subscript, superscript, capitalization style, outline style, overline color, language.

- **Object color and outline information.** Fill type (none, color, gradient, picture, or pattern), fill color, outline color, outline thickness.
- **Paragraph spacing Information.** Line spacing, before paragraph spacing, after paragraph spacing.
- **Page margin information.** Top margin, bottom margin, leading margin, trailing margin.
- **Alignment information** Horizontal text alignment, text flow direction, indentation first line, indentation leading, indentation trailing.
- **Visual effects information.** Animation style, visual effects (reflection, glow, soft edges, and bevel).
- **Object layout information.** Center point, size, rotation.
- **Annotation information.** Annotations such as spelling and grammar suggestions and comments.

Hear punctuation

Narrator gives you control over how much punctuation you hear when reading text. Press **Caps lock+ Alt + Plus sign (+)** or **Caps lock+ Alt + Minus sign (-)** until you hear the punctuation mode you want to use: Default, Math, Some, Most, or All.

- **Default.** Hear little to no punctuation. Natural pauses will indicate items such as commas and periods.
- **Math.** Hear most mathematical symbols.
- **Some.** Hear most conversational punctuation, such as commas and periods.
- **Most.** Hear additional symbols, such as parentheses.
- **All.** Hear all punctuation, including all special symbols.

Read text in other languages

When reading text in a different language, Narrator will automatically select the text-to-speech (TTS) voice for that language if it's installed. To learn more about installing additional TTS voices, see [Appendix C: TTS voices](#).

If the TTS voice for a language isn't installed, Narrator will state the name of the language and read the text using the default TTS voice.

Chapter 5: Using Narrator with touch

This chapter provides details about how to use Narrator with touch on supported desktop Windows PCs, and describes some basic Windows touch gestures.

Starting and stopping Narrator

To start Narrator on a Windows device that doesn't have a keyboard, press the Start button and the Volume Up button together on your device. Press these buttons again to stop Narrator.

Touch gestures

You can use gestures to interact with Narrator and your device.

To explore and hear items on a screen, drag one finger around the screen. When you hear an item that you want to use, double-tap the screen with one finger to activate it. To move through items on the screen, flick left and right with one finger.

If you want to move by characters, words, lines, or links, flick up or down to change the Narrator view. For example, to hear an item spelled out, flick up until you hear Narrator say "characters". Then flick left and right to move through that item a letter at a time.

The following are important gestures to help you get started:

- To change Narrator views, flick up and down with one finger.
- To scroll, flick up, down, left or right with two fingers.
- To show context menus, double-tap with two fingers.
- To change verbosity, tap once with three fingers.
- To read continuously from the current position, swipe down with three fingers.
- To tab forward or backward, flick left or right with three fingers.
- To show the Narrator command list, triple tap with four fingers.

For a complete list of touch gestures, see [Appendix B: Narrator keyboard commands and touch gestures](#).

Additional touch gestures for Windows

The following gestures are also available in Windows 10:

- To open Action Center, swipe in from the right side of the screen.
- To open Task View to switch between apps and multiple desktops, swipe in from the left side of the screen.

Typing by touch

When in an editing area, such as a text box, a touch keyboard will appear in the lower part of the screen and Narrator will play a sound to indicate that a keyboard has appeared. To enter text, double-tap the characters you want to enter.

To enter text more quickly, change a Narrator setting to enter characters as soon as you lift your finger off the character. To turn on this option, select the **Start** button, then select **Settings**, select **Ease of Access**, and then select **Narrator**. Use the toggle under **Activate keys on touch keyboard when I lift my finger off the keyboard** to turn on the setting.

Chapter 6: Customizing Narrator

This chapter outlines how to customize Narrator to best meet your needs, including changing how Narrator starts, how much feedback you hear when typing, whether the audio from other apps is decreased when Narrator is running, and changing Narrator commands to keyboard shortcuts of your choice. The chapter also provides details about how to use third-party text-to-speech (TTS) software to add more voices to Narrator.

Most options are in Narrator settings. To find them, open Narrator settings on the taskbar when Narrator is turned on.

Settings are separated into four categories: general settings, navigation settings, voice settings, and command settings.

Note

- Some settings are also available in Windows 10 Settings—press the **Windows logo key + Ctrl + N** to see them.
- If you want everyone to use your settings before sign-in, press the **Windows logo key + Ctrl + N** to open Narrator settings and then select **Use current settings before sign-in**. This is recommended if you want to use a serial braille display before sign-in.

