

COMPUTER Accessibility

The specific need for assistive technology is unique to the individual. “Trial-and-error may be required to find a set of appropriate tools and techniques. The end user—the person with a disability—should play a key role in determining what works best” (Burgstahler & Comden, 2002). For further information, equipment loan or consultation, contact the South Carolina Assistive Technology Program at (803) 935-5263 or 1-800-915-4522, www.sc.edu/scatp.

This list is not intended to endorse specific vendors.

Disability: Vision Impairment

AT/Accommodations	Products/Vendors	Comments
High Contrast	MS Windows Accessibility Options	Allows user to change screen and font colors and sizes for easy reading (start-control panel-accessibility options). **
Cursor Options	MS Windows Accessibility Options	Changes the speed that the cursor blinks and the width of the cursor (start-control panel-accessibility options).
Toggle Keys	MS Windows Accessibility Options	Produces a tone when pressing CAPS LOCK, NUM LOCK, or SCROLL LOCK (start-control panel-accessibility options).
Narrator	MS Windows Accessibility Options (MS Windows 2000 or higher)	Reads aloud menu commands, dialog box and more (start-all programs-accessories-accessibility).
Magnifier	MS Windows Accessibility Options (MS Windows 98 or higher)	Provides variable magnification settings and allows user to invert color (start-all programs-accessories-accessibility).

AT/Accommodations	Products/Vendors	Comments
Large Screen Fonts	MS Windows Display Settings	Provides large fonts on the screen (start-control panel-display-appearance).
Large Monitor (19" or larger)	Retail store (Best Buy, Circuit City, Target, Walmart, etc.) or designated procurement manufacturer	When using magnification software, allows the user to see more of the screen at once.
Large Print Keyboard Key Labels	Zoom Caps: maxiaids.com , donjohnston.com Large Print Keytop Labels: infogrip.com	Identifies keyboard keys through labels applied to surfaces of keys. Includes all alpha-numeric characters. Available in various color combinations.
Glare Guard	Retail store (Office Max, Staples, etc.) or designated procurement manufacturer	Reduces glare, helps the user avoid eyestrain and enhances readability through a screen placed in front of a computer display.
More Visible Mouse Pointer	Microsoft Pointer Options	Allows user to change cursor size and add trailers (Start-Control Panel-Mouse-Pointer Options).
Large Pointer Software	Biggy: rjcooper.com	Provides selection of ultra-visible mouse pointers that work within any software.
Screen Magnification	Press "Ctrl" and scroll mouse wheel	Enlarges screen items, including web pages.
Screen Magnification Software	ZoomText: aisquared.com/ , infogrip.com MAGic® Screen Magnifier-No Speech: freedomscientific.com	Provides full and partial screen enlargement. ZoomText can be purchased on a USB drive for portability.
Screen Magnification Software with Screen Reader	ZoomText: aisquared.com/ , infogrip.com MAGic® Screen Magnifier-With Speech: freedomscientific.com	Provides full and partial screen enlargement with screen reader. ZoomText can be purchased on a USB drive for portability. MAGic® has limited screen reader capability.

AT/Accommodations	Products/Vendors	Comments
Colors Compatible for People with Color Blindness	MS Windows Display Settings	Allows selection of various color schemes to enhance screen readability (start-control panel-display-appearance).

Disability: Blindness

AT/Accommodations	Products/Vendors	Comments
Screen Reader	JAWS® for Windows: freedomscientific.com , WYNN™/ freedomscientific.com , gokeytech.com ; Balabolka/ cross-plus-a.com/balabolka.htm ; NonVisual Desktop Access/ nvda-project.org/	Makes documents, Internet and commands audible. JAWS® has output to refreshable Braille displays.
Optical Character Recognition (Scanner)	Retail store (Office Max, Staples, etc.) or designated procurement manufacturer	Translates typed text into an editable document.
Braille Embosser	Romeo: Enabling Technologies.com , Juliet Pro: Enabling Technologies.com .	Includes regular Braille graphics, high-resolution Braille graphics, and Dynamic Braille Scaling. Select increased line spacing. Juliet Pro embosses two sides of a sheet of paper.
Braille Keytops for Keyboard	Braille Keytop Labels: maxiaids.com	Identifies keyboard keys through Braille stickers applied to surfaces of keys.
Headphones	Retail store (Office Max, Staples, etc.) or designated procurement manufacturer	Allows use of auditory features without disturbing others nearby.

