

JAWS 3.31 for Windows

High Tech Center Training Unit

Of the California Community Colleges at the
Foothill-De Anza Community College District

21050 McClellan Road
Cupertino, CA 95014
(408) 996-4636
(800) 411-8954

<http://www.htctu.fhda.edu>

Table of Contents

What's New in JAWS 3.31	1
JAWS 3.31 for Windows (95/98/NT)	15
JAWS 3.3 with Internet Explorer 4.01/5.0	31
JAWS 3.31 and Internet Explorer 4.01/5.0	35
JAWS 3.3 with Word 97, ver 8.0	43

What's New in JAWS 3.31

The topics listed below are the major new features or changes for Jaws for Windows version 3.31.

Changes between JFW 3.30 and 3.31

All new access to Internet Explorer 5.0— with the Virtual Cursor

JFW 3.31 access to Internet Explorer 5.0 has changed significantly. The most important change is the ability of JAWS to read a Web page as if it were in a word processor. Once the Web page has loaded, JFW will report that it is complete and the new virtual cursor begins to read the entire page. All standard reading features are available including the ability to select text and to use clipboard to copy and paste using standard Windows commands.

If the page being read contains frames, the user is notified with the number of frames present before beginning to read. At the end of a frame, the user is notified that the bottom of a particular frame has been reached and is alerted with the name of the next frame, and continues to reading.

Note: While reading in this virtual mode it is not necessary to have the text on the screen for JAWS to see it. JAWS and the virtual cursor can read text outside of screen margins. For visual users wishing to update the screen to see that section of the page JFW is reading, use the Screen Refresh command **Insert Esc** to move that portion of the web page currently being read.

How to Turn Virtual Cursor On and Off

It is not possible to use the reformat option (**Insert F5**) in Internet Explorer (IE) when the virtual cursor is in use. Therefore, if the user wishes to work in the web environment using the JAWS interface of version 3.30, which allows reformatting of web pages, it is necessary to turn off the virtual cursor.

1. With Internet Explorer open, enter **Insert 6**. The configuration file for **IE**, **browseuijcf**, is opened by the Configuration Manager. (To make this change throughout all applications, load the default configuration file from the Configuration Manager file menu and then do the following.)
2. Enter **Alt S** to open the **Set Options** menu.
3. Tap a for **Advanced Options**.
4. Enter **Alt V** to toggle the virtual cursor state off.

5. Save the **browseuijcf** file by entering **Ctrl S**.
6. Close the **Configuration Manager** with **Alt F4**.

Note: To temporarily toggle between Virtual PC cursor and PC cursor, press **Insert Z**.

Forms Mode

When in an area such as a list box or in an edit area in a form, tap **Enter** or press the Left Mouse Button (**Numpad Slash**) to work within that control with the actual PC cursor. Tapping the Plus key on the Numpad for the PC Cursor does not put the user in Forms Mode. When in Forms Mode, pressing the PC cursor key will take the user out of Forms Mode and return to the Virtual PC cursor.

Links List

The Links List (**Insert F7**) has been modified. In addition to activating a link by pressing Enter on the link in the list, it is now possible to choose the Move to Link button, which puts the user back on the existing page with the Virtual Cursor on the selected link. This function makes it possible to read within the context of the page where the link is located without activating it.

The Links List has also been changed to allow for **Incremental Searching**. This is useful when on a page with many links start with the same first letter, such as newspapers or a large site like CNN. To find the weather link, which might be one of many that start with W, type the word weather and JFW will jump through the list as the letters are typed until it lands on Weather.

The Links List can also be set to display all links, which is the default, or it is possible to choose to have only the visited links or unvisited links appear in the list. Three radio buttons in the Links List dialog control these options.

Additionally, it is possible to choose to have the links displayed alphabetically or in the order they actually appear on the page. The default is the actual order. A set of radio buttons in the Links List dialog will be found to switch this option.

A status bar has been added to the Links List dialog. The status bar reports the number of links in the list, indicates the current settings for all, visited, or unvisited links, and tells the user the order of how links are sorted: alphabetically or in original physical order. The Links List status bar can be read with **Insert Page Down**.

When reading a Web page, JFW also reports if a link has been visited previously, by saying "Visited Link" rather than just "Link" when reading.

Note: On a page with frames, the Links List (**Insert F7**) now provides a list of all links on the page rather than just the links in the current frame as in previous versions of JFW.

Support for Lotus Notes 5.0

JFW 3.31 now includes an extensive set of scripts and support for MSAA in Lotus Notes 5.0. For more information on this support, view the online Help in JFW Help Topics.

Improved Video Card Support

JFW 3.31 now supports more video cards and drivers. In addition, 32-bit device support has been added to allow for more than 256 colors and a wider range of resolution settings.

JFW Braille Viewer

The JFW Braille Viewer is a new feature that can be installed from the JFW 3.3 CD. It is used to provide a textual representation on the screen of the information sent to a braille device as when running JFW. This feature has been added to assist sighted trainers, script writers, and testers who may not be able to read braille, or who may not have a braille display available for use but still want to see what would be displayed if they had one. For more information, see the Braille Viewer directory on the JFW 3.3 CD.

Dictionary Manager

Enhancements to the Dictionary Manager include a wider edit area for words or phrases.