General settings

- **Turn on the shortcut to launch Narrator.** Start and stop Narrator using the **Windows logo key + Ctrl + Enter** on a keyboard, or the **Windows button + Volume up button** on a touch device.
- **Lock the Narrator key (Caps lock).** You don't have to press the Narrator key (Caps lock) to enter a command. For example, to move to the next link, press **L** instead of **Caps lock + L**.
- **Hear characters as you type.** Characters are announced immediately after you type them. This setting can be toggled by pressing **Caps lock + F12**.
- **Hear words you type.** Typed words are announced immediately after you type them.
- **Read out voiced Narrator errors.** Narrator announces errors such as "no next landmark" or "no next item."
- **Highlight cursor.** The Narrator cursor is highlighted with a blue focus box.

- **Play audio cues.** Narrator plays a sound when you do things like perform a Narrator command or when suggestions are available.
- **Read UI hints.** Narrator announces how to interact with items.
- **Lower the volume of other apps.** The audio volume from other apps is lowered so that you can hear Narrator.
- **Retain notifications.** Notifications can be retained from 30 seconds to 10 minutes.

Navigation settings

- **Read and interact with the screen using the mouse.** When this is turned on, Narrator reads what is under the mouse cursor. Use Numeric keypad to move the mouse.
- **Activate keys on the touch keyboard when you lift your finger.** Characters are entered as soon as you lift your finger off the touch keyboard.
- **Narrator cursor follows keyboard focus.** When this is turned on, the Narrator cursor and the system cursor will be synchronized when possible.
- **Enable the text insertion point to follow the Narrator cursor.** When this is turned on, Narrator will move the text insertion point when navigating by views such as characters and words.
- **Select the Narrator cursor movement mode.** Two modes are available: normal and advanced. Normal mode allows Narrator to move between various items such as links, tables, and other elements. Advanced mode lets you use the four arrow keys to move the Narrator cursor through a programmatic representation of an application.

Voice settings

- **Speed.** Control the speed at which Narrator speaks.
- **Volume.** Adjust the volume at which Narrator speaks.
- **Pitch.** Adjust the pitch of Narrator voice.
- **Select a different voice.** Choose from different available Narrator voices in your language.

Faster voices

Narrator voices average a maximum of approximately 400 words per minute. However, the following voices offer a rate of approximately 800 words per minute:

- Microsoft David
- Microsoft Zira
- Microsoft Mark

Additional voices

Narrator can be used with SAPI 5-based speech synthesizers. Once installed, voices will appear in the list of voices for you to choose.

Here are some available options from third-party providers:

- [Harpo Software](#)
- [CereProc](#)
- [NextUp](#)
- [Eloquence](#)
- [Vocalizer Expressive](#)

Note

These options are provided for informational purposes only. Microsoft does not endorse any particular third-party software, nor can it offer any support for their installation and use. For help with any of these products, please contact the original manufacturer.

Audio settings

Narrator also lets you choose your audio output device. Press **Windows logo key + Ctrl + N** to open Narrator settings, and then choose your device under **Select Narrator audio output device**.

Command settings

Customize Narrator keyboard shortcuts to allow for improved control and usability:

Customize a Narrator keyboard shortcut

1. Choose the command to customize.
2. Select **Change command keyboard shortcut**.
3. In the **Type a keyboard shortcut** window, type the keyboard shortcut you want to use on your keyboard. Use any combination of modifier keys (Control, Shift, Alt, Caps lock, or the Windows logo key) together with a non-modifier key. Use function and numeric keypad keys without any modifiers.

Select **Restore default** to return all commands back to their default settings.

Hear different levels of context

Narrator can provide different levels of context as you navigate your PC. You control how much context is heard, and if context is read before or after the current item.

To change the amount of context you hear, and whether context is heard before or after the current item, select the **Start** button, then select **Settings**, select **Ease of Access**, and select **Narrator**. Under **Amount of contextual reading for controls and buttons**, choose from the following options:

- No context reading
- Play sounds only
- Read only immediate context
- Read immediate context name and type
- Read full context of new control
- Read full context of both the old control and the new control

Under **Order of contextual reading for controls and buttons**, choose whether you want to hear context before or after the current item.

