Mac Built-in Accessibility (10.7 - Lion) - Quick Start Guide

Overview
The Mac operating system has many helpful features to help users with a wide range of abilities access their computer. This Quickstart guide is divided into accessibility features for four areas: vision, hearing, physical and motor skills, and literacy and learning.

To Use

How it is organized:
Many built-in accessibility features are accessed through Apple’s Universal Access. To locate Universal Access, go to Apple → System Preferences → Universal Access.

Accessibility features for vision

VoiceOver: VoiceOver is a built-in screen reader that allows users who are blind or have low vision to control their computer. VoiceOver can be turned on and off from the Universal Access pane or by pressing the hotkey Command+Function+F5.
VoiceOver is a powerful screen reading tool with more options than can be presented in this guide. For an in-depth VoiceOver tutorial, turn on VoiceOver and choose “Learn VoiceOver” from the window.

**All VoiceOver functions are accessed by first holding down the “control” and “option” buttons together (referred to as the VO keys) and then pressing another key.** When VoiceOver is activated, the user can navigate through the computer’s windows and menus by holding down the VO keys and pressing the up, down, left, or right arrow. VoiceOver will speak aloud a description of the highlighted item. To select an item when highlighted in VoiceOver, press the space bar.

**Changing the voice in VoiceOver:** To change the voice in VoiceOver, hold down the VO keys (control + option) as well as the command key. While holding these three keys down, press the right arrow key. Using the arrow keys, the user can adjust the voice, rate, pitch, volume, and intonation.

Additional VoiceOver functions and more detailed instructions on the use of various VoiceOver functions can be accessed by turning on VoiceOver and selecting “Learn VoiceOver”. The tutorial takes about a half an hour to complete.

**Zoom:** The zoom function allows the user to magnify the screen from 1 to 20 times, allowing users with low vision to more easily see items on the screen.
Some of the options available with the zoom function include “zoom in window” (rather than the entire screen), adjusting the maximum and minimum zoom, and adjusting the way in which the screen image moves when the cursor is moved. Choose “Options...” in the Zoom window to make changes to Zoom.

Display: From the “Seeing” menu in Universal Access the user can adjust the display to different settings to accommodate a variety of visual preferences, including grayscale, black on white/white on black, and increased contrast.
Cursor Magnification: The user can increase the size of the cursor by selecting “Mouse & Trackpad” in the Universal Access pane and then moving the slider bar located at the bottom of the window.

Accessibility features for vision not accessed through Universal Access:

Smart Zoom: Using the Safari web browser and the computer’s trackpad (on a laptop computer) the user can double tap the track pad with two fingers to zoom in 2X on any webpage. Double tap again with two fingers to return to normal view.

Icon size and spacing: Click anywhere on the desktop and then press Command + J to change the size and spacing of desktop icons as well as enlarge the text below the icons. Alternatively, choose View → Show view options.
**Text-to-speech:** From the Systems Preferences menu, select “Speech”, then select “Text to Speech”. From this pane, the user can change the Text to Speech hot key, the speaking rate, and the voice. The default key to read aloud any highlighted text is “Option+Esc”.

**Speech recognition:** Also available from the “Speech” pane is speech recognition. When activated, the user can control a variety of computer functions by holding down the escape key and speaking the command aloud. A list of possible commands is available by clicking the down arrow on the round microphone icon and selecting “Open Speech Commands window”

**Safari minimum font size:** Within Safari, the default web browser of Mac OS Lion, the user can adjust the minimum size font displayed when browsing. The minimum size font can be set from 9 to 24 points. To set a minimum font size, select Safari ⇒ Preferences ⇒ Advanced.
Accessibility features for hearing

**Screen flash**: When the computer plays an alert sound (for example an when a new email arrives) the user can choose to have the screen flash. To turn on screen flash, open the Universal Access pane and choose “Hearing”. Check the “Flash the screen when an alert sound occurs” box.