Options for displaying the path in Title line of all JFW Managers

All of the JFW managers (Script, Configuration, etc.) will now show only the file name that is opened followed by the manager name in the title line by default. If the user prefers to have the entire path displayed, make that change in the view menu of each manager.

Script Manager Improvements

The Script manager now supports incremental searching within a script file. This feature permits the user to type one letter at a time and finds strings that match the subverting. It is now possible to search backwards within the Script manager rather than just forward from the current cursor position.

New Scripts and Improvements to existing Scripts

New Scripts include:

AOL Instant Messaging
FrontPage and FrontPage Express
SPSS, Statistical Software used in many schools and universities
Microsoft NetMeeting
Free Agent

Improved Scripts include:

Default Scripts
MS Word 97 and 2000
MS Excel 97 and 2000
MS Access 97 and 2000
MS PowerPoint 97 and 2000
MS Outlook 98 and 2000

For more details on the application-specific improvements, hold down **Insert** and tap F1 twice quickly while in one of these programs for the application-specific Help pages.

Changes between JFW 3.2 and 3.31

New and Improved Eloquence for JFW Voices

Eloquence for JFW has improved its voices. The new voices are easier to understand and will speak much faster, if the user chooses. Wade has been replaced by Reed and is now the default PC cursor. Floe has been replaced by Shelly. To adjust specific voice settings, go open the JAWS Window with **Insert** J and choose one of the dialogs from the Voices menu.

Read or Navigate by Sentence or Paragraph

JFW now has the ability to read prior, current, or next by sentence or paragraph in all applications. To try this feature, use the appropriate keystrokes (see below). It will move the cursor either by sentence or paragraph and read the entire unit the cursor has been moved to.

Read Prior Sentence:	Alt Up Arrow
Read Next Sentence:	Alt Down Arrow
Read Current Sentence:	Alt Numpad 5
Read Prior Paragraph:	Ctrl Up Arrow
Read Next Paragraph:	Ctrl Down Arrow

Read Current Paragraph: **Alt Ctrl Numpad 5**

Note: When using the PC cursor, the document will scroll while reading to bring the entire sentence or paragraph onto the screen so that it is read in its entirety. When reading with the JAWS cursor, the screen will not be scrolled as JFW reads, and the user may hear an incomplete complete paragraph or sentence if text continues off the screen.

SayAll by Sentence or Paragraph

Using the Configuration Manager, JAWS can be set to speak by line, sentence, or paragraph. This affects the way in which text that is sent to the synthesizer is spoken. This feature can be used to produce more natural speech patterns. It is possible to toggle this feature at anytime without saving it for future sessions of JFW, or to make it a more permanent change by default in either a specific application or in all applications.

Note: Based on the SayAll setting (speak by line, sentence, or paragraph), pressing **Shift** during a SayAll will now jump ahead to the next line, sentence or paragraph. This is also true when listening to messages such as **Insert**

To Activate:

To toggle this function without changing the configuration file, use the Adjust JAWS Verbosity dialog, **Insert V**. In the list of items down arrow to **SayAll By**. Press the **Spacebar** to toggle this item. Then press **Enter** to return to the current application.

To make a more permanent change:

Run the **JAWS Manager** by pressing **Insert F2** and choose **Configuration Manager** from the list.

Note: To make this a default setting for all applications, open the **default jcf** file with the keystroke **Ctrl Shift D**. Otherwise, it will only take effect in the current application.

1. Go to the **Set Options** menu with **Alt S**.
2. From this menu, choose **Text Processing**.
3. From the **SayAll Group** of radio buttons, select either line (the default), sentence, or paragraph.
4. Press **Enter** to close the dialog and then **Ctrl S** to save the file before exiting Configuration Manager.

Read blank lines in SayAll

In previous versions of JFW, when SayAll was selected, blank lines were not spoken. By default in JFW 3.31 this is still true but the user now can modify a configuration setting to hear the word blank spoken when a blank line appears in a document. If there is more than one blank line, the user will be told how many lines there are.

To Activate:

Run the **JAWS Manager** by pressing **Insert F2** and choose **Configuration Manager** from the list.

Note: To make this a default setting for all applications, open the **default jcf** file with the keystroke **Ctrl Shift D**. Otherwise, it will only take effect in the current application.

1. Go to the **Set Options** menu with **Alt S**.
2. From this menu, choose **Text Processing**.
3. Check the box **Say Blank Lines** in the SayAll Group box with the **Spacebar**.
4. Press **Enter** to close the dialog and then **Ctrl S** to save the file before exiting Configuration Manager.

When reading with the SayAll feature, **Insert Down Arrow**, blank lines will be reported automatically. If this change was not made in the Default Configuration file, it will only take effect in that current application.

Skip Ahead to Next Unit

JFW 3.31 has the ability to skip ahead. Tap the **Shift** key when reading in SayAll or listening to Help Messages. For example, when reading in SayAll, tap the Shift key to jump to the next line, sentence, or paragraph. JFW will jump to the new location and continue to read in the new location. Try this by pressing **Insert H** to hear a JAWS hot key Help message. While it is speaking the list, pressing the **Shift** key will skip ahead to the next item on the list.

