

Macintosh OS X Universal Access

Built-in Accessibility for Students with Sensory Challenges Cursor Size, Zoom, Display, and Flash Screen

Introduction

Many students who have visual impairments or physical access issues require specific software solutions. However, other students can use the built in accessibility preferences found in the Universal Access area of the Macintosh System to adjust the cursor size, zoom and screen contrast to give them more effective access to their computer. In this tutorial you will learn how to adjust the various preferences found in Macintosh's Universal Access.

This tutorial assumes...

- You have access to a Mac running OS X

Learning Objectives

Completion of this tutorial will give you experience with the following...

- Using the Cursor Size preference to adjust the size of the cursor
- Using Zoom preferences to make objects on the screen larger
- Using Display preferences to enhance the contrast, invert the colors (white on black) and to set display to grayscale
- Using the Flash screen preference to replace the computer beep

Case Study

Jasminder is a Grade 9 student with sight issues and a minor hearing loss. With his corrective lenses he is able to read large print. In general, his hearing loss is not an issue. Jasminder will be getting a computer to assist him in increasing his written output. He likes using the computer but finds the icons difficult to see, the pull-down menus blurry, and the cursor hard to locate. Video clips and pictures are often too small for him to see clearly. Jasminder finds the system alert beep annoying and finds it embarrassing when the alert sound goes "beep" and his peers have to tell him that it is his computer that is "beeping."

Jasminder's team has decided to teach him how to adjust the following Universal Access preferences on his Macintosh. The team wants Jasminder to be independent with these features:

- Adjust Cursor size so the cursor is easier to see on the screen
- Adjust Zoom with his mouse and/or his keyboard to magnify the screen
- Adjust Display to make it easier for him to see items on his computer desktop
- Adjust Flash Screen to avoid the distracting auditory alert beep

Increasing Cursor Size

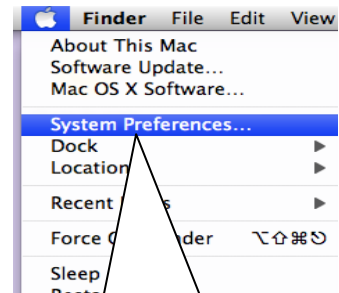
1

Adjusting Cursor Size is a feature found in **Universal Access**.

To find this feature:

Go to **Apple > System Preferences...**

You may also find System Preferences by clicking this icon in your system dock.



Slide down to **System Preferences** and release

2

On the **System Preferences** window that opens, go to the **System** area and click **Universal Access**.

Universal Access Icon



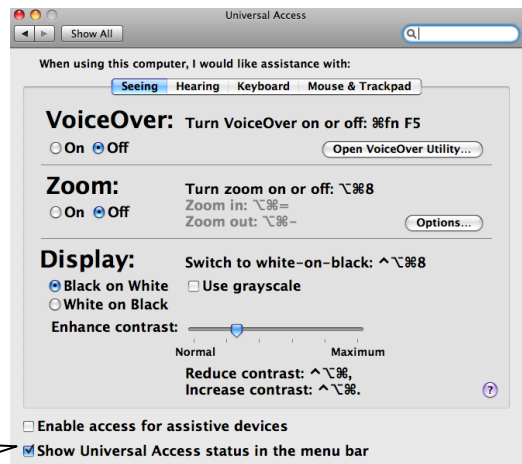
3

When the **Universal Access** window opens, ensure that **Show Universal Access status in the menu bar** is enabled.

Having the Universal Access Icon visible on your top menu bar allows you to find which features are enabled. It enables you to access the Universal Access Preferences easily.



Show Universal Access status in the menu bar should be checked.

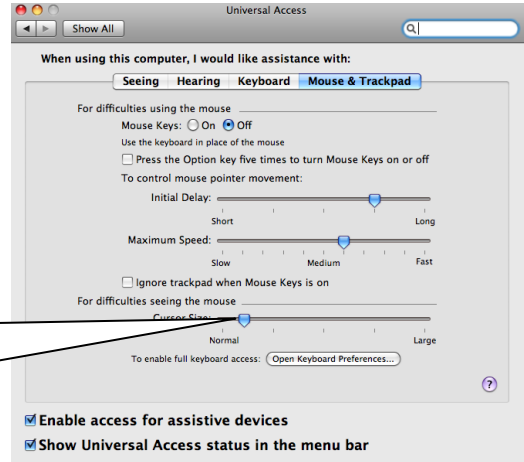


4

On the top of the Universal Access window, click on the **Mouse & Trackpad** tab.
Note: If you are using a desktop Mac, it will be the **Mouse** tab.

