# Appendix A. Commands and Gestures

(Taken from https://www.apple.com/voiceover/info/guide/\_1131.html)

This appendix lists VoiceOver commands and gestures, organized into categories.

## General commands

Use these commands to turn VoiceOver on and off, get help, change basic settings, and enable and disable Commanders.

Note:If your keyboard has an Fn key, press the Fn key when you press a function key.

|  |  |
| --- | --- |
| Action | Command |
| Turn VoiceOver on or off | Command-F5 |
| Lock and unlock the VO (Control and Option) keys | VO-; |
| Open VoiceOver Utility  | VO-F8 |
| Open the VoiceOver Help menu | VO-H |
| Open the VoiceOver Quick Start | VO-Command-F8 |
| Open VoiceOver online help  | VO-? |
| Start keyboard help | VO-K |
| Hear a description of the item in the VoiceOver cursor | VO-Shift-N |
| Open the Commands menu  | VO-H-H |
| Open the Find menu | VO-Shift-F |
| Close a menu or rotor, stop an action, or exit a mode | Escape  |
| Tell VoiceOver to ignore the next key combination you press | VO-Tab |
| Open the verbosity rotor | VO-V, Then press the Left Arrow or Right Arrow key to choose the setting. Use the Up Arrow and Down Arrow keys to change the level for the setting.  |
| Magnify the item in the VoiceOver cursor  | VO-} |
| Shrink the item in the VoiceOver cursor | VO-{ |
| Temporarily hide or show the VoiceOver cursor and the caption or braille panels | VO-F11 |
| Hide or show the caption panel only | VO-Command-F10 |
| Resize or move the caption panel | VO-Shift-F10, Press again to cycle through these actions. Then use the arrow keys to resize the panel or move it. Press the Shift key with the arrow keys to move in smaller increments. |
| Hide or show the braille panel only | VO-Command-F9 |
| Resize or move the braille panel | VO-Shift-F9, Press again to cycle through these actions. Then use the arrow keys to resize the panel or move it. Press the Shift key with the arrow keys to move in smaller increments. |
| Tile visuals (dim the screen, highlight the caption or braille panel, and show the item in the VoiceOver cursor in the center of the screen). | VO-F10, Press again to return to the normal view. |
| Enable or disable the NumPad Commander  | VO-Clear |
| Enable or disable the Keyboard Commander | VO-Shift-K |
| Enable or disable the Trackpad Commander | Press the VO (Control-Option) keys and rotate two fingers on the trackpad clockwise (enable) or counterclockwise (disable) |
| Turn the screen black (screen curtain) | VO-Shift-F11  |
| Cycle through speech settings (rate, pitch, volume, intonation, voice)  | VO-Command-Right Arrow or Left Arrow |
| Change the current speech setting (rate, pitch, volume, intonation, voice)  | VO-Command-Up Arrow or Down Arrow |
| Press and release mouse button | VO-Shift-Space bar |

## Interaction commands

Use these commands to interact with items on the screen.

Note:If your keyboard has an Fn key, press the Fn key when you press a function key.

|  |  |
| --- | --- |
| Action  | Command |
| Interact with an item | VO-Shift-Down Arrow |
| Stop interacting with an item | VO-Shift-Up Arrow |
| Perform the default action for the item in the VoiceOver cursor | VO-Space bar |
| Select a menu or list item | VO-Return |
| Select multiple items | VO-Command-Space bar (Turn off cursor tracking to use this command.) |
| Perform a sticky mouse down or mouse up (for use when dragging an item from one location to drop in another location) | VO-Command-Shift-Space bar |
| Click the item under the mouse cursor  | VO-Shift-Space bar (Press once for a single mouse click and two times to double-click.) |
| Open or close a disclosure triangle | VO-\ |
| Read a row in a table | VO-R |
| Read a column in a table | VO-C-C  |
| Read the column header in a table | VO-C |
| Read row and column numbers in a table | VO-Shift-T  |
| Sort a column in a table | VO-| |
| Interact with scroll bars | VO-Shift-S, Then use the arrow keys to scroll up or down or side to side. Use Page Up and Page Down to scroll vertically one page at a time. Use Shift-Page Up and Shift-Page Down to scroll horizontally one page at a time. |
| Resize a window or an object | VO-~ |
| Move a window or an object | VO-`, Then use the arrow keys to move the window. Use Shift with the arrow keys to move in smaller increments. |
| Stop scrolling or resizing | Escape |

## Navigation commands

Use these commands to move around the screen, move inside windows and webpages, and control cursor tracking.