JAWS Message Voice

The Message Voice is a configurable option that tells JAWS to use a different voice when it speaks text that does not appear on the screen. An example of this can be seen in Excel from MS Office 97 or 2000, e.g., when moving in a spreadsheet and land in a cell that contains a formula, comment, or a hyperlink,

the Message Voice is used to indicate that the cell contains one or more of those items.

To adjust the Message Voice, open to the JAWS Window with **Insert J**, select **Voices** menu, and choose **Message Voice**.

System Tray Dialog Box

This feature displays icons from the System Tray in list form so that the user can easily review or change settings for each icon item.

Note: If the icons contain a ToolTip label, that ToolTip text will be displayed in the list even if the graphics had not previously been labeled.

To Activate:

Press **Insert F11**. In this System Tray dialog box, it is possible to make three selections regarding an objects listed in the system tray: a single right mouse click, a single left mouse click, and a left double click.

Read Clock from System Tray

To have the clock read from the System Tray, press **Insert F12**.

Text Attribute and Formatting Announcements

JFW will now, optionally, announce changes in text attributes, e.g., capitalization, font size, font style, color, indentation. This feature can be turned on and customized in the JFW Configuration Manager. It will not report changes during SayAll. However when reading by line, word, or character, the JFW message voice will report changes as they occur if this announcement option is enabled.

Note: In Windows NT 4.0, point size is not reported accurately.

To Activate:

While in an application such as a word processor, run the **JAWS Manager** by pressing **Insert F2** and choose **Configuration Manager** from the list.

1. Go to the **Set Options** menu with **Alt S**.
2. From this menu, choose **Format Options**.
3. Use the **Spacebar** to toggle **Speak Text Formatting** on or off.

Once this feature is enabled, it is possible to tab through this dialog to choose the various options to be reported. Choose the items by checking the associated check boxes. Only the items that are checked will be reported.

The choices include:

Attributes, Font, Point Size, Foreground Color, Background Color, Repeated Characters, Capitalization, and Indented Characters.

Note: When Attributes is checked, JAWS will announce formatting changes such as Bold, Underlined, Italics, and Strike through when they occur.

4. Press **Enter** to close the dialog and then **Ctrl S** to save the file before exiting Configuration Manager.

Auto Graphics Labeler

When used, this feature automatically assigns a text label to unlabeled graphics. Automatic graphics labeling is limited to graphics with associated ToolTips. When activated, JFW will begin to search the active application window and determine their labels from ToolTips. Depending on the number of graphics, this may take several seconds before it is completed and the user is informed.

To Activate:

When in the desired application window, press **Insert Ctrl G**.

Note: If ToolTips do not exist, graphics can be labeled manually. For more information on labeling graphics, refer to the Help Topics in the JFW Help System. See the section "Exploring the JFW Utilities."

Grade 2 Braille Translation

JFW 3.31 now supports grade 2 braille. This feature also makes it possible to expand the word that contains the active cursor, to computer braille for easy proofing. While on a line of text with grade 2 activated, route the cursor to a particular word or contraction and it will automatically be expanded to computer braille.

Computer braille is the default setting.

To Activate:

This feature can be toggled on or off from the braille display, which will only affect the current session of JFW. Once JFW is restarted, it will go back to the default setting. Check JFW Help for a particular type of braille display or the Keyboard Manager default file for the appropriate keystroke to toggle its status.

To change the default setting from computer braille to grade 2, follow the steps below.

Run the **JAWS Manager** by pressing **Insert F2** and choose **Configuration Manager** from the list.

Note: To make this the default setting for all applications, open the **default jcf** file with the keystroke **Ctrl Shift D**. Otherwise, changes will only take effect in the current application.

1. Go to the **Set Options** menu with **Alt S**.
2. From this menu, choose **Braille Options**.
3. Check the **Enable Translator** box in the grade 2 Group box with the **Spacebar**.

Note: The Expand Current Word check box is checked by default and can be found in this group box as well.

4. Press **Enter** to close the dialog and then **Ctrl S** to save the file before exiting Configuration Manager.

HJPad Word Processor Training Tool Application

HJPad is a basic word processing program in which the user can create, open, spell check (F7), format, and save documents. Also, five sample dialogs have been created in HJPad for the purposes of training the new user. Now users can learn how to operate the many dialog controls found throughout the Windows operating system using these sample dialogs and without the concern that they are altering valuable information in another program.

In HJPad, choose from the five dialogs located in the Tools/Sample Dialogs submenu: Single Page 1, Single Page 2, Multi-Page, List View, and Tree View.

Note: Using **Shift F1** on all of the controls within these dialogs, will provide a pop up Windows Help message for information regarding that particular control.

Window List

The Window List allows the user to switch between, close, or see the state of applications in their system. Applications that are running appear in alphabetical order in the List view, with the first application highlighted. Users with many application windows open, may find this to be a faster way to switch between applications than using Alt **Tab**.

To Activate:

Press **Insert F10** at any time in Windows, and the Window List will pop up.

Available actions are:

Switch To— Restores the highlighted application and gives it focus. This is the Default button.

About— Brings up a dialog box with a copyright message and the version of Window List.

Close— Closes the highlighted application.

Exit— Exits the Window List without changing the state of any application.