**Mono audio**: For those who are deaf or hard of hearing in one ear, choosing mono audio will ensure no sounds are missed because they are played only in the right or left channel. To turn on Mono Audio, open the Universal Access pane and choose “Hearing”. Check the “Play stereo as mono” box.

![Universal Access settings](image)

Accessibility features for physical and motor skills

**Slow keys**: Turning on slow keys will change the sensitivity of the keyboard to filter out unintended multiple keystrokes. The delay is adjustable, and there is the option to have a sound played when a key is entered. Slow Keys is accessed through the “Keyboard” pane of “Universal Access”.

**Sticky keys**: When Sticky Keys are active, the user can press modifier keys (command, option, control, shift) one by one and the computer will respond as if the keys were all pressed simultaneously. When activated, modifier keys are displayed in the upper right corner of the screen when pressed. Sticky Keys is accessed through the “Keyboard” pane of “Universal Access”.

![Universal Access settings](image)
Mouse keys: For users who have difficulty using a mouse or trackpad, the mouse can be controlled using the keyboard. Mouse Keys is accessed through the “Mouse & Trackpad” pane of “Universal Access”. The keys used to control the mouse will differ on a laptop and a desktop computer.

Custom keyboard shortcuts: Shortcut keys to many computer functions can be viewed and adjusted in the “keyboard” pane of system preferences.
**Adjustable trackpad sensitivity:** Through the “trackpad” pane of system preferences, the user can adjust the scrolling speed of the trackpad. Short video presentations demonstrate various one, two, or three finger gestures available.

**Onscreen keyboard:** Users who find it easier to use a pointing device than a keyboard can use the built-in onscreen keyboard. The onscreen keyboard is accessed through the Language & Text pane of system preferences. Within the Language & Text pane, select “Input Sources”, and check “Keyboard & Character Viewer”. An icon will appear in the menu bar (at the top right of the screen). To view the onscreen keyboard, select this icon and choose “Show Keyboard Viewer”.

**Automator:** For users who have trouble using a mouse or trackpad, “Automator” can perform complex, routine tasks. Using its “Watch me do” feature, you can record what you do on your computer, save it, and run the task again as often as you want. Automator is an application located in the “Applications” folder.
**Speech recognition:** See “Speech Recognition” under “Accessibility features for vision” on page 5 of this guide.

**Accessibility features for literacy and learning**

**Simple finder:** For users with cognitive and learning disabilities, the way a user interacts with the computer can be greatly simplified. Using Parental controls in System preferences, the number of applications a user can choose can be limited. The dock contains only three folders: applications, documents, and items to share. Items are opened with a single click rather than a double click. To turn on simple finder, choose System Preferences ⇒ Parental Controls and follow instructions to turn on Simple Finder.

**Spotlight:** Spotlight allows a user to quickly and easily search the contents of the computer for a key word or phrase, like a search engine for your computer. To use spotlight, click the magnifying glass icon in the upper right corner of the screen and enter a search word or phrase.

**Login items:** The user can set up the computer to begin running commonly used applications (such as Mail, iTunes, or Safari) automatically when the computer starts up. To set Login items, choose “Users & Groups” from System Preferences. Select “Login Items”, and add any applications to the list by clicking the + button.

**Built-in dictionary and thesaurus:** The built-in dictionary and thesaurus can be accessed as a “widget” by pressing F4 (default shortcut), or used “on the go” by “control-clicking” a word (in many applications) to view definition or access the thesaurus.

**Text to speech:** Within many applications (Mail, Safari, iChat, TextEdit, and more) the computer will read aloud selected text. To activate text to speech within a supported application, choose Edit ⇒ Speech ⇒ Start Speaking.
Other things to know about

Additional information can be accessed through Apple’s “Accessibility” website:
http://www.apple.com/accessibility/macosx

Program Manufacturer Contact Info

Website to locate the product: http://www.apple.com/accessibility/macosx

Cost of the product: Accessibility features come built into OS Lion. OS Lion costs 19.99 and is available through the Mac App Store.