

Universal Access - Tips and Tricks

SpICE Conference - Franklin Middle School

10/15/2011

Go to Apple - select System Preference

Select Universal Access



Click on Seeing Tab



Options Include:

Voice Over - speaks the text-
(Command button and F5 button turns it on and off)

Open VoiceOver Utility.....button for more options

Options to change verbosity, speech, navigation, how the web is read, sound, visuals, commanders(this changes the keys on the keyboard), braille(set up a braille device)

Zoom - allows you to zoom the screen in or out;

To ZOOM IN: press keys - option, command and +

To ZOOM OUT: press keys - option, command and -

Turn ZOOM on or off; press keys - option, command and 8

Under Options - further control the zoom option

How fast or slow it zooms in or out

How much magnification you need

Keyboard shortcuts when zoom is on = allows you to zoom past the max or min zoom settings

= option, command and = or - signs.

Check boxes include:

Show preview rectangle when zoomed out?? I don't know what this is; couldn't find it on my screen

Smooth images - want this one checked (press option, command and \ to turn smoothing on or off

Zoom follows the keyboard focus-would want this if you need to know where you are typing. It follows the keys as you type so they are visible on screen.

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Display - allows for different options on the display screen

Black on white

White on black

Use grayscale

Increase or decrease contrast

Slide the button over from normal to maximum contrast

Reduce contrast = hold control, option and command then press ,(comma)

Increase contrast = hold control, option and command then press . (period)

Do these several times to get to desired contrast

Click on Hearing Tab



Can make the screen flash when an alert sound occurs(such as an incoming message)

Click on Flash Screen to test what it looks like

Other ideas for Hearing

**Can display Closed Captioning in QuickTime and DVD player

**Can use GarageBand - To improve auditory comprehension with deaf and HOH(hard of hearing) students; create podcasts of conversational speech to learn inflection and how to differentiate one voice from another.

**Use iChat to chat in sign language

**Use Photo Booth to record a video message - using sign then email it to others

More info on these at: <http://www.apple.com/education/special-education/#hearing>

Click on Keyboard Tab

Turn Sticky Keys on or off -

Allows user to enter key combinations in sequence instead of simultaneously

Ex: Command and Q(press and hold command then press Q)

= quit program

With Sticky keys on - can press command, then press q q to

quit program



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Turn Slow Keys on or off -

If it is too slow it seems not to work so be patient!!

Can change the acceptance delay to long or short

Can click to have keys make sounds

Click on Mouse & Trackpad

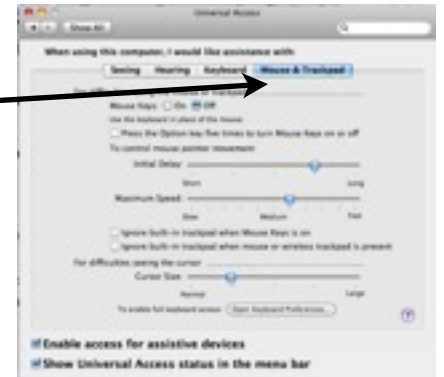


Mouse Keys: Can use the keyboard instead of the mouse

Set up option key - press option key 5 times to turn mouse keys on or off

Control movement of the mouse pointer to slow, fast or short or long

Can make the pointer/cursor larger



Other Resources: Apple's Websites - <http://www.apple.com/education/special-education/>

<http://www.apple.com/education/special-education/#vision>

http://www.apple.com/pro/tips/zoom_demos.html

<http://www.apple.com/accessibility/macosx/vision.html>

<http://www.apple.com/macosx/accessibility/>

<http://www.apple.com/education/special-education/#hearing>

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Called VoiceOver, it describes aloud what appears on your computer screen: text in documents, windows, menus, dialogs, and more. But it's much more than simply a text-to-speech tool. Using VoiceOver, you can control your Mac with a keyboard, a braille display, or a Multi-Touch trackpad — instead of a mouse.

VoiceOver makes surfing the web much easier. It can begin reading an entire web page automatically after the page loads, or it can summarize the page for you, reading only the title, number of tables, headers, links, form elements, and other items. Mac OS X also offers a unique virtual control called a rotor. When you turn it — by rotating two fingers on your Multi-Touch trackpad — you control how VoiceOver moves through the page, such as by header, link, frame, table, or form element. And because many web pages are difficult to convey through a screen reader, Apple invented new technologies to comprehend and interpret the visual design of web pages, then use the information to assign virtual tags called “auto web spots” to mark important locations on the page. On a newspaper website, for example, there might be an auto web spot for each lead story, another for a box containing weather or sports scores, and so on. You can jump from web spot to web spot with a keystroke or the flick of a finger.