Maximize— Maximizes the highlighted application. (if available)

Minimize— Minimizes the highlighted application. (if available)

Run— Opens the Run dialog. This is the same as choosing Run from the Start menu.

Key Labeling/Silencing

A customizing feature activated when Typing Echo is turned on. Users can silence any or all alphabetical or numeric keys as desired. In addition, it is possible to change the assigned label for these keys that is spoken when the key is pressed, e.g., change the spoken label of Caps Lock to Caps.

To Activate:

Run the **JAWS Manager** by pressing **Insert F2** and choose **Configuration Manager** from the list.

Note: To make this the default setting for all applications, open the **default jcf** file with the keystroke **Ctrl Shift D**. Otherwise, it will only take effect in the current application.

1. Go to the **Set Options** menu with Alt S.

2. From this menu, choose **Keyboard Options**.

This multi-page dialog lists of all the Keys which can be silenced or their labels can be modified. Use **Insert F1** on each control for more information on adjusting and using controls in this dialog.

3. Press **Enter** to close the dialog and then **Ctrl S** to save the file before exiting Configuration Manager.

Announcement of Cursor Shape

In Windows 95 and 98 (only), the user can now elect to hear JAWS announce changes in cursor shape. When the feature is turned on, the user is notified by the Message Voice if the cursor/mouse pointer changes shape such as Pointer or I Beam. This option is application-specific or can be set by default for all applications.

Additionally, JFW 3.31 provides a keystroke, **Insert Ctrl Shift C**, to announce the current shape of the cursor at anytime.

Note: The Cursor Shape features are not supported in Windows NT 4.0.

To Activate:

Run the **JAWS Manager** by pressing **Insert F2** and choose **Configuration Manager** from the List.

Note: To make this the default setting for all applications, open the **default jcf** file with the keystroke **Ctrl Shift D**. Otherwise, it will only take effect in the current application.

1. Go to the **Set Options** menu with **Alt S**.
2. From this menu, choose **Cursor Options**.
3. Check the box for Notify when cursor changes shape with the **Spacebar**.
4. Press **Enter** to close the dialog and then **Ctrl S** to save the file before exiting Configuration Manager.

Note: **Insert Control Shift C** will announce current cursor shape regardless settings in Configuration Manager.

Mouse Click Interrupts Speech

JFW 3.31 will now interrupt speech if a user clicks the mouse buttons. Previously speech was interrupted only when the keyboard was used to click the mouse.

Improved Scripting Capabilities

A number of new and powerful additions have been made to the JFW Script language. For further information, consult the Script Documentation files in the JFW Script Manager.

Extended Demo Mode

JAWS for Windows runs in demo mode for up to 40 minutes. This allows temporary operation of JFW without an installed authorization key or an authorization Key from a previous version of JFW.

Improved Laptop Keyboard Layout

The keyboard layout for laptop computers has been redesigned.

Network Authorization

Now network users of JFW 3.3 with proper authorization can work on any computer in their network as long as the computer is mapped to the drive containing the authorization key. This feature applies to Windows 95 and 98, Windows NT, Novel, and Unix servers and stations.

Apollo 2 External Synthesizer supported in Windows NT

Drivers for the Apollo 2 Synthesizer are now provided to allow this synthesizer to work in NT 4.0 with JFW 3.3. Previously, it was only supported in Windows 95 and 98.

Enhanced Support for Popular Applications

Support for many popular applications can be found in JFW Help in the "Using JFW with Popular Applications" section.

JFW now supports Internet Explorer 5, Office 2000, PowerPoint 97, RealPlayer G2, and GoldMine 4.0 contact management software, and improved scripts have been provided for Access 97, Excel 97, Outlook 98, Word 97, Eudora Pro, and Eudora Lite. Review the specific Help topic or explore the Keyboard Manager when in those applications for specific details.

Microsoft Text-to-Speech on the CD ROM

The Microsoft software synthesizer is now included on the JFW 3.3 CD ROM and is supported in Windows 95, 98, and NT 4.0. It is not installed by default but users wishing to install it can view the **readme.txt** on the CD ROM for details and instructions.

Microsoft 1E5 Support on the CD ROM

The Microsoft Internet Explorer Browser, 1E5, is now included on the JFW 3.31 CD ROM and is supported with all the features offered in our support of IE 4.01. It is not installed by default but users can install it if they choose. View the **readme.txt** on the CD ROM for details and instructions.

Notes:

JAWS 3.31 for Windows (95/98/NT)

Publisher:

Henter-Joyce, Inc.
11800 31st Court North
St. Petersburg, FL 33716-1805
(800) 336-5658
<http://www.hj.com>

Retail Cost: \$ 795/1495

(See Notes section for more
Purchase Information and
Software Maintenance
Agreement information)

System Requirements:

To use JAWS for Windows, version 3.31, you need:

- A personal computer that will run the Microsoft Windows® 95 operating system or later, or the Microsoft Windows NT® Workstation 4.0 or later.
- If Eloquence, the free software synthesizer for JFW software will be used, a Windows 95 or Windows NT compatible sound card is necessary. If Eloquence is not used, a JFW compatible hardware synthesizer such as the DECtalk Express is required.
- 30MB of available hard disk space required.
- VGA or higher-resolution video adapter (Super VGA 256-color recommended).