Disability: Deafness/Hearing Impairment

AT/Accommodations	Products/Vendors	Comments
Sound Sentry	MS Windows Accessibility Options	Provides visual warnings when computer system makes a sound (start-control panel-accessibility options).
Show Sounds	MS Windows Accessibility Options	Allows programs to show captions for the speech and sounds they make (start-control panel-accessibility options).
OOvoo	oovoo.com	Free video chat.

Disability: Deafblind

AT/Accommodations	Products/Vendors	Comments
Refreshable Braille Display	Focus Braille Displays: freedomscientific.com , BrailleConnect: humanware.com	Displays Braille characters by means of raising the dots through holes in a flat surface.

Disability: Mobility Impairment

AT/Accommodations	Products/Vendors	Comments
Computer Location Accessible for Wheelchairs	For questions, go to www.ada.gov/ .	Provides step-free location with enough turning room to allow a person using a wheelchair to

AT/Accommodations	Products/Vendors	Comments
		access a computer.
Adjustable Computer Workstation	Accessible Computer Station: maxiaids.com Sit/Stand/Recline Computer Workstation: ergoquest.com	Accommodates a wheelchair for access to the monitor, keyboard and mouse.
Wireless Keyboard and Mouse	Logitech Cordless: logitech.com Retail store (Best Buy, Circuit City, etc.) or designated procurement manufacturer	Allows computer access from a distance.

Disability: Manual Dexterity Impairment

AT/Accommodations	Products/Vendors	Comments
Adjustable Computer Workstation	Accessible Computer Station: maxiaids.com	Allows for easier access to the monitor, keyboard and mouse.
Ergonomic Chair	Retail store (Office Max, Staples, etc.) or designated procurement manufacturer	Facilitates correct positioning to reduce fatigue and facilitate access.
Foot Rest	Adjustable Foot Rest or Footrest: infogrip.com	Redistributes body weight to decrease strain and fatigue on legs, back and neck.
Keyguard for Keyboard	turningpointtechnology.com	Maximizes physical access to accurately target keys on the keyboard. Turning Point makes customized keyguards.
Trackball Mouse	Retail store (Best Buy, Circuit City, etc.) or designated procurement manufacturer.	Requires less precision for operation than a mouse does.

AT/Accommodations	Products/Vendors	Comments
Trackball Mouse with Keyguard	Traxsys Trackball Plus: infogrip.com , donjohnston.com , gokeytech.com	Includes buttons that support right and left click, double click, drag lock, horizontal and vertical lock, and cursor speed control. Keyguard helps user isolate the buttons.
Orbit Optical Trackball Mouse	Kensington Orbit Optical Trackball mouse: kensington.com	Allows the user to control the cursor with a simple touch of the finger.
Joystick Mouse Emulator	Retail store (Best Buy, Circuit City, etc.) or designated procurement manufacturer. Traxsys Joystick Plus: infogrip.com , donjohnston.com , gokeytech.com	Includes buttons that support right and left click, double click, drag lock, horizontal and vertical lock, and cursor speed control. The Joystick Plus includes a keyguard to help users isolate the buttons.
Alternative Keyboard – expanded	Expanded keyboard with keyguard: Big Keys/ gokeytech.com Intellikeys @ intellitools.com , gokeytech.com	Includes simplified keyboard with large keys. QWERTY or alphabetized key arrangements are available.
Alternative Keyboard – ergonomic	Ergonomic keyboards: Retail store (Best Buy, Circuit City, etc.), designated procurement manufacturer, or infogrip.com , maltron.com	Helps prevent cumulative trauma disorders. Some models have flexibility to accommodate specific disabilities.
Alternative Keyboard – mini	Mini keyboards: infogrip.com	Allows access with minimal movement. Can control both keyboard and mouse functions. Can be used with mouthstick or head pointer.
One-Handed Typing software	Half-Qwerty Typing Software: half-qwerty.com	Facilitates the transfer of two-handed typing skills to the one-handed condition. Typing is performed on a standard keyboard.
One-Handed Typing keyboard	Half-Qwerty Keyboard: half-qwerty.com	Incorporates Half-Qwerty software into a standard keyboard that can be used for either one- or two-handed typing.