Note:If your keyboard has an Fn key, press the Fn key when you press a function key.

|  |  |
| --- | --- |
| Action | Command |
| Move up | VO-Up Arrow |
| Move down  | VO-Down Arrow |
| Move to previous | VO-Left Arrow |
| Move to next | VO-Right Arrow |
| Move to the top of the visible area (such as a window or text area) where the VoiceOver cursor is located | VO-Home (On some keyboards, press VO-Fn-Left Arrow.) |
| Move to the bottom of the visible area (such as a window or text area) where the VoiceOver cursor is located | VO-End (On some keyboards, press VO-Fn-Right Arrow.) |
| Move to the top of the area (such as a window or text area) where the VoiceOver cursor is located, scrolling if necessary  | VO-Shift-Home (On some keyboards, press VO-Shift-Fn-Left Arrow.) |
| Move to the bottom of the area (such as a window or text area) where the VoiceOver cursor is located, scrolling if necessary | VO-Shift-End (On some keyboards, press VO-Shift-Fn-Right Arrow.) |
| Move to the top of a window, the first item in the Dock, or the first item on your desktop, depending on your location  | VO-Command-Home (On some keyboards, press VO-Command-Fn-Left Arrow.) |
| Move to the lower-right corner of a window, the last item in the Dock, or the last item on your desktop, depending on your location | VO-Command-End (On some keyboards, press VO-Command-Fn-Right Arrow.) |
| Move to the front the window where the VoiceOver cursor is located and make it active | VO-Shift-F2 |
| Close the window where the VoiceOver cursor is located | VO-Command-F2 |
| Open the Item Chooser | VO-I |
| Move to the Dock | VO-D |
| Move to the desktop | VO-Shift-D |
| Move to the menu bar | VO-M |
| Move to the first status menu in the menu bar  | VO-M-M |
| Open the Spotlight menu  | VO-M-M-M |
| Open a shortcut menu | VO-Shift-M |
| Jump to a linked item (for example, from a Mail message in the Inbox to its message text) | VO-J |
| Temporarily disable or enable the cursor tracking options you selected in VoiceOver Utility (The command doesn’t change the settings in VoiceOver Utility.) | VO-Shift-F3 |
| Move VoiceOver cursor to keyboard focus  | VO-Shift-F4  |
| Move keyboard focus to VoiceOver cursor | VO-Command-F4 |
| Move VoiceOver cursor to mouse cursor | VO-Shift-F5  |
| Move mouse cursor to VoiceOver cursor | VO-Command-F5 |
| Jump command (used with the next four commands) | VO-Shift-J |
| Jump to the edge of an area  | VO-Shift-arrow keys |
| Jump to the visible edge of an area | VO-arrow keys |
| Jump to the area that precedes a horizontal or vertical splitter | VO-[ |
| Jump to the area that follows a horizontal or vertical splitter | VO-] |
| Find text  | VO-F |
| While finding text, cycle through search item history | VO-Up Arrow or Down Arrow |
| Navigate in given direction, wrapping when necessary | VO-Command-Shift-arrow keys |
| Set or remove a hot spot  | VO-Shift-[number key] |
| Open the Hot Spot Chooser | VO-[number key]-[number key] |
| Jump to a hot spot | VO-[number key] |
| Hear a description of a hot spot  | VO-Command-[number key] |
| Monitor a hot spot | VO-Command-Shift-[number key] |
| Jump back to a parent folder | VO-Command-\ |

## Orientation commands

Use these commands to hear where the cursors are located and what is open on the screen.

