

Grand Valley State University Disability Support Services

Guide to Assistive Technology

JAWS 8.0 for Windows by Freedom Scientific is a screen reader application that supports non-visual computer users by making Windows and supported Windows applications accessible. JAWS uses a speech synthesizer to read text from within applications and web pages. JAWS interacts with Windows, and reads application menu items, dialogs, various controls, and system messages. JAWS is compatible with popular Windows software applications.

JAWS supports keyboard navigation of Windows and Windows applications, thereby making the computer nearly completely accessible for users who have visual impairments or who are blind. JAWS uses keyboard commands to emulate the use of a mouse.

A user must learn a set of key commands in order to effectively use JAWS. Keyboard layouts are available for both laptop computers using the built-in keyboard, and for desktop computers or laptops using an attached keyboard.

This is a quick reference guide to JAWS 8.0, and is not intended as a comprehensive user's manual.

This quick reference manual includes common document reading commands, informational commands, and navigational commands. All listed commands are based on the desktop layout, which is used in the GVSU computer lab environment. A more comprehensive list of JAWS commands, training materials, and other in-depth user information can be found with the JAWS Help system, on the JAWS documentation web site

http://www.freedomscientific.com/fs_support/doc_screenreaders.asp and on the JAWS download site

http://www.freedomscientific.com/fs_downloads/jaws.asp

Using JAWS for Windows in the GVSU Computer Labs

JAWS is available on the assistive technology workstations in the GVSU computer labs and libraries as a desktop icon. JAWS can also be run in conjunction with MAGic to add speech functions to the MAGic screen magnifier.

JAWS can be launched in the GVSU lab environment two ways:

- 1. Navigate to the JAWS 8.0 desktop icon and press Enter.
- 2. Open the Start menu (Windows key + Tab + Enter), select All Programs, select the JAWS 8.0 program group, select JAWS 8.0, and press Enter.

To quit JAWS press Insert + F4, or click the Close Application button in the upper right-hand corner of the JAWS user interface.

The JAWS user interface appears when the software is launched. The speech synthesizer automatically starts, and JAWS begins speaking. Visual users should minimize this window. All JAWS functions can be accessed from the keyboard. Visual users may wish to return the JAWS interface to customize settings. JAWS contains a context-sensitive help system called JAWS Keyboard Help that can be accessed at any time. Insert + F1 opens this feature.

A bit about JAWS Cursors

For simple text reading and navigation within documents or simple web pages, there is no need to be concerned with the various cursors. This section is provided for those users who with use JAWS for more complicated tasks.

JAWS has several reading "modes" called cursors. The cursor selected determines information is read out loud. There are five cursors available within JAWS – PC Cursor, JAWS Cursor, Virtual PC Cursor, Invisible Cursor, and Braille Cursor. Each cursor is described briefly below. JAWS will automatically choose between cursors based on the current task, but there are instances when a user may benefit from switching cursors manually.

- The PC Cursor is the primary cursor used in JAWS, and it corresponds to system focus. This is the cursor used when reading and editing text, and navigating within applications.
- The JAWS Cursor is used to the system mouse, and is used to access parts of Windows to which the PC Cursor cannot be moved. This gives access to information such as toolbar information. The JAWS Cursor can be restricted at 4 levels, which are related to where it can be moved on the screen.
 - Application window restriction (default) prevents the JAWS Cursor from moving from the parent window with the focus when using standard navigation keys.
 - Current window restriction prevents the JAWS cursor from moving from the current window it is in when using standard navigation keys. This is useful when reading controls, such as list boxes, because information outside the control is not read.
 - Frame restriction prevents the JAWS Cursor from moving from the current frame. This is useful when reading a defined area of an application.
 - Unrestricted allows free movement of the JAWS Cursor. This allows a user to browse the screen line by line.

To toggle between restriction levels press Insert-R.

- The Virtual PC Cursor is the default cursor used for web page reading.
 The PC Cursor cannot be used to read web pages because there is no insertion point within the text. The Virtual PC Cursor is used automatically when browsing the web using Internet Explorer.
- The Invisible Cursor allows movement without changing the position of the PC Cursor or mouse, and can be used to access information not currently available on the screen.
- The Braille Cursor is used in conjunction with a Braille display, and is beyond the scope of this manual.

To manually switch between the PC Cursor and the Virtual PC Cursor press NumPadPlus.

To manually activate the JAWS Cursor press NumPadMinus. To turn off the JAWS cursor press NumPadMinus twice.

JAWS Command Reference

JAWS application commands

Adjust JAWS verbosity	Insert + V, toggle with Spacebar
Switch speech synthesizer	Control + Insert + S
Screen echo toggle	Insert + S
Typing echo toggle	Insert + 2
JAWS window	Insert + J
Shut down JAWS	Insert + F4
Announce active configuration name	Insert + Q twice
Select scheme	Alt + Insert + S
Select language	Control + Windows key + L
Minimize all applications	Windows key + M
Run JAWS manager	Insert + F2

JAWS Help commands

Context-sensitive Help	Insert + F1
Keyboard help	Insert + 1
JAWS Help for applications	Insert + F1 twice
HotKey Help	Insert + H (toggles settings)
Application key Help	Insert + W