AT/Accommodations	Products/Vendors	Comments
Arm and Wrist Supports	Articulating Arm Supports, Ergorest Arm Supports: infogrip.com	Provides comfortable arm, shoulder and neck support with unrestricted motion. Muscle tension in the neck and shoulders can be significantly reduced.
Touch Monitor	gokeytech.com , Keytec, Inc.: magictouch.com	Allows the user to make selections, move objects, and pull down menus with the touch of a finger on the monitor screen.
Touch Window	infogrip.com	Attaches to a computer monitor and allows the user to make selections, move objects, and pull down menus with the touch of a finger.
Multiple Access Modes software	E Z Keys™: gokeytech.com , words-plus.com	Provides text-based voice output with word prediction. Stores user-made phrases. A variety of access modes, including standard keyboard, expanded keyboard, joystick, mouse, single and multiple switch scanning, and Morse code, is available.
Sticky Keys	MS Windows Accessibility Options	Allows one-handed typists to use SHIFT, CTL, ALT keys with other keys sequentially rather than simultaneously (start-control panel-accessibility options).
Filter Keys	MS Windows Accessibility Options	Ignores brief or repeated key strokes or slows the repeat rate (start-control panel-accessibility options).
Mouse Keys	MS Windows Accessibility Options	Uses the numeric keypad to control the movement of the cursor (start-control panel-accessibility options).

AT/Accommodations	Products/Vendors	Comments
Double-click speed	MS Windows Mouse Properties	Allows the user to change the speed of the mouse double-click (start-control panel-mouse-buttons).
ClickLock	MS Windows Mouse Properties	Enables the user to highlight or drag without holding down the mouse button (start-control panel-mouse-buttons).
Word Prediction Software	Co:Writer®: donjohnston.com , E Z Keys™ for Windows: gokeytech.com , words-plus.com	Predicts the word the user is typing and the next word based on word frequency and context. May also include features such as spell check, speech synthesis, and hotkeys for frequently used words.
Auto correct	Microsoft Word	Allows the user to set up auto corrections to use fewer keystrokes when typing frequently used words or phrases. In Word 2003, go to “Tools”, then “AutoCorrect Options.” In Word 2007, go to the Office button, select “Word Options”, then “Proofing”, then “AutoCorrect.”

Disability: Lack of Manual Dexterity

AT/Accommodations	Products/Vendors	Comments
Switch	ablenetinc.com , GSTSdesigns.com , gokeytech.com , zygo-usa.com	With appropriate software, allows user to access a computer with a switch.
Head/Chin Pointer	gokeytech.com	Attaches pointer to head with straps.
Baseball Cap Headpointer	pattersonmedical.com	Attaches pointer to baseball cap.

AT/Accommodations	Products/Vendors	Comments
Electronic Pointing Device	Head Mouse® Extreme: orin.com ; SmartNav™: naturalpoint.com/smartnav/	Replaces a standard computer mouse for people who cannot use their hands. The wireless sensing technology employs infrared light and the user's head movements to guide the computer mouse across the screen.
Mouthstick	mouthstick.net , pattersonmedical.com	Allows user to type or manipulate items by using a stick controlled by mouth.
Typing Aid or Typing Pointer	Typing Aid: westons.com , activeforever.com	Straps to hand. Extending wand strikes keys.
Foot Mouse	No Hands Mouse/ abilityhub.com	Eliminates wasteful, repetitive "keyboard-to-mouse" hand movements.
Angle Mouse	depts.washington.edu/aimgroup/proj/angle/	Pointing facilitation technique.
Dasher	inference.phy.cam.ac.uk/dasher/SpecialNeeds.html	Information-efficient text-entry interface
Speech Input Software – Built in	Microsoft Office 2003 (very limited in Office 2007, but is included in the Vista and Windows 7 Operating Systems.)	Turns speech into text for use with Microsoft Office products. Set up through the “Tools” pull-down menu in Word 2003. Go to Microsoft.com/enable for a tutorial.
Speech Input Software	Dragon Naturally Speaking: nuance.com , GSTSdesigns.com , maxiaids.com	Turns speech into text. The user can create documents, enter data, launch applications, send e-mail, complete forms, and browse the Web. Various editions available based on profession and needs. Training required.
On-Screen Keyboard – Built in	MS Windows Accessibility Options (MS Windows 2000 or higher)	Allows users to mouse click, hover, scan, or use joystick to select key (start - all programs - accessories - accessibility). Windows 7 also