You can also use the following keyboard shortcuts:

- To hear the current context at any time, press **Caps lock + forward slash (/)**.
- To change the level of context that's read, press **Caps lock + Alt + forward slash (/)**.
- To change whether context is read before or after the current item, press **Caps lock + Ctrl + forward slash (/)**.

Chapter 7: Using Narrator with braille

This chapter provides information about how to use a braille display with Narrator. It includes info about how to install braille on your PC, navigate your PC, and read text. Narrator supports braille displays from several manufacturers. To learn more about what braille displays are supported, including specific key commands for each display, see [Appendix D: Supported Braille Displays](#).

Note

Narrator braille is currently in beta, and your feedback can help make it better. When Narrator is running, press **Caps lock + E** to open the Feedback Hub. You can also leave comments on the Microsoft Accessibility User Voice website. For help with Narrator braille, [contact the Disability Answer Desk](#).

Install braille

Narrator works with braille displays that use a USB or serial port. To use your braille display with Narrator, download and install braille:

1. Press the **Windows logo key + Ctrl + N** to open Narrator settings.
2. Under **Braille (beta)**, select **Download and install braille**. (This will take some time. Windows will also ask if you're sure that you want to allow Windows to make changes to your PC.)
3. When download and installation is complete, select **Enable braille**.
4. Next, add your braille display. Select **Add a braille display** and then choose your braille display manufacturer and connection type (USB or serial port).

Using your braille display with other screen readers

If you already use your braille display with another screen reader, or Narrator doesn't work immediately with your braille display, you may need to change the driver Windows uses to communicate with your display. To do this, press **Windows logo key + Ctrl + N** to open Narrator settings, and select an option under **Change your braille display driver**. The driver used by Narrator is preceded by "(Narrator)."

Note

You only need to change your driver if a different driver is installed for your braille display. If you're not sure, contact your braille display manufacturer.

Uninstalling braille

To remove Narrator braille from your PC:

1. Press **Windows logo key + I** to open Settings.

2. Select **Apps**, choose **Apps & features**, and then select **Manage optional features**.
3. Select **Accessibility – Braille support**, and then choose **Uninstall**.

Change braille settings

Different settings let you customize how you use braille with Narrator. To get to them, press the **Windows logo key + Ctrl + N** to open Narrator settings. Then, under **Braille (beta)** choose from the following options:

- Language for input and output
- Table type for input and output (grade 1, grade 2, or 8 dot computer braille)
- Notification timeout
- How the cursor is displayed and if you want the cursor to blink on your braille display

If you want to use a serial braille display before you sign-in to your PC, select **Use current settings before sign-in** after choosing your preferred settings.

Braille keyboard commands

If your braille display has a braille keyboard, you can use it to enter text or do the following commands. The command to toggle the keyboard is **Space + Dots 1-3**.

Braille Dots	Narrator command
1-2-3-4 or 1-2-3-4-7	Go to the next or previous paragraph
1-2-5 or 1-2-5-7	Go to the next or previous heading
2-3-4-5 or 2-3-4-5-7	Go to the next or previous table
1-3 or 1-3-7	Go to the next or previous link
2-4 or 2-4-7	Go to the next or previous item
1-4-5 or 1-4-5-7	Go to the next or previous landmark
1-2-4 or 1-2-4-7	Go to the next or previous form field
1-2 or 1-2-7	Go to the next or previous button
1-4 or 1-4-7	Go to the next or previous combo box
1-5 or 1-5-7	Go to the next or previous edit field
1-2-3-5 or 1-2-3-5-7	Go to the next or previous radio button
1-3-4-6 or 1-3-4-6-7	Go to the next or previous check box
1-6 or 1-6-7	Go to the next or previous heading level 1

Braille Dots	Narrator command
1-2-6 or 1-2-6-7	Go to the next or previous heading level 2
1-4-6 or 1-4-6-7	Go to the next or previous heading level 3
1-4-5-6 or 1-4-5-6-7	Go to the next or previous heading level 4
1-5-6 or 1-5-6-7	Go to the next or previous heading level 5
1-2-4-6 or 1-2-4-6-7	Go to the next or previous heading level 6
1-2-4-5-6 or 1-2-4-5-6-7	Go to the next or previous heading level 7
1-2-5-6 or 1-2-5-6-7	Go to the next or previous heading level 8
2-4-6 or 2-4-6-7	Go to the next or previous heading level 9
Space + 1-2-3	Turn on input learning, press twice to turn off

Use the following commands for keyboard input.

