

Accessibility Options in Microsoft Windows XP and Macintosh OS 10.4 Tiger

System Modifications	Windows XP	Macintosh Tiger
<p>Visual Accommodations</p> <p>Vision problems, ranging from slight impairments to blindness, can prevent full computer access. System level options built into Windows XP and Tiger allow for larger fonts, icons, buttons, menus and toolbars and speech output.</p>		
<p>Change screen resolution. Smaller numbers result in larger screen objects</p>	<p>Control Panel: Display: Settings: Display: Screen Resolution – Choose 800 X 600 for largest screen items</p>	<p>System Preferences: Displays: Display – Choose 640 x 480 or 800 x 600 for largest screen items</p>
<p>Reduce background clutter. Pick a solid desktop pattern</p>	<p>Control Panel: Display: Desktop: Background – Choose <i>None</i>. Select preferred solid color for background.</p>	<p>System Preferences: Desktop & Screen Saver: Desktop – Choose one under Apple Images or Solid Colors</p>
<p>Change background color in a folder. Some users may prefer colors other than white when viewing files.</p>		<p>Click inside the folder: View Menu: Select Show View Options: Select Color</p>

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<p>Increase size of icons and their names. This could be done in addition to or in lieu of changing the resolution.</p>	<p>Control Panel: Display: Appearance: Font Size - Choose Large or Extra Large font size. Control Panel: Display: Appearance: Effects- Use large icons. Control Panel: Display: Appearance: Advanced: Item – Change item and font.</p>	<p>Click on desktop: View Menu: Select Show View Options – Change icon size/text size/background color</p>
<p>Make the display monochrome or make the display high contrast, white background with black text. Some visually impaired users prefer white on black text.</p>	<p>Control Panel: Display: Appearance: Color Scheme: Choose High Contrast White</p>	<p>System Preferences: Universal Access: Display – Select <i>Use Grayscale</i> to adjust contrast, if needed.</p>
<p>Add applications to the Start Menu and Task Bar (Windows) and Dock (Mac). Place often used applications and documents in these locations for easy access.</p>	<p>Right-click on TaskBar: Properties: Taskbar: Click Show Quick Launch – Drag application shortcuts to the Taskbar for easy launch. Right-click on TaskBar: Properties: Taskbar: Start Menu: Customize – Click <i>Add</i> to add items to the Start Menu</p>	<p>Drag application icons to the left of (or above) the line in the Dock. Drag all other icons to the right of (or below) the line in the Dock.</p>
<p>Increase the size of the Dock.</p>		<p>Apple Menu: Dock: Dock Preferences. Adjust the Dock size and Magnification according to user preference.</p>

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<p>Enlarge size of cursor, select pointer scheme other than default one, & adjust blink rate. Helps a user identify the cursor and track it more easily.</p>	<p>Control Panel: Mouse: Pointers: Scheme – Select larger scheme (e.g., Windows Black Extra Large) Control Panel: Accessibility Options: Display: Cursor Options – Adjust Cursor Blink Rate and Width sliders. Control Panel: Keyboard: Speed – Adjust Cursor Blink Rate slider.</p>	<p>System Preferences: Universal Access: Mouse & Trackpad – The <i>Cursor Size</i> slider adjusts in real time. System Preferences: Displays: Display – Select 640 x 480 or 800 x 600 for largest screen items.</p>
<p>Change pointer speed, automatically move pointer to default button in a dialog box, display pointer trails, show location of pointer. Helps a user identify the location of the cursor and track it more easily.</p>	<p>Control Panel: Mouse: Pointer Options – Select <i>Pointer Speed</i>. Select <i>Snap To</i>. Select <i>Display Pointer Trails</i>. Select <i>Show location of pointer when I press the CTRL key</i>.</p>	<p>System Preferences: Universal Access: Mouse & Trackpad – Adjust mouse pointer movement and speed sliders.</p>
<p>Magnify the screen.</p>	<p>Start Button: Programs: Accessories: Accessibility: Magnifier - Select <i>Magnification Level</i>, <i>Tracking</i>, and <i>Presentation</i> setting. Magnifier provides a minimum level of functionality; it magnifies a portion of the screen. A third party screen enlargement software program is required to enlarge the whole screen (e.g., ZoomText, BigShot).</p>	<p>System Preferences: Universal Access: Seeing – Zoom can be turned off/on using keyboard equivalents. Use the <i>Zoom Options</i> to customize behaviors.</p>