AT/Accommodations	Products/Vendors	Comments
		includes word completion.
On-Screen Keyboard Software	Softtype: orin.com	Integrates AutoClick™ and Dragger™ for performing clicking functions by dwell selection, multiple keyboard layouts, word completion with customizable word list, and excellent companion for HeadMouse® or other mouse emulators.
Noise Cancelling Microphone	Radio Shack, Best Buy, Circuit City, etc.	Provides high quality voice input for maximum accuracy with use of voice-to-text software (i.e. Dragon Naturally Speaking).
Abbreviation Expansion	Microsoft Word	Allows a series of letters or words to be assigned to two or more keystrokes (Under AutoCorrect Options).
Audio recording	Microsoft OneNote	Simplifies digital note-taking by adding an audio component.

Disability: Vision and Manual Dexterity Impairment

AT/Accommodations	Products/Vendors	Comments
Middle Software	JSay Pro Interface: GSTSdesigns.com	Allows Dragon Naturally Speaking and Jaws® to work together.

Disability: Cognitive Impairment

AT/Accommodations	Products/Vendors	Comments
Text to Speech Built in	Microsoft Office 2003	Speaks typed text in Microsoft Office 2003 documents. Set up through the “Tools” pull-down menu in Word. Go to Microsoft.com/enable for a tutorial.
Text to Speech Software	Natural Reader: naturalreaders.com/ , Wynn™: freedomscientific.com , gokeytech.com , Kurzweil: kurzweilededu.com , TextHelp Read&Write: www.texthelp.com/	Adds auditory component to written material to facilitate understanding. Natural Reader is a free download.
Language at the Third Grade Level	Microsoft Word Options	Includes a Flesch-Kincaid readability grade level, which is shown in the summary after spell check is completed (In Word 2007 document: office button- word options- proofing- show readability statistics.)
Word Prediction Software	Co:Writer®: donjohnston.com , E Z Keys™ for Windows: gokeytech.com , Words +: words-plus.com	Provides opportunity for sight-reading difficult-to-spell words. Predicts the word being typed and the next word based on word frequency and context. May also include features such as spell check, speech synthesis, and hotkeys for frequently used words.

- Before ordering additional software, review built-in accessibility options. For information about built-in accessibility options, go to www.microsoft.com/enable. To set up personal accessibility options in Internet Explorer, go to “Tools,” “Internet Options,” “Accessibility.” In Google Chrome, go to “Options,” “Under the Hood,” “Web Content.”
- **Path for Microsoft Accessibility Options is for “Classic” rather than “Category” view in Windows XP. Windows Vista and Windows 7 have the “Ease of Access” Center rather than the “Accessibility Options” icon. To get to the Ease of Access Center in Window Vista or Windows 7, press the Windows logo key + U. For more information about accessibility in Windows 7, go to www.microsoft.com/enable.
- Apple products, including Macintosh computers and the iPad, also have a great many built-in accessibility features. To get more information about these features, and to view videos demonstrating how to use them, go to apple.com/accessibility/.

Voluntary Product Accessibility Template (VPAT) – Procurement Tool

The Information Technology Industry Council (ITI) partnered with the US General Services Administration (GSA) to create an Internet-based tool to assist in procurement of the most accessible IT products and services in order to conform to Section 508.

The ITI hosts the template tool on their site allowing vendors (who choose to participate) to copy the template and complete it describing how their particular product or service conforms to Section 508 standards. The template is then placed on the vendor's web site, linked to the Buy Accessible database. The vendors maintain their own information on their site.

The Buy Accessible database can be searched by specific product or service to see all vendors who have provided links. To access the database, go to <http://www.buyaccessible.gov/>.

Reference

Burgstahler, S. & Comden, D. (2002). Working together: Computer technology and people with mobility & sensory impairments. Exceptional Parent Magazine, p. 36.