Braille Dots	Keyboard input
Space + 4-5	Tab key
Space + 1-2	Shift + Tab key
Space + 2-3-4-5	Alt + Tab key
Space + 2-4-5-6	Windows logo key
Space + 1-2-3-5	Windows logo key + Tab key
Space + Routing Key 1 through 12	F1 through F12 keys
7	Backspace key
8	Enter key
Space + 2-6	Escape key
Space + 3	Cursor left key
Space + 6	Cursor right key
Space + 1	Cursor up key
Space + 4	Cursor down key
Space + 2-3	Page up key
Space + 5-6	Page down key
Space + 2	Home key

Braille Dots	Keyboard input
Space + 5	End key
Space + 3-5	Insert key
Space + 2-5-6	Delete key

The following commands allow you to enter and hold a modifier key followed by another letter or key.

Braille Dots	Keyboard input
Space + 1-8	Hold Windows logo key
Space + 2-8	Hold Alt key
Space + 3-8	Hold Ctrl key
Space + 4-8	Hold Shift key
Space + 5-8	Hold AltGr key
Space + 6-8	Hold Caps lock key
Space + 7-8	Release all modifier keys

Using touch cursors on your braille display

If your braille display has touch cursors you can use them to do certain actions.

Working with interactive elements

When the displayed content is an interactive element, tap any touch cursor above that content to do its primary action. Tap two adjacent touch cursors above the content to do its secondary action if one is available.

When the displayed content displayed isn't text, tap two nonadjacent touch cursors above the content to display a context menu if one is available.

Editing text

Use the following touch cursor commands when editing text:

- To move the text insertion point to a specific character, tap the touch cursor above the corresponding cell. You can also tap the touch cursor above a cell representing a character or its preceding modifier (such as a capital or a number) to do this as well. Caret representation will be on the cell after the modifier.
- To move the text insertion point to the last character on the display, tap the touch cursor above a blank cell at the end of the display.

- To do a secondary action, tap on two adjacent touch cursors on a corresponding character.
- To show a context menu, tap two nonadjacent touch cursors above the character closest to the center of the two nonadjacent touch cursors.

Note

Some displays don't support simultaneous pressing of two touch cursors. Therefore, there are additional commands for each display. To learn more about specific key commands for each display, see [Appendix D: Supported Braille Displays](#).

Appendix A: Supported languages

Narrator supports the following languages in the Windows 10 April 2018 Update:

- Arabic (Egypt, Saudi Arabia)
- Bulgarian
- Catalan
- Cantonese (Traditional)
- Chinese (Simplified and Traditional)
- Croatian
- Czech
- Danish (Denmark)
- Dutch (Netherlands and Belgium)
- English (United States, United Kingdom, India, and Ireland)
- Finnish (Finland)
- French (France, Canada, Switzerland)
- Italian
- German (Germany, Austria, and Switzerland)
- Greek
- Hebrew
- Hindi
- Hungarian
- Indonesian
- Japanese
- Korean
- Malay
- Norwegian (Norway)
- Polish
- Portuguese (Brazil, Portugal)
- Romanian
- Russian
- Slovak

- Slovenian
- Spanish (Spain and Mexico)
- Swedish (Sweden)
- Tamil
- Thai
- Turkish (Turkey)
- Vietnamese

Appendix B: Narrator keyboard commands and touch gestures

This appendix lists all keyboard commands and touch gestures supported by Narrator in the Windows 10 Creators Update.

To see a list of all other keyboard shortcuts in Windows, see [Keyboard shortcuts in Windows](#).

To see a list of keyboard shortcuts in Windows apps, see [Keyboard shortcuts in apps](#).