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Use a screen reader.	<p>Start Button: Programs: Accessories: Accessibility: Narrator – Select settings.</p> <p>Narrator works with Wordpad, Notepad, Control Panel programs, Internet Explorer, the Desktop, and Windows Setup. Narrator provides a minimum level of functionality. A third party screen reader is required for higher functionality (e.g., JAWS).</p>	<p>System Preferences: Universal Access: Seeing – <i>VoiceOver</i> can be turned off/on using keyboard. Use the <i>VoiceOver Utility</i> to customize behaviors.</p>
Use auditory cues when certain locking keys are pressed (e.g., Caps Lock).	<p>Control Panel: Accessibility Options: Keyboard: ToggleKeys – Use ToggleKeys</p>	
Use audio compression within QuickTime Player. Listening to recorded speech can be tedious if there are long pauses between the speaker(s) words or phrases. Speech that has been recorded using GarageBand, iMovie or audio recorders can be played back without pauses or pitch change.		Using QuickTime Player, hold down the Fast Forward (>>) button. If the user can't hold the button, he can use the mouse keys feature (see <i>Use the keyboard to move mouse cursor</i> in the physical accommodations section) to lock a Mouse Down action over the Fast Forward button.

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<p>Hearing Accommodations Provides visual prompts to audio alerts for students with hearing impairments and attention problems.</p>		
<p>Use visual cues when an alert sound occurs.</p>	<p>Control Panel: Accessibility Options: Sound – Select <i>Use SoundSentry</i> and/or Select <i>Use ShowSounds</i></p>	<p>System Preferences: Universal Access: Hearing – Select <i>Flash the screen</i> when an alert sound occurs</p>
<p>Physical Accommodations Customizing the system makes it easier for a student with physical disabilities to control a computer.</p>		
<p>Control the computer with one finger. Allows computer access with one finger, headstick, or mouthstick.</p>	<p>Control Panel: Accessibility Options: Keyboard: StickyKeys – Select <i>Use StickyKeys</i>.</p>	<p>System Preferences: Universal Access: Keyboard – Select <i>Sticky Keys</i>. Display pressed keys on screen.</p>

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Slow down key acceptance. Creates a delay between when a key is pressed and when it is accepted.	Control Panel: Accessibility Options: Keyboard: FilterKeys – Select <i>Use FilterKeys: Settings: Filter Options.</i> OR, Control Panel: Keyboard: Speed: Character Repeat – Use slider to adjust settings	System Preferences: Universal Access: Keyboard – Select <i>Slow Keys On</i> , use <i>Acceptance Delay</i> slider.
Highlight and drag without holding down the mouse button. Allows users who have difficulty holding down a mouse button to highlight and drag to use a standard mouse.	Control Panel: Mouse: Buttons – Select Turn on Click Lock.	System Preferences: Keyboard & Mouse: Trackpad – Select Trackpad Gestures: Clicking: Dragging: Drag Lock.
Turn off Key Repeat.	Control Panel: Accessibility Options: Keyboard: FilterKeys – Select <i>Use FilterKeys: Settings: Filter Options.</i>	System Preferences: Keyboard & Mouse/Key Repeat Rate – Adjust with slider.
Create keyboard shortcuts.	My Computer or Desktop: Right-click on program file or shortcut: Properties: Shortcut – Type a <i>Shortcut Key</i> .	System Preferences: Keyboard & Mouse: Keyboard Shortcuts – Use the + to add new shortcuts.
Allow for full keyboard access. Allows the user to navigate windows and dialog boxes with the keyboard.	Windows has shortcuts that allow for full keyboard access. See Help section for list of keyboard shortcuts.	System Preferences: Keyboard & Mouse: Keyboard Shortcuts – Select Text boxes and lists or All controls.
Navigate the computer using the keyboard.	Select and open applications by typing letters, using arrow keys and keyboard shortcuts.	Select and open applications by typing letters, Tab and Apple-O