Slide the **Cursor Size** slider until the cursor is the desired size.

Click and drag the marker to change the size of your cursor. You will get a preview as you make the adjustments.



Adjusting Zoom

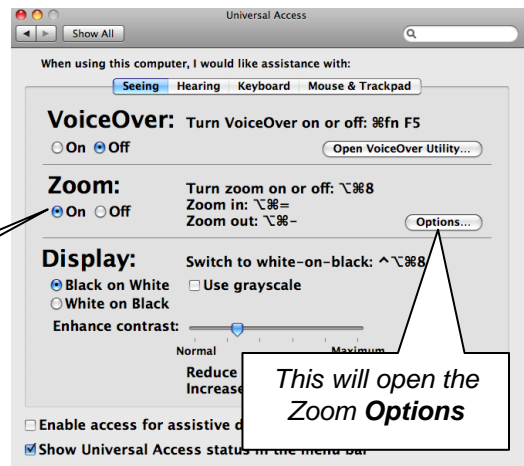
1

Zoom allows you to increase the size of everything on your screen. This is very helpful for students who have visual impairments.

On the **Universal Access** window, click the **Seeing** tab. In the **Zoom** area turn the feature on.

Ensure On is checked

Click on **Options...**



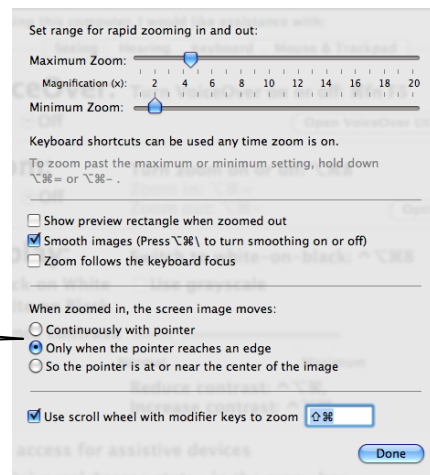
This will open the Zoom Options

2

On the Options window that opens up, change the **When zoomed in, the screen image moves:** as shown (click on **Only when the cursor reaches an edge**).

This feature will make the zoom feature easier for the student to use.

*Click on **Only when the pointer reaches an edge***

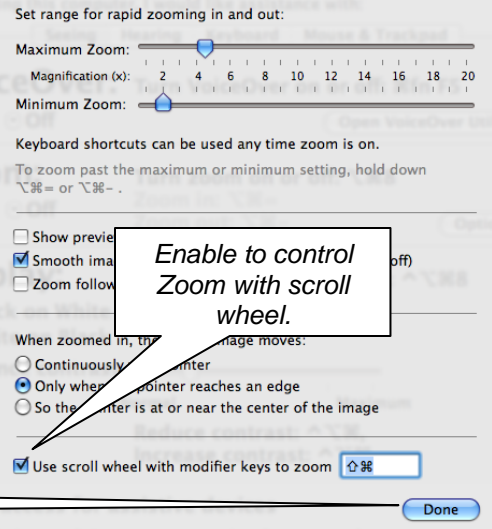


3

If you will be using the zoom feature frequently, you may want to use a mouse with a scroll wheel to easily control the zoom. On the Zoom Options window, you can turn on the **Use scroll wheel with modifier keys to zoom**.

The example here shows the use of Shift-Cmd but, if you want, you can change the modifier keys you would hold down while scrolling with the mouse wheel.

Click **Done** to close Zoom Options.

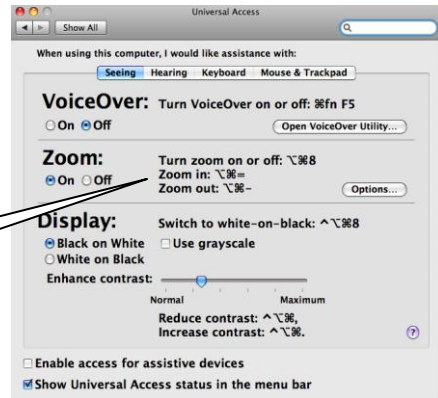


4

In use, to activate and control the **Zoom** feature, you can use the following keyboard commands...