Narrator keyboard shortcuts

Press this key	To do this
Windows logo key + Ctrl + Enter	Start or exit Narrator
Caps lock + Esc	Exit Narrator
Windows logo key + Ctrl + N	Open Narrator settings
Caps lock + 1	Turn on input learning
Caps lock + M	Start reading document
Ctrl	Stop reading
Caps lock + Spacebar	Start or exit scan mode
Caps lock + Right arrow	Move to next item
Caps lock + Left arrow	Move to previous item
Caps lock + Up or Down arrow	Change view
Caps lock + F1	Show Narrator commands list
Caps lock + F2	Show commands for current item
Caps lock + Enter	Do primary action
Caps lock + Shift + Enter	Open search mode
Caps lock + A	Change verbosity mode

Caps lock + Ctrl + Plus (+)	Increase verbosity
Caps lock + Ctrl + Minus (-)	Decrease verbosity
Caps lock + Alt + Plus (+) or Minus (-)	Change punctuation mode
Caps lock + Z	Lock the Narrator key (Caps Lock) so you don't have to press it for every keyboard shortcut
Caps lock + X	Have Narrator ignore the next keyboard shortcut you use
Caps lock + F12	Turn keystroke reading off or on
Caps lock + Shift + F12	Turn on developer mode
Caps lock + V	Repeat phrase
Caps lock + Page up or Page down	Increase or decrease voice volume
Caps lock + Plus (+) or Minus (-)	Increase or decrease voice speed
Caps lock + D	Read item
Caps lock + Shift + D	Describe an image using an online service
Caps lock + F or Caps lock + Shift + F	Read next or previous group of formatting info
Caps lock + S	Read item spelled out
Caps lock + W	Read window
Caps lock + R	Start reading
Caps lock + Num lock	Turn mouse mode on or off
Caps lock + Q	Move to last item in the containing area
Caps lock + G	Move Narrator cursor to system cursor
Caps lock + T	Read current window title
Caps lock + tilde (~)	Set focus to item
Caps lock + Backspace	Go back one item
Caps lock + Insert	Jump to linked item

Caps lock + F10	Read current row header
Caps lock + F9	Read current column header
Caps lock + F8	Read current row
Caps lock + F7	Read current column
Caps lock + F5	Read current row and column location
Caps lock + F6	Jump to table cell
Caps lock + Shift + F6	Jump to cell contents
Caps lock + F3	Jump to next cell in current row
Caps lock + Shift + F3	Jump to previous cell in current row
Caps lock + F4	Jump to next cell in current column
Caps lock + Shift + F4	Jump to previous cell in current column
Caps lock + Close square bracket (])	Read text from start to cursor
Caps lock + zero (0)	Get advanced info about text
Caps lock + H	Read document
Caps lock + Ctrl + U	Read current page
Caps lock + U	Read next page
Caps lock + Shift + U	Read previous page
Caps lock + Ctrl + I	Read current paragraph
Caps lock + I	Read next paragraph
Caps lock + Shift + I	Read previous paragraph
Caps lock + Ctrl + O	Read current line
Caps lock + O	Read next line
Caps lock + Shift + O	Read previous line
Caps lock + Ctrl + P	Read current word
Caps lock + P	Read next word
Caps lock + Shift + P	Read previous word

Caps lock + Ctrl + Open square bracket ([])	Read current character
Caps lock + Open square bracket ([])	Read next character
Caps lock + Shift + Open square bracket ([])	Read previous character
Caps lock + Y	Move to beginning of text
Caps lock + B	Move to end of text
Caps lock + J	Jump to next heading
Caps lock + Shift + J	Jump to previous heading
Caps lock + K	Jump to next table
Caps lock + Shift + K	Jump to previous table
Caps lock + L	Jump to next link
Caps lock + Shift + L	Jump to previous link
Caps lock + C	Read current date and time
Press Caps lock twice in quick succession	Turn Caps lock on or off
Caps lock + E	Give feedback
Caps lock + Ctrl + Up arrow	Go to parent (only when Structural Navigation is provided by the app)
Caps lock + Ctrl + Right arrow	Go to next sibling (only when Structural Navigation is provided by the app)
Caps lock + Ctrl + Left arrow	Go to previous sibling (only when Structural Navigation is provided by the app)
Caps lock + Ctrl + Down arrow	Go to first child (only when Structural Navigation is provided by the app)
Caps lock + N	Move to main landmark
Caps lock + Forward slash (/)	Read context
Caps lock + Ctrl + Forward slash (/)	Change whether context is read before or after the current item

Caps lock + Alt + Forward slash (/)	Change how much context is read
Caps lock + Home	Move to the first item in a window
Caps lock + End	Move to the last item in a window

Scan mode keyboard commands

To turn scan mode on and off, press **Caps lock** + **Spacebar**. For a full list of scan mode keyboard shortcuts, see [Chapter 3: Using Scan Mode](#).