Note:If your keyboard has an Fn key, press the Fn key when you press a function key.

|  |  |
| --- | --- |
| Action | Command |
| Hear the application summary | VO-F1 |
| Open the Application Chooser  | VO-F1-F1 |
| Hear the window summary | VO-F2 |
| Open the Window Chooser  | VO-F2-F2 |
| Describe the item in the VoiceOver cursor | VO-F3 |
| Describe the size of the item in the VoiceOver cursor  | VO-Command-F3 |
| Describe the position of the item in the VoiceOver cursor  | VO-Command-F3-F3 |
| Describe the item that has the keyboard focus | VO-F4 |
| Describe the location of the insertion point (from upper-left corner of screen) | VO-F4-F4 |
| Describe the item under the mouse cursor | VO-F5 |
| Describe the location of the mouse in x, y coordinates (from upper-left corner of screen) | VO-F5-F5 |
| Describe the location of the mouse (from upper-left corner of window) | VO-F5-F5-F5 |
| Describe the selected item | VO-F6 |
| Read everything in the VoiceOver cursor | VO-A |
| Read everything visible in the window or the Dock, or on your desktop, depending on your location  | VO-Shift-W |
| Repeat the last spoken phrase | VO-Z |
| Copy the last spoken phrase to the Clipboard (also called the “Pasteboard”) | VO-Shift-C |
| Save the last spoken phrase and the crash log to a file on the desktop for troubleshooting | VO-Shift-Z |

## Search commands

Use these commands to search for text attributes, graphics, controls, and other items in text documents and webpages.

Note:If your keyboard has an Fn key, press the Fn key when you press a function key.

|  |  |
| --- | --- |
| Action | Command |
| Find | VO-F |
| Find the next searched text  | VO-G |
| Find the previous searched text  | VO-Shift-G |
| Find the next list | VO-Command-X |
| Find the previous list  | VO-Command-Shift-X |
| Find the next bold text  | VO-Command-B |
| Find the previous bold text  | VO-Command-Shift-B |
| Find the next style change  | VO-Command-C  |
| Find the previous style change  | VO-Command-Shift-C |
| Find the next italic text  | VO-Command-I |
| Find the previous italic text  | VO-Command-Shift-I |
| Find the next color change  | VO-Command-K |
| Find the previous color change  | VO-Command-Shift-K |
| Find the next font change  | VO-Command-O |
| Find the previous font change  | VO-Command-Shift-O |
| Find the next table  | VO-Command-T |
| Find the previous table  | VO-Command-Shift-T |
| Find the next underlined text  | VO-Command-U |
| Find the previous underlined text  | VO-Command-Shift-U |
| Find the next control  | VO-Command-J |
| Find the previous control  | VO-Command-Shift-J |
| Find the next different item  | VO-Command-D |
| Find the previous different item  | VO-Command-Shift-D |
| Find the next item that’s the same type as the current item  | VO-Command-S |
| Find the previous item that’s the same type as the current item  | VO-Command-Shift-S |
| Find the next graphic  | VO-Command-G |
| Find the previous graphic  | VO-Command-Shift-G |
| Find the next heading  | VO-Command-H |
| Find the previous heading  | VO-Command-Shift-H |
| Find the next link  | VO-Command-L |
| Find the previous link  | VO-Command-Shift-L |
| Find the next heading of the same level  | VO-Command-M |
| Find the previous heading of the same level  | VO-Command-Shift-M |
| Find the next plain text  | VO-Command-P |
| Find the previous plain text  | VO-Command-Shift-P |
| Find the next visited link  | VO-Command-V |
| Find the previous visited link  | VO-Command-Shift-V |
| Find the next misspelled word  | VO-Command-E |
| Find the previous misspelled word  | VO-Command-Shift-E |

## Text commands

Use these commands to read and edit text and tables. Before you can use most of these commands, you must interact with text in a text area.

Note:If your keyboard has an Fn key, press the Fn key when you press a function key.