As with most systems, the faster the processor and the more memory your computer has the better the performance of your computer and our product.

JFW 3.31 for Windows 95 is a true 32-bit program, and will not work in the Windows 3.1x environment. For the convenience of those who need speech access in the Windows 3.1x environment, JFW 2.0 is also included on the installation CD.

JAWS supports Microsoft Word under Microsoft Windows 95, 98 and Microsoft Windows NT. When using Microsoft Windows NT, Service Pack 4 or later is required. For system requirements for Microsoft Word, refer to the Microsoft Word documentation. For most complete Web access, MS Internet Explorer (IE) 4.01 or 5.0 must be used. Version 4.01 of IE is on the JFW 3.2 distribution CD.

Description:

JAWS for Windows is a screen reader that uses the numeric keypad for its basic reading functions. A number of interactive hot key commands are available to change settings easily; these generally are prefixed by the **Insert** key and then a letter, number or function key from the alpha side of the keyboard.

There are two particularly strong features in JAWS which help the user:
Verbosity Level and Help.

1. There are three levels of verbal assistance provided to the user: a lot (beginner), some (intermediate) and little (advanced). The default full verbosity level is very informative for the new user.
2. The extensive help functions in JAWS for Windows are well developed. The on-line help for JAWS is rich, and there is included an additional level of help: context-sensitive help.

Extensive information about the Windows environment is included with the JAWS documentation. A developed scripting language also comes with JAWS so that advanced users may configure JAWS for unique applications or customize an existing application configuration.

Basic Commands:

Working with Context Sensitive Help

JAWS has a powerful on-demand Help feature that provides verbal information and/or instructions for a current task. At any time:

- use **Insert F1** to hear screen sensitive help—useful for learning windows.
- use **Insert F1,F1** to bring up application-specific help window in major applications: e.g., Word.
- use **Insert H** to hear JFW hot key commands and/or context-sensitive, application-specific help.
- use **Insert W** to hear Windows keyboard commands.

Working with Keyboard Help Mode

JAWS supports a user-exploration mode. This function, called the Keyboard Help Mode, is toggled on by **Insert-One** (from the number row on the alpha portion of the keyboard). When this function is turned on, all letter keys echo their identity, and all command sets, e.g., **Insert V**, do not actually perform a function, but instead are identified and their function described. This mode is toggled off by entering **Insert-One**.

About the JAWS Interface

JAWS uses the numeric keypad as its keyboard base for special reading commands. JAWS now supports three main cursors:

1. PC Cursor
2. JAWS Cursor
3. Virtual Cursor

The PC cursor is directly linked to system and application operations as well as basic keyboard operations. To activate the PC cursor, press **Numpad Plus**. To activate the JAWS cursor, press **Numpad Minus**. Only one can be active at any one time.

The JAWS cursor is directly linked to the Microsoft Windows mouse pointer. Like the mouse pointer, it is possible to move around windows with the JAWS cursor while the PC cursor remains at its current location. Likewise, the JAWS cursor stays stationary when the PC cursor moves and remains in a fixed location until activated. As in the case of the mouse pointer the JAWS cursor is not affected when you type.

It is possible to toggle between the two cursors, and it is also possible to route one cursor to the other cursor. **Insert Minus** routes JAWS to the PC cursor. **Insert Plus** routes the PC cursor to the JAWS cursor.

The virtual cursor is not visible on the screen but it has been designed to perform smart automatic reading of areas. Unless turned off, this cursor is automatically on when working in Internet Explorer. Because of this new virtual cursor, JAWS is now able to accurately read columnar text on web pages, and can also discriminate between unrelated text like links and body text.

Interactive reading is also possible by using the standard arrow keys. There are two types of commands in JAWS: the majority are reading commands issued from the numeric keypad, but there also are interactive settings commands issued from the alpha keyboard.

How JAWS Settings are Managed

Basic screen reader settings such as voice pitch and rate, type of keyboard announcement, etc., are accessible through a menu bar in the JAWS Settings Window. Use **Insert J** to bring up the JAWS application window. (Although many functions available through the menus can be configured by hot key commands.) There are five menu options:

- 1. File** (use to have JAWS start first, to change from full to laptop keyboard, or to exit the JAWS program)
- 2. Voices** (use to change speech rate)
- 3. Utilities** (to access program managers, e.g., Configuration Manager Keyboard Manager, Dictionary Manager, Script Manager—for advanced use)
- 4. Language** (use to change languages, if installed, or to change synthesizers, or select "no speech")

5. **Help** (This is an excellent source of information about JAWS: keyboard commands; specialized help for major applications; a "What's New" section especially useful when installing and using an upgrade to current version.1)

Refreshing the Screen

Sometimes JAWS does not seem to read properly, and when this is suspected, refreshing the screen display with the JAWS command **Insert Escape** will usually restore normal reading function.

How to Open a Menu

1. Tap the Alt key and then tap the first letter of the menu option. Once the Alt key has been tapped, it is possible to arrow across through the main menu options.
2. Move down in the menu with the **Down** arrow key.
3. Tap the **Enter** key after hearing the desired topic announced to open its settings box.