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Use the keyboard to move mouse cursor. If the user is proficient with one digit or stick, they can mouse around.	Control Panel: Accessibility Options: Mouse: MouseKeys – Select <i>Use MouseKeys</i> . In <i>Settings</i> , select <i>Pointer Speed</i> . Use the #5 to click; Insert button to activate drag; and Delete button to release the drag feature. Num Lock may need to be turned on for MouseKeys to operate properly.	System Preferences: Universal Access: Mouse & Trackpad – Turn Mouse Keys ON. Control speed with Delay and Speed sliders.
Slow down the mouse double-click. Most impaired mouse users have trouble with double-clicking.	Control Panel: Mouse: Buttons: Double-click speed – Adjust speed on slider.	System Preferences: Keyboard & Mouse: Trackpad/Mouse – Set Double Click Speed with slider.
Set scroll bar behavior. It is often easier for users to have scroll arrows next to each other for easy access.		System Preferences: Appearance – Place scroll arrows <i>Together</i> . You can also set the scroll click behavior.
Use an on-screen keyboard.	Start button: Programs: Accessories: Accessibility: Onscreen Keyboard	System Preferences: International: Input Menu – Check Keyboard Viewer, select it from the menu bar.
Use a different keyboard layout. Some users may prefer a Dvorak, Left Hand, or Right Hand Dvorak.	Control Panel: Regional and Language Options: Languages – Select <i>Details</i> , <i>Settings</i> , <i>Add</i> , <i>Keyboard Layout</i> , select keyboard.	System Preferences: International: Input Menu – Select Keyboard, select it again from the menu bar. NOTE: Tiger is missing the Left and Right-Handed Dvorak layouts. You can add them from an older system by adding .rsrc as its extension then putting it in the keyboards folder inside the library folder under the current (or student) user.

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<p>Use an inexpensive graphics tablet and Ink or a Tablet PC. Students with severe physical disabilities, such as muscular dystrophy, can often form letters, but are unable to move their hands across the paper. These students can conserve energy by writing in one place.</p>	<p>Handwriting recognition is available if Microsoft Office XP is installed on the computer. To determine if the handwriting engine is installed: Control Panel: Regional and Language Options: Languages: Text services and input languages: Details: Installed Services: Add. If the engine is available, it will be listed here.</p> <p>If you are using a tablet computer, you can use Tablet PC Input Panel for handwriting. You can use handwriting recognition in programs that support it, including Internet Explorer, Outlook Express, and all Microsoft Office XP programs.</p>	<p>System Preferences: Ink – Adjust setting as needed.</p> <p>Note: <i>Ink</i> will only appear if a graphics tablet is connected.</p>
<p>Connect assistive devices (e.g., augmentative communication device). Allows alternative access to keyboard and mouse features.</p>	<p>Control Panel: Accessibility Options: General – Select Use SerialKeys.</p>	<p>System Preferences: Universal Access: Mouse & Trackpad – Check Enable access for assistive devices.</p>

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<p>Accommodations for Learning</p> <p>Some users with learning differences need extra support to complete computer and school tasks. Windows XP and Tiger have built-in features that help users read, look up definitions, and use a calculator for math and data conversions.</p>		
<p>Use colored labels to differentiate documents and folders.</p> <p>You can change the label color of any icon.</p>		<p>Select the label icon with one click; Under <i>File</i>, select <i>Get Info</i>; Click on expansion triangle next to <i>General</i> if closed; OR Right Click/Control Click on a label and select <i>Select one of 8 colors</i>.</p>
<p>Add a picture to a folder, change the standard folder icon to another icon.</p> <p>Some users can better identify the contents of folders if pictures or icons other than the default folder symbol is used.</p>	<p>Right click on the folder: Customize: Folder Pictures – Select <i>Choose Picture</i>.</p> <p>Right click on the folder: Customize: Folder Icons – Select <i>Change Icon</i>.</p>	<p>Copy a picture: Select the folder or file of the icon you want to replace: <i>File Menu</i>, <i>Get Info</i> (or press Command-I) to open the Info window: <i>Click the icon in the upper-left corner of the Info window</i> to select it: Press <i>Command-V</i> to paste.</p>