Narrator touch gestures

Use this gesture	To do this
Touch or drag a single finger	Read what's under your finger
Double-tap or hold with one finger and then tap anywhere on the screen with a second finger	Activate primary action
Triple-tap or hold with one finger and then double-tap anywhere on the screen with a second finger	Activate secondary action
Hold with one finger and then tap anywhere on the screen with two fingers	Start dragging or extra key options
Flick left or right with one finger	Move to next or previous item
Flick up or down with one finger	Change view
Tap once with two fingers	Stop Narrator from reading
Tap once with three fingers	Change verbosity mode
Tap once with four fingers	Show Narrator commands for the current item
Double-tap with two fingers	Show context menu
Double-tap with three fingers	Read text attributes
Double-tap with four fingers	Open search mode
Tap three times with four fingers	Show all Narrator commands
Swipe left, right, up, or down with two fingers	Scroll
Swipe left or right with three fingers	Tab forward or backward

Swipe up with three fingers	Read current window
Swipe down with three fingers	Start reading on explorable text
Swipe up or down with four fingers	Turn semantic zoom on or off where supported
Swipe left or right with four fingers	Move Narrator cursor to beginning or end of unit

Appendix C: TTS voices

The following text-to-speech (TTS) voices are available in the Windows 10 April 2018 Update.

Add a TTS voice to your PC

To use one of these voices, add it to your PC:

1. Select the **Start** button, then select **Settings**, choose **Time & language**, and then select **Region & language**.
2. Select **Add a language** and search for the language you want to add. Choose the language you want to add from the list of search results. When you choose a language, you'll be taken back to the Region & language settings page.
3. Select the language you just added, and select **Options**.
4. Under **Download language pack**, select **Download**. Then, under **Speech**, select **Download**.

When both downloads are done, go to **Settings**, choose **Ease of Access**, and select **Narrator**. Under Choose a voice, select the voice you want to use.

TTS voices in the Windows 10 April 2018 Update

Language, country, or region	Male voice name	Female voice name
Arabic	Not applicable	Hoda
Arabic (Saudi Arabia)	Naayf	Not applicable
Bulgarian	Ivan	Not applicable
Catalan	Not applicable	Herena
Chinese (Simplified)	Kangkang	Huihui, Yaoyao
Cantonese (Traditional, Hong Kong SAR)	Danny	Tracy
Chinese (Traditional, Taiwan)	Zhiwei	Yating, Hanhan
Croatian	Matej	Not applicable
Czech (Czech Republic)	Vit	Not applicable
Danish	Not applicable	Helle
Dutch	Frank	Not applicable
English (Australia)	James	Catherine
English (Canada)	Richard	Linda

English (Great Britain)	George	Hazel, Susan
English (India)	Ravi	Heera
English (Ireland)	Shaun	Not applicable
English (United States)	David, Mark	Zira
Finnish	Not applicable	Heidi
Flemish (Belgian Dutch)	Bart	Not applicable
French (Canada)	Claude	Caroline
French (France)	Paul	Hortence, Julie
German (Germany)	Stefan	Hedda, Katja
German (Switzerland)	Karsten	Not applicable
Greek	Stefanos	Not applicable
Hebrew	Asaf	Not applicable
Hindi (India)	Hemant	Kalpana
Hungarian (Hungary)	Szabolcs	Not applicable
Indonesian (Indonesia)	Andika	Not applicable
Italian	Cosimo	Elsa
Japanese	Ichiro	Ayumi, Haruka
Malay	Rizwan	Not applicable
Norwegian	Jon	Not applicable
Polish (Poland)	Adam	Paulina
Portuguese (Brazil)	Daniel	Maria
Portuguese (Portugal)	Not applicable	Helia
Romanian (Romania)	Andrei	Not applicable
Russian (Russia)	Pavel	Irina
Slovak (Slovakia)	Filip	Not applicable
Slovenian	Lado	Not applicable
Korean	Not applicable	Heami
Spanish (Spain)	Pablo	Helena, Laura
Spanish (Mexico)	Raul	Sabina

Swedish	Bengt	Not applicable
Tamil	Valluvar	Not applicable
Thai (Thailand)	Pattara	Not applicable
Turkish	Tolga	Not applicable
Vietnamese	An	Not applicable

Appendix D: Supported braille displays

Narrator supports the following braille displays. To learn more about braille support in Narrator, see [Chapter 7: Using Narrator with braille](#).

Choose a link in the table below to see supported commands for supported displays.