OTHER ACCESSIBLE FEATURES

HEARING

Photo Booth

Photo Booth, an application for taking photos and video using the iSight camera, gives deaf and hard-of-hearing students another way to communicate using sign language. With one click, a student can record a video message. Then with a second click, that video can be emailed to others.

GarageBand

GarageBand is part of the award-winning iLife suite of digital media applications that is included with every Mac. Schools are using GarageBand to improve auditory comprehension among deaf and hard-of-hearing students — particularly those adjusting to new cochlear implants. Teachers create podcasts of conversational speech and download them to an iPod or iPad. Students use the podcasts to learn inflection and how to differentiate one voice from another.

Closed Captioning

With a Mac, displaying open and closed captioning in QuickTime and DVD Player is simple. Students can also download and watch captioned movies and other iTunes content on iPhone, iPad, and iPod touch and even PCs (using QuickTime for Windows).

Text to Speech

For students with cognitive disabilities, the Mac is equipped with Text-to-Speech (TTS) technology that can read aloud a selection of text or an entire document. Mac TTS includes various male and female voices, including a more natural-sounding voice named Alex. Alex

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actually pauses to “breathe” when speaking long passages, and sounds as good at high speed as he does at normal speaking rates. Mac TTS works with all applications that support the OS X Speech engine, including Mail, iChat, and TextEdit.

Word Completion



Students can avoid spelling mistakes and reduce keystrokes with the word completion feature of the Mac. After typing a few characters, a student can press the Escape key to open up a list of words beginning with those characters. It highlights correct word usage, and it's available in most applications.

Built-in Spelling and Grammar Checking

Every Mac provides students with the benefits of resources such as the



New Oxford American Dictionary, Oxford American Writer's Thesaurus, Apple Dictionary, Wikipedia, scientific reference materials, and grammar and pronunciation guides. All of the Mac applications access the same dictionaries, ensuring consistency when grammar- and spell-checking documents. If a student adds new words to the spelling or grammar dictionary in one application, they are automatically applied to all other applications.

Grapher

A full-featured graphing calculator, Grapher is a powerful tool for math at any level. It enables the real-time analysis of mathematical equations, and it's easy to use.

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iPhone, iPad, and iPod for the learning disabled

iPhone, iPad, and iPod touch are powerful tools for distributing lessons, connecting to iTunes content while on the go, and accessing useful apps created specifically for students with learning disabilities.

VISION

In addition to basic features that allow blind and low-vision students to magnify the screen, adjust display contrast, and increase cursor size, other technologies unique to the Mac are built right into the operating system.

VoiceOver



VoiceOver is an advanced screen-reading technology that goes well beyond Text to Speech. Students can hear a spoken description of what's onscreen and can control their computer using only the keyboard (no mouse required). They can also use VoiceOver to browse the web, chat, send and receive email, use iTunes, edit text documents, and more.

VoiceOver is simple to use. Settings can be customized, and preferences can be saved on a USB flash drive and applied to other Mac computers. And OS X Lion includes built-in voices that speak 22 languages. So schools don't need to set a particular computer aside for Special Education use — every Mac can be used by any student worldwide.

Text to Speech

The Mac is equipped with speech technologies that include talking alerts (which speak the content of dialogs and alerts), a talking calculator, a talking clock, and Text to Speech (TTS), a feature that reads selected text aloud. TTS works with all applications that support the OS X Speech engine, including Mail, iChat, and TextEdit.

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**Refreshable Braille
Display Support**

VoiceOver supports more than 40 different models of refreshable braille displays — including wireless Bluetooth displays — that work with the Mac as soon as they're connected. OS X Lion includes built-in support for more than 80 braille tables serving a wide range of languages. Best of all, VoiceOver exhibits spoken output as text or braille onscreen, allowing for more effective collaboration with other students, even those without visual disabilities.



OS X includes a feature called braille mirroring that allows one Mac to control multiple USB braille displays simultaneously. So teachers can lead an entire class through the same lesson at the same time, even if the students are using different models of braille displays.



Screen Magnification

With a feature called Zoom, students can use picture-in-picture magnification, allowing them to see the zoomed area magnified by up to 20x in a separate window while keeping the rest of the screen at its native size. Text, graphics, and even video can be magnified without affecting system performance.

- [Learn more about iPod features for visually impaired students](#)
- [Learn more about iPhone features for visually impaired students](#)
- [Learn more about iPad features for visually impaired students](#)