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<p>Set up the computer to read text. Text-to-speech (TTS) is the ability of the operating system to read printed text as spoken words. Users are able to select words, phrases, or whole texts to read aloud.</p>	<p>A TTS engine is installed with the operating system. Third party manufacturers also provide additional engines.</p> <p>Using Narrator, you can read aloud new windows, menus, or shortcut menus when they are displayed. The user can also read aloud typed characters. Using Narrator, you can have the mouse pointer follow the active item on the screen. In addition, Narrator allows the user to adjust the speed, volume, or pitch of the voice. However, this Windows accessibility program provides only basic functionality.</p> <p>Typed, downloaded, or scanned text can be read by commercial scan and read programs, such as Kurzweil 3000 and Read & Write Gold.</p>	<p>System Preferences: Speech: Text to Speech – Select your <i>System Voice & Rate</i>. Select <i>Speak Selected Text</i> when the key is pressed. You can re-set the HOT key that triggers the speech.</p> <p>You can buy other voices from AT&T and Cepstral.</p> <p>Text can be typed, downloaded or scanned. Software programs such as Kurzweil 3000 and Read & Write Gold can be used to both scan and read.</p>
Use the dictionary shortcut in TextEdit, Safari and Pages.		Users can bring up definitions using Hot keys. Use the <i>Control</i> , <i>Open Apple</i> , and <i>D</i> keys to view definitions. The dictionary can also be brought up as an application or widget.
Use the word completion shortcut in TextEdit, Safari and Pages.		Users can bring up definitions using Hot keys. Use the <i>Option-Escape</i> keys to view a list of possible word completions.
Use the Calculator for math and conversions.	<p>Start: Programs: Accessories – Select <i>Calculator</i>.</p> <p>You can use the Calculator in Standard view to do simple calculations, or in Scientific view to do advanced scientific and statistical calculations.</p>	<p>The Calculator is located in the <i>Applications folder</i>. It can be set to <i>Speak the Button Pressed</i> or <i>Speak and Print the Result</i>. It can convert area, currency, temperature, etc.</p> <p>Drag it to the Dock for easy access.</p>

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<p>Limit access to specific programs.</p> <p>You can set up restrictions for how users access computer resources, such as allowing users to operate computers and save documents, but not install programs or change system settings; limiting access to specific programs; restricting printing capabilities; etc.</p>	<p>Control Panel: User Accounts: Users – Click <i>Add</i>. Type <i>user name</i> and <i>domain</i>. Select <i>Restricted User</i> when asked about level of access.</p> <p>This procedure allows a user to operate a computer and save documents, but not install programs or change system settings. If you need to limit access to specific programs, you will need to set these restrictions through Group Policy.</p>	<p>System Preferences: Accounts – Create a new account by clicking the lock to make changes, then the + key to add a new users. Do not allow administrator permission for the new user if you wish to set Parental Controls. Select the <i>Parental Controls</i> then <i>Select Finder and System and Configure...</i> . Select <i>Simple Finder</i> and set which applications and privileges you want the student to have.</p>
<p>Have the most used application pre-loaded at boot-up.</p> <p>Any application can open automatically upon startup, eliminating the need for users to open frequently-used programs.</p>	<p>Log in as an administrator: Open My Computer: Open C drive: Open Documents and Settings: Open the User you want to set up: Start Menu: Programs: Startup folder – Drag the application shortcut into this startup folder.</p>	<p>System Preferences: Accounts – Log in as the user you want to set up. Select Login Items, select the + and select the application you want to pre-load when the user logs in. Deselect Allow administrator permission and reset the Parental Controls. OR, Login as the user you want to set up. Place the login items in the dock. Select each applications you want preloaded from the Dock with a right-click or hold down the Control key. Select Open at Login from the pop-up menu.</p>

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