Manufacturer	Supported displays
Albatross	<ul style="list-style-type: none">• All models
Alva	<ul style="list-style-type: none">• ABT [3nn] and Delphi [4nn] (large)• ABT [3nn] and Delphi [4nn] (small)• BC640, BC624• Optelec Easylink 12 Touch• Satellite [5nn] (large)• Satellite [5nn] (small)• Voyager Protocol Converter
B2G	<ul style="list-style-type: none">• All models
Baum	<ul style="list-style-type: none">• All models (default)• All models (with Vario keys)• VarioConnect / HWG BrailleConnect• Conny• DM 80 Plus• Inka• Orbit Reader• Vario Pro• Pronto!• PocketVario• APH Refreshabraille• SuperVario / HWG Brailiant• VarioUltra

	<ul style="list-style-type: none"> • Vario 40 • Vario 80
BrailleLite	<ul style="list-style-type: none"> • BrailleLite 18 • BrailleLite 40, M20, and M40
BrailleMemo	<ul style="list-style-type: none"> • BrailleMemo Pocket • BrailleMemo Smart
BrailleNote	<ul style="list-style-type: none"> • All models
Cebra	<ul style="list-style-type: none"> • All models
CombiBraille	<ul style="list-style-type: none"> • All models
EcoBraille	<ul style="list-style-type: none"> • All models
EuroBraille	<ul style="list-style-type: none"> • AzerBraille, Clio, NoteBraille, PupiBraille, Scriba • Esys 80 • Esys 40, 64 • Esys 12, 24 • Esytime • Iris
Freedom Scientific	<ul style="list-style-type: none"> • Focus 1 and Focus 2 40 • Focus 2 80 • Focus Blue • PAC Mate
HandyTech	<ul style="list-style-type: none"> • Active Braille 40 • Actilino • Active Star 40 • Basic Braille

	<ul style="list-style-type: none"> • Bookworm • Brailino • Braille Star 40 • Braille Star 80 • Connect Braille 40 • Easy Braille • Modular Connect 88 • Modular • Modular Evolution 64 • Modular Evolution 88 • Braille Wave
Hedo	<ul style="list-style-type: none"> • MobiLine • ProfiLine
HIMS	<ul style="list-style-type: none"> • Smart Beetle • Braille Edge • Braille Sense with Two Scroll Keys • Braille Sense with QWERTY keyboard • Braille Sense with Four Scroll Keys • SyncBraille
HumanWare	<ul style="list-style-type: none"> • Brailiant BI (32, 40) • Brailiant B 80
Iris	<ul style="list-style-type: none"> • With braille keyboard • With PC keyboard
MDV	<ul style="list-style-type: none"> • Unrecognized Model (all keys defined) • Models with Function Keys • Models with Function Keys and Status Cells • Models with a Keyboard

Metec	<ul style="list-style-type: none"> • All models • BD I with 3 Keys and Status Cells • BD I with 6 Keys • BD I with 6 Keys and Status Cells
MiniBraille	<ul style="list-style-type: none"> • All models
MultiBraille	<ul style="list-style-type: none"> • All models
NinePoint	<ul style="list-style-type: none"> • All models
Papenmeier	<ul style="list-style-type: none"> • BrailleX 2D Lite (plus) • BrailleX 2D Screen Soft • BrailleX Compact 486 • BrailleX Compact/Tiny • BrailleX EL2D-40 • BrailleX EL2D-66 • BrailleX EL2D-80 • BrailleX EL2D-80s • BrailleX EL40c • BrailleX EL40 P • BrailleX EL40s • BrailleX EL60c • BrailleX EL66s • BrailleX EL70s • BrailleX EL80c • BrailleX EL80-II • BrailleX EL 80 • BrailleX EL80s • BrailleX Elba 20 • BrailleX Elba 32

	<ul style="list-style-type: none">• BrailleX Elba (Trio 20)• BrailleX Elba (Trio 32)• BrailleX IB 80 CR Soft• BrailleX Live• BrailleX Trio
Pegasus	<ul style="list-style-type: none">• All models
Seika	<ul style="list-style-type: none">• Braille Displays• Note Takers
TSI	<ul style="list-style-type: none">• Navigator 20• Navigator 40• Navigator 80• Power Braille 40• Power Braille 65• Power Braille 80
Voyager	<ul style="list-style-type: none">• All models• Braille Pen 2