JAWS key commands for document reading

Say All	Insert + DownArrow
Go to next line during Say All	RightArrow
Go to previous line during Say All	LeftArrow
Increase voice rate during Say All	PageUp
Decrease voice rate during Say All	PageDown
Restore normal voice settings	Insert + Esc
Stop reading	Esc
Read character	NumPad 5
Read word	Insert + NumPad 5
Read character to left of cursor	LeftArrow
Read character to right of cursor	RightArrow
Read prior word	Insert + LeftArrow
Read next word	Insert + RightArrow
Read current line	Insert + UpArrow
Read current line to cursor	Insert + NumPad 7
Read current line from cursor	Insert + NumPad 9
Read prior line	UpArrow
Read next line	DownArrow
Read current sentence	Alt + NumPad 5
Read previous sentence	Alt + UpArrow
Read next sentence	Alt + DownArrow
Read prior paragraph	Control+ UpArrow
Read next paragraph	Control + DownArrow
Start skim reading	Control + Insert + DownArrow
Open skim reading options dialog	Control + Insert + Shift + DownArrow
Spell word	Insert + NumPad 5 pressed twice
Spell word with phonetic alphabet	NumPad 5 pressed twice, then arrows
Spell word with ASCII or hexadecimal	NumPad 5 pressed three times, then
equivalent	arrows
Announce color at cursor	Insert + 5
Announce font at cursor	Insert + F

JAWS Informational key commands

Read system tray icon list	Insert + F11
Read system tray contents	Control + Shift + F11
Announce application version	Control + Insert + V
Announce window title	Insert + T

JAWS navigational commands

Move to beginning of line	Home
Move to end of line	End
Scroll up one screen	PageUp
Scroll down one screen	PageDown
Move to top of prior page	Control + PageUp
Move to top of next page	Control + PageDown
Move to beginning of document	Control + Home
Move to End of document	Control + End

Web reading

JAWS allows web page reading using many of the same key commands that are used for document reading. JAWS announces the number of links on a web page frame, and announces the type of controls present. Web pages are navigated using the up and down arrow keys. Pressing the enter key follows a link.

Forms Mode

Forms mode provides easy access to web page forms and form controls. Without using forms mode a user may believe information is being entered in a web page form because JAWS echoes keystrokes, when in reality no information is actually being entered. Forms Mode solves this problem.

To use Forms Mode, use the Virtual PC Cursor to locate a form, and then press Enter to enter Forms Mode. Press Tab or Shift-Tab to move between forms controls. Press NumPadPlus to exit Forms Mode.

Basic web page reading and navigation commands

Say all	Insert + DownArrow
List links	Insert + F7
Next link	Tab
Prior link	Shift + Tab
Next visited link	V

Prior visited link	Shift + V
Open link	Enter
Open link in new window	Shift + Enter
Next non-link text	N
Prior non-link text	Shift + N
List headings	Insert + F6
Next heading	Н
Prior heading	Shift + H
First heading	Alt + Insert + Home
Last heading	Alt + Insert + End
Next heading at level	1 through 6
Prior heading at level	Shift + 1 through 6
First heading at level	Alt + Control + Insert + 1
Last heading at level	Alt + Control +_Insert + Shift + 1
-	through 6
Next table	T
Prior table	Shift + T
Select table	F8
List tables	Control + Insert + T
Jump to a table cell from within table	Control + Windows key + J
Return to previous cell	Control + Shift + Windows key + J
Current cell	Control + Alt + NumPad 5
Next cell	Control + Alt + NumPad 5
Prior cell	Control + Alt + LeftArrow
Cell above	Control + Alt + UpArrow
Cell below	Control + Alt + DownArrow
First cell	Control + Alt + Home
Last cell	Control + Alt + End
Current row	Windows key + NumPad 5
Next row	Windows key + DownArrow
Prior row	Windows key + UpArrow
Read from beginning of row to current	Insert + Shift + Home
cell	
Read from current cell to end of row	Insert + Shift + PageUp
Current column	Windows key + Period
Read from top of column to current cell	Insert + Shift + End
Read from current cell to bottom of	Insert + Shift + PageDown
column	

Web page form and control commands

First form in field	Insert + Control + Home
Next form in field	F
Prior form in field	Shift + F

Last form in field	Insert + Control + End
Next button	В
Prior button	Shift + B
Next combo box	C
Prior combo box	Shift + C
Next checkbox	X
Prior checkbox	Shift + X
Enter forms mode	Enter
Exit forms mode	Insert + F5
List buttons	Control + Insert + B
List combo boxes	Control + Insert + C
List edit boxes	Control + Insert + E
List radio buttons	Control + Insert + R
List checkboxes	Control + Insert + X
Enter / Leave multi-select mode	Shift + F8

JAWS mouse and cursor commands

Left mouse button	NumPadSlash
Right mouse button	NumPadStar
Left mouse button lock	Insert + NumPadSlash
Right mouse button lock	Insert + NumPadStar
Mouse Up	Alt + Shift + UpArrow
Mouse down	Alt + Shift + DownArrow
Mouse left	Alt + Shift + LeftArrow
Mouse right	Alt + Shift + RightArrow
PC Cursor	NumPadPlus (toggle)
Virtual PC Cursor	NumPadPlus (toggle)
JAWS Cursor	NumPadMinus
Invisible Cursor	NumPadMinus twice
Route PC Cursor to JAWS Cursor	Insert + NumPadPlus
Route JAWS Cursor to PC Cursor	Insert + NumPadMinus
Tether JAWS Cursor to PC Cursor	Control + Insert + NumPadPlus
Restrict JAWS Cursor	Insert + R