Interactive Hot keys from the Alpha Number Row

Insert-1 Toggles the keyboard help on or off.

Insert-2 Toggles through the keyboard echo function: characters, words, or none.

Insert-3 Use this before entering an application command that is identical to a JAWS command; JAWS will ignore the command.

Insert-4 Toggles to standard or active graphics mode. Use active graphics mode if JAWS does not read all tool bar buttons.

Insert-5 Reads color of text at cursor.

Insert-6 Hot key to bring up the Configuration Manager.

Insert-7 An advanced command to work with types of window classes.

Insert-8 Brings up Keyboard Manager, an advanced component. The Keyboard Manager allows you to create application specific key map files.

Insert-9 Brings up Frame Manager, an advanced component.

Insert-Zero Brings up JAWS Script Manager, an advanced component.

Interactive Hot Keys from the Alpha Keyboard

Insert B Read all of dialog box in Tab order. This allows the user to understand what is in a dialog box before attempting to Tab through its topic area.

Insert C In some applications will read word in context (e.g., spell check).

Insert D Brings up Dictionary Manager.

Insert F Identify font name, size and attribute of text at active cursor.

Control Insert F Brings up JAWS Find dialog.

Insert H Context-sensitive hot key application-specific help is verbalized.

Insert E In a dialog box or special window, announces what button will be selected if **Enter** is tapped.

Insert J Bring JAWS window forward. If JAWS is minimized, this will maximize the window; if JAWS is open but covered, this will bring the window forward.

Insert R Restrict action of JAWS cursor. If this is turned on, JAWS will read only in the active child window. When restriction is toggled off, JAWS cursor can read anywhere on screen display.

Insert S Toggle through screen echo settings.

Insert T Read title bar of window.

Insert V Brings up Adjust JAWS Verbosity list box. Tapping the Space Bar toggles through verbosity levels of selected item in list box. Specific verbosity levels may be set for user verbosity preference, style change detection, context detection, screen echo, typing echo, say all by, punctuation level, format and attribute changes speak, graphics verbosity, ANSI character verbosity, braille verbosity, and mute synthesizer.

Insert W Speaks general Windows help.

Insert X Say frame at cursor; says the text in the frame that the cursor is in.

Insert F4 Unload JAWS.

Insert F6 Minimize all applications on the desktop.

Speech Pad Minus Turn on JAWS Cursor.

Speech Pad Plus Turn on PC Cursor. The PC cursor tracks the insertion point or the highlighted selection cursor.

Insert Up Arrow Read Current Line.

Up Arrow Read Prior Line.

Down Arrow Read Next Line.

Left Arrow Read Prior Character.

JAWS Cursor Speak Prior Character.

PC Cursor Select prior icon, select prior menu item, or move insertion point to the prior character.

Right Arrow Read Next Character.

JAWS Cursor Speak next character.

PC Cursor Select next icon, select next menu item, or move insertion point to the next character.

Speech Pad 5 Read Current Character.

Insert Left Arrow Read Prior Word.

Insert Right Arrow Read Next word.

Insert Speech Pad 5 Read Current Word.

Insert Speech Pad 5 (pressed twice within a half second) Spell Current Word.

Page Up Move Up One Screen or to Top of Window.

JAWS Cursor Move to top of active application or child window depending on the setting for JAWS cursor restriction.

PC Cursor Move insertion point up one screen.

Page Down Move Down One Screen or to Bottom of Window.

JAWS Cursor Move to bottom of active application or child window depending on the setting for JAWS cursor restriction.

PC Cursor Move insertion point down one screen.

End Move to the End.

JAWS Cursor Move to the end of text on the current line or to the last graphics on current line.

PC Cursor Performs the End function for the application. For example, it could move the insertion point to the end of text on the current line or to the last item in a list box.

Home Move to the Beginning.

JAWS Cursor Move to the beginning of text on the line or to the first graphics on the line.

PC Cursor Performs the Home function for the application. For example, it could move the insertion point to the beginning of text on the current line or to the first item in a list box.

Insert Home Speak From the Left Edge of the Window to the Cursor.

Insert Page Up Speak From the Cursor to the Right Edge of the Window.

Insert End Read Top Line of Window.

Insert Page Down Read Bottom Line of Window.

Insert Delete Speak the Coordinates of the Active Cursor.

Insert Minus Route (move) the JAWS Cursor to the Location of the PC Cursor.

Insert Plus Route (move) the PC Cursor to the Location of the JAWS Cursor. This moves the insertion point or selection cursor to the location of the JAWS cursor and is equivalent to a single click of the left mouse button.

Insert Escape Refresh Screen.

Delete Delete character at cursor; does not announce character deleted; instead announces the new character at the cursor.

Alt Delete Announce active cursor position (in pixels).

Insert Delete Announce PC cursor position in row and column position.

Alt Insert Toggle between insert and overwrite editing modes.

Alt Down Arrow Read dialog prompt.

Insert 3 (from alpha) Pass next command through to application.

Plus Invoke PC cursor.

Minus Invoke JAWS cursor.

Minus (tapped twice) Invoke invisible cursor from either PC or JAWS Cursor.

Additional Interactive Commands

Insert F11 Say Taskbar.

Insert F12 Say System Tray.