- Option-Command8:** toggles **Zoom** on and off
- Option-Command+:** Zooms in
- Option-Command-:** Zooms out

If you forget the keyboard commands, open **Universal Access** to review.



Adjusting Display

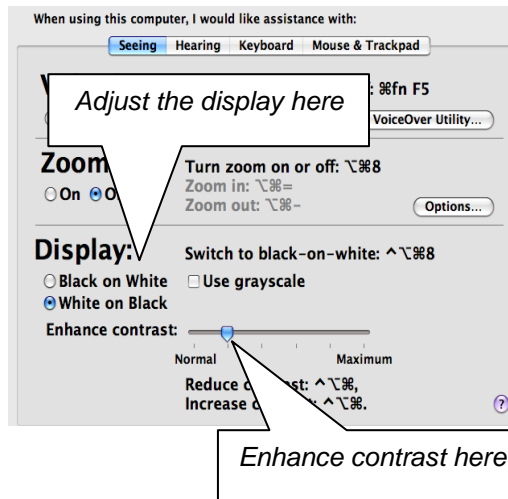
1

Display allows you to enhance the contrast, invert the colors (white on black) and set the display to grayscale.

On the **Universal Access** window, click the **Seeing** tab. In the **Display** area choose **Black on White** (normal) or **White on Black** (high contrast). You can also choose to **Use grayscale** if you don't want any colour in your display.

You can **Enhance contrast** by moving the slide bar to the right or left.

Note the keyboard commands next to each Display feature for quick access!

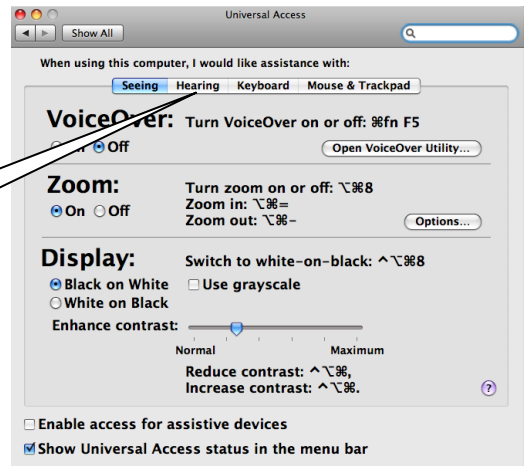


Activating Flash Screen

1

On the **Universal Access** window click on the **Hearing** tab.

Select the
Hearing tab

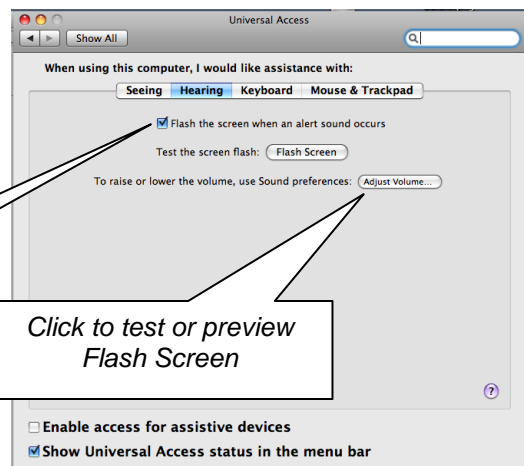


2

Select the **Flash the screen when an alert sound occurs**. This will replace the auditory alert sound (usually a beep) with a screen flash.

If you want to test this, click the **Flash Screen** button.

Click to select



Click to test or preview
Flash Screen

Checklist of Skills Developed in this Tutorial

- Access Universal Access Preferences
- Place Universal Access Preference icon in the menu bar
- Adjust size of the cursor
- Use Zoom to magnify screen
- Adjust screen contrast
- Switch between the default “black on white” display and a “white on black” display
- Switch between a color display and a grayscale display
- Switch between an auditory system alert and a visual system alert