|  |  |
| --- | --- |
| Action | Command |
| Read all text from the VoiceOver cursor to the end of the text | VO-A |
| Select all text in the VoiceOver cursor | VO-Shift-A |
| Start and stop text selection in a text field (text selection tracking must be on) | VO-Return |
| Speak text attributes | VO-T |
| Add a hot spot in text | VO-Shift-1 |
| Jump to a hot spot in text | VO-1 |
| Read paragraph in VoiceOver cursor | VO-P |
| Read next paragraph | VO-Shift-Page Down |
| Read previous paragraph | VO-Shift-Page Up  |
| Read sentence in VoiceOver cursor | VO-S |
| Read next sentence  | VO-Command-Page Down |
| Read previous sentence | VO-Command-Page Up |
| Read line in VoiceOver cursor | VO-L |
| Read next line | VO-Down Arrow |
| Read previous line | VO-Up Arrow  |
| Read word in VoiceOver cursor | VO-W (Press twice to hear the word spelled; press a third time to hear the word spelled phonetically.) |
| Read next word | VO-Right Arrow |
| Read previous word | VO-Left Arrow |
| Read character in VoiceOver cursor | VO-C (Press twice to hear the phonetic character.) |
| Read next character | VO-Shift-Right Arrow |
| Read previous character | VO-Shift-Left Arrow |
| Move to first visible word | VO-Home (On a portable computer, press VO-Fn-Left Arrow.) |
| Move to last visible word | VO-End (On a portable computer, press VO-Fn-Right Arrow.) |
| Move to beginning of text, scrolling if necessary | VO-Shift-Home (On a portable computer, press VO-Shift-Fn-Left Arrow.) |
| Move to end of text, scrolling if necessary  | VO-Shift-End (On a portable computer, press VO-Shift-Fn-Right Arrow.) |
| Add new tab stop (in TextEdit only when the VoiceOver cursor is on a tab stop in the ruler) | VO-Space bar |
| Delete the current tab stop (in TextEdit only when the VoiceOver cursor is on a tab stop in the ruler) | VO-Delete |
| Interact with tab stop (in TextEdit only when the VoiceOver cursor is on a tab stop in the ruler) | VO-Shift-Down Arrow, Then use the Left and Right Arrow key to move the stop. |
| Reads the current word and character in the VoiceOver cursor | VO-F3 |
| Reads the total number of lines and the number of visible lines in a document  | VO-F3-F3 |

## Web commands

Use these commands to navigate and interact with webpages.

Note:If your keyboard has an Fn key, press the Fn key when you press a function key.

|  |  |
| --- | --- |
| Action | Command |
| Move to the next column | VO-Command-Y |
| Move to the previous column | VO-Command-Shift-Y |
| Move to the next frame | VO-Command-F |
| Move to the previous frame | VO-Command-Shift-F |
| Move to the next auto web spot | VO-Command-N |
| Move to the previous auto web spot | VO-Command-Shift-N |
| Move to the next web spot | VO-Command-] |
| Move to the previous web spot | VO-Command-[ |
| Open the Web Item rotor  | VO-U |
| Read from the current location on a webpage to the end of the page  | VO-A |
| Read from the beginning of a webpage to the current location | VO-B |
| Read a link address (URL) | VO-Shift-U |
| Read the next sentence | VO-Command-Page Down |
| Read the previous sentence | VO-Command-Page Up |
| Read webpage statistics | VO-Shift-I |
| Remove a web spot | VO-Command-Shift-{ |
| Set a web spot | VO-Command-Shift-} |
| Set the sweet spot | VO-Command-Shift-}-} |
| Turn the grouping of items within a table on or off | VO-= |

## VoiceOver standard gestures

If you’re using a Multi-Touch trackpad, you can use VoiceOver gestures. VoiceOver provides a set of standard gestures for navigating and interacting with items on the screen. You can’t modify this set of gestures.

Note:Gestures that don’t mention a specific number of fingers are single-finger gestures.

### General

|  |  |
| --- | --- |
| Action | Gesture |
| Enable the Trackpad Commander and VoiceOver gestures | VO-Two-finger rotate clockwise |
| Disable the Trackpad Commander and VoiceOver gestures | VO-Two-finger rotate counterclockwise |
| Turn the screen curtain on or off  | Three-finger triple-tap |
| Mute or unmute VoiceOver | Three-finger double-tap |

### Navigation

|  |  |
| --- | --- |
| Action | Gesture |
| Force the VoiceOver cursor into a horizontal or vertical line when you drag a finger across the trackpad  | Hold down the Shift key and drag a finger horizontally or vertically |
| Move the VoiceOver cursor to the next item | Flick right |
| Move the VoiceOver cursor to the previous item | Flick left |
| Move content or the scroll bar (depending on the Trackpad Commander setting)  | Three-finger flick in any direction |
| Go to the Dock (This gesture moves the VoiceOver cursor to the Dock wherever it’s positioned on the screen) | Two-finger double-tap near the bottom of the trackpad |
| Go to the menu bar | Two-finger double-tap near the top of the trackpad |
| Open the Application Chooser  | Two-finger double-tap on the left side of the trackpad |
| Open the Window Chooser  | Two-finger double-tap on the right side of the trackpad |
| Jump to another area of the current application | Press Control while touching a finger on the trackpad |