Control Shift H Say hotkey for current control focus.

Insert Control Down Arrow Say Help window.

Insert Shift Down Arrow Say selected text.

Insert Tab Say window prompt and text.

Insert E Say default button of dialog box.

Intermediate Use:

How to Hear All Dialog Options in Settings Box

1. Hold down the **Insert** key and tap the **b** key. JAWS will announce the entire contents of the box in the order that the **Tab** key will take. Current settings are not announced.

How to Navigate with Tab Key through a Dialog Box

1. Tap the **Tab** key to navigate forward through options.
2. **Shift Tab** will navigate backward through options.
3. JAWS will announce each topic box and its current setting.
4. Use the Arrow keys to move up and down within the topic box to hear other possible settings. Each setting is automatically selected as it is read and automatically de-selected if the arrow is moved off the selection.
5. Once the right setting for the topic is selected, resume with the **Tab** key to move to the next topic box.
6. If a **scroll bar** is announced in a dialog box, the **Right** and Left arrows will move the **scroll bar** selector point. For example, a scrollbar is used to set speech rates and volume.
7. A **check box** can be selected or de-selected by tapping the **Spacebar**.
8. Use of **Insert F1** may bring up additional information about a dialog box element.

Selecting Text

Key commands for selecting text in Windows applications are listed elsewhere in the training guide. Refer to them for more information. What follows is one way to select two lines of text and read them before deciding to delete, move or copy the text.

1. Type one or two sentences so that text appears on two lines.
2. Make sure the PC cursor is active by tapping the **Insert Del** key to check status.
3. Move the cursor to the beginning of the first line of text.
4. Hold down the **Shift** key and tap the **End** key to select text to end of line. The text will be read.
5. Still holding down the **Shift** key, tap the **Down** arrow key to select the next line of text. The text will be read.
6. Text can be de-selected by tapping the **Slash(/)** key on the numeric keypad.

Copying Selected Text to Another Position in a Document.

1. Enter **Control C** to copy selected text to the clipboard.
2. Move the cursor to another position in the open document.
3. Enter **Control V** to place the copied text.

Deleting Selected Text

Once text has been selected, enter **Control X**.

Moving Selected Text to Another Position in a Document

When text has been cut, move cursor to new position in document and enter **Control V**.

Formatting Text once it has been selected

The following keyboard shortcuts will format selected text:

Control B	Bold
Control U	Underline
Control Shift Z	Remove formatting and return text to normal

Advanced Use:

How to use the JAWS cursor like a Mouse Pointer

The JAWS cursor can be used like a mouse pointer with the mouse keys that are described below. To move the Mouse Pointer, use speech pad keys:

Slash (/) Single Left Mouse Click on speech pad.
This selects the item at the JAWS cursor.

Slash (/) Twice in a second, Double Left Mouse Click.
This chooses the item at the JAWS cursor.

Insert Slash (/) Drag an Object on the Desktop.
Use the JAWS cursor to point to the object, press **Insert** and then **Slash (/)** to lock the mouse pointer on the object, then use arrow keys to drag it. Press **Insert Slash (/)** to release the drag command.

Asterisk Right Mouse Click on speech pad.

Restricting Movement of the JAWS Cursor

Insert R Turn JAWS Cursor Restriction On or Off.

If several application windows are on the desktop, it is possible for them to overlap or totally cover one another. This means that parts of several windows could be visible around the active application window. The PC cursor stays within the active window, which means it will not read information from the surrounding windows. The JAWS cursor also stays within the active window.

The restriction setting does not affect the movement of the PC cursor. When restriction is turned on, the JAWS cursor is restricted to the active section of the screen where it is currently located. If it is in a dialog box when restriction is turned on, it can only read the active dialog option. When using the JAWS cursor restriction, in order to ensure that the cursor is being restricted to the proper section of the desktop, it is best to do the following:

1. Route the JAWS cursor to the location of the PC cursor with **Insert Minus**.
2. Turn on JAWS cursor restriction with **Insert R**.

How to use the JAWS Configuration Manager

The Configuration Manager contains a Set Options menu. When you choose a Set Options menu item, a dialog opens. The Configuration Manager includes the following menu options: User, Text Processing, Window Classes, Graphics and Symbols, Cursor, Keyboard, Braille, and Advanced. These dialogs enable you to configure your applications to your own specifications. Use the hotkey **Insert** (alpha keyboard) 6, or

1. Press **Insert J** to activate the JAWS application.
2. Press **Alt U** to open the Utility menu item.
3. Press C to open to Configuration Manager.

Settings Handled by the Configuration Manager

Use the command for context-sensitive help, **Insert F1**, when the focus is on an element in a configuration dialog, JAWS will speak a help message regarding the nature of the element (e.g., typing interrupt), its function, and its default setting.

- **User Options**

These include typing echo, screen echo, verbosity level, typing interrupt, reading interrupt, key repeat and Insert key mode.

- **Text Processing**

These include punctuation mode, filter repeat characters, number processing, list item, mixed case processing, dictionary processing, speak window type first, speak window state first.

- **Graphics and Symbols**

These include graphic verbosity, ANSI character verbosity, graphic dimensions, graphics mode toggle.