### Interaction

|  |  |
| --- | --- |
| Action | Gesture |
| Speak the item in the VoiceOver cursor or, if there isn’t an item, play a sound effect to indicate a blank area | Touch (includes tap or dragging) |
| Select an item | Double-tap anywhere on the trackpad |
| You can also split-tap (touch one finger and then tap with a second finger on the trackpad) | Start interacting with the item in the VoiceOver cursor |
| Two-finger flick right | Stop interacting with the item in the VoiceOver cursor |
| Two-finger flick left | Scroll one page up or down  |
| Three-finger flick up or down | Escape (close a menu without making a selection) |
| Two-finger scrub back and forth | Increase or decrease the value of a slider, splitter, stepper, or other control  |
| Flick up (increase) or flick down (decrease) |  |

### Text

|  |  |
| --- | --- |
| Action | Gesture |
| Read the current page, starting at the top  | Two-finger flick up |
| Read from the VoiceOver cursor to the end of the current page | Two-finger flick down |
| Pause or resume speaking | Two-finger tap |
| Describe what’s in the VoiceOver cursor | Three-finger tap |
| Change how VoiceOver reads text (by word, line, sentence, or paragraph) | Press the Command key while touching a finger on the trackpad |

### Rotor

Action

Gesture

Change the rotor settings

Two-finger rotate

Move to the previous item based on the rotor setting

Flick up

Move to the next item based on the rotor setting

Flick down

To customize other gestures by assigning VoiceOver commands to them, use the Trackpad Commander.

[Assigning VoiceOver commands to gestures](https://www.apple.com/voiceover/info/guide/_1137.html#vo27986)

If you need a reminder about what a gesture does, press VO-K to start keyboard help, and then use the gesture on the trackpad and listen to the description.

[Learning about keys, keyboard shortcuts, and gestures](https://www.apple.com/voiceover/info/guide/_1124.html#mchlp2683)

## New and changed VoiceOver commands in Mac OS X 10.6

VoiceOver in Mac OS X introduces several new and changed commands.

Note:If your keyboard has an Fn key, press the Fn key when you press a function key.

### New

|  |  |  |
| --- | --- | --- |
| Action | Command | Turn the Keyboard Commander on or off |
| VO-Shift-K | Speak the location of the insertion point | VO-F4-F4 |
| Turn on or off the grouping of items within a table | VO-= | Move the VoiceOver cursor to the next column (only when items within tables are not being grouped) |
| VO-Command-Y | Move the VoiceOver cursor to the previous column (only when items within tables are not being grouped) | VO-Command-Shift-Y |
| Next auto web spot | VO-Command-N | Previous auto web spot |
| VO-Command-Shift-N | Next web spot  | VO-Command-] |
| Previous web spot  | VO-Command-[ | Delete web spot  |
| VO-Command-Shift-{ | Set web spot  | VO-Command-Shift-} |
| Set sweet spot  | VO-Command-Shift-}-} | Next misspelled word  |
| VO-Command-E | Previous misspelled word  | VO-Command-Shift-E |
| Next sentence  | VO-Command-Page Down | Previous sentence (in documents and webpages)  |
| VO-Command-Page Up | Next page (documents only) | VO-Page Down |
| Previous page (documents only)  | VO-Page Up | Size of item in VoiceOver cursor  |
| VO-Command-F3 | Position of item in VoiceOver cursor  | VO-Command-F3-F3 |
| Read webpage statistics  | VO-Shift-I | Read an element’s help tag  |
| VO-Shift-H | Read an element’s VoiceOver hint  | VO-Shift-N |
| Open Web Item rotor  | VO-U | Open Hot Spot Chooser  |
| VO-[number key]-[number key] | Move a UI element  | VO-Command-` |
| Open resize UI element menu  | VO-Command-~ | Changed |
| Open VoiceOver Online Help  | VO-? | Open Commands Help menu  |
| VO-H-H |  |  |

VoiceOver adds support for gestures when using a Multi-Touch trackpad. You can use standard VoiceOver gestures, which you can’t change, and other gestures which you can customize by assigning VoiceOver commands to them.