- **Advanced Options**

Among these options is found the "go-to-sleep" checkbox. This can be used to silence JAWS in a particular application. To silence JAWS in a particular application, open the application itself, with JAWS running; open the Configuration Manager and select the go-to-sleep option from the Advanced menu. Save the change. Now, if JAWS is loaded and this application loads in, JAWS will not speak in the application at all, but will in all others.

There are other main types of options, but they relate to advanced use.

How to use the JAWS Keyboard Manager

The Keyboard Manager controls the assignment of keystrokes to JAWS activities. It is important to understand a little about scripts before learning about Keyboard Manager. All JAWS activities assigned to keystrokes are scripts. A script is a small computer program that controls how JAWS reacts and what you hear. To open Keyboard Manager, use **Insert** (alpha keyboard) 8, or

1. Press **Insert J** to activate the JAWS application.
2. Press Alt U to open the Utility menu item.
3. Press K to open the Keyboard Manager.

How to use the JAWS Dictionary Manager

This application allows you to alter the JAWS Dictionary. The JAWS Dictionary is a collection of files that stores all the correctly pronounced words. The Dictionary Manager is the tool that enables you to manage your own JAWS Dictionary files. Press INSERT+D to start the Dictionary Manager and add words to you dictionary.

Use the Dictionary Manager to alter words for specific applications or all your applications. If you want your changes to be saved to all your applications, save the changes to the default file.

1. Press **Insert J** to activate the JAWS application.
2. Press Alt U to open the Utility menu item.
3. Press K to open the Keyboard Manager.

How to use the JAWS Frame Manager

You can use Frame Manager to create and work with frames. Frames are boundaries on a screen for which you define a JAWS action.

- Use a frame to define an area of the window or screen to be spoken automatically.
- Use a frame to define an area of the window or screen to be spoken when a keystroke is pressed.
- Use a frame to define an area of the window or screen for JAWS to ignore.
- Use a frame to define an area of the window or screen for JAWS to treat differently than other areas.

To open Frame Manager, use **Insert 9**, or

1. Press **Insert J** to activate the JAWS application window.
2. Press **Alt U** to open the Utility menu item.
3. Press F to open the Frame Manager.

How to use the JAWS Script Manager

Small script files are created, edited and compiled with Script Manager. A script is a small computer program that controls how JAWS reacts and what you hear. For example, when Insert 5 is pressed, the SayWord script runs. In addition to just saying the current word, it also checks to see if Insert 5 has been pressed twice, in which case it spells the word. Groups of scripts are stored in the script files. There are two basic types of script files: default and application. The default script files contain those scripts and other things that are always available. Application script files contain scripts and other things that are only available when a particular application program is running.

1. Press **Insert J** to activate the JAWS application.
2. Press **Alt U** to open the Utility menu item.
3. Press S to open the Script Manager.

Notes:

Pricing:

For extensive information about pricing, site licenses and software maintenance agreements (SMA), use this web address: www.hj.com/JFW/JFWPricing.html

Installation:

Windows NT 4.0 must have Service Pack 4 installed to use MS Active Accessibility or there will be differences in functionality between the Win 95 and NT versions in applications that use Active Accessibility, e.g., MS Office.

You must have workstation administrative permissions when installing JFW. Specifically you must have the permissions necessary to write into the registry. You must uninstall any product which places entries in the video chain of NT. Most prevalent of these products are remote control products such as Remotely Possible, PC Anywhere, etc.

If you are having trouble installing JFW or you are in a blue screen cycle, get to a point where you can enter a WinMSD from the run on the start menu. The video chain we are referring to is the list of file(s) in the driver section of the display tab. Usually the actual driver in use is a DLL at the rightmost position of the chain. Currently JFW needs to install its driver JFWVID.DLL immediately to the left of the actual driver. If you find another entry between JFWVID.DLL and the target driver, JFW will not work.

It is also possible to unload the JFW NT video driver with the following command from a command line window: **c: \jfw \ drjaws /setjv=r**
JFW will reset itself when restarted. To reinstall the driver use the following command: **c: \jfw \ drjaws /setjv=i**

When installing on a dual boot system with NT and some other OS, you must first install under NT. After installing under NT, you can reboot to Win 95 or Win 98 and reinstall JFW. This will avoid authorization conflicts.

Note that with JFW NT version, the authorization must be on the hard disk and not on a floppy as is possible with the Win 95 version.

Network:

Site license costs: for 5 users, \$2,400; for 10 users, \$4,000; for 15 users, \$6,000; for 20 users, \$6,500. The SMA or Software Maintenance Agreement is ten percent of the JFW license price and entitles the district to the next two JFW upgrades.

Network Authorization

Now network users of JFW 3.31 with proper authorization can work on any computer in their network as long as the computer is mapped to the drive containing the authorization key. This feature applies to Windows 95 and 98, Windows NT, Novel, and Unix servers and stations. For information on obtaining network authorization, please contact the Henter-Joyce Sales Department.

The obvious drawback to installing one copy of JAWS for Windows on the network is that it cannot be customized for each user. If you had two users of JFW, they would be accessing the same configuration files. These files cannot be customized for each user within the same copy of JAWS for Windows. As a workaround to this situation, If you want to have two people on the same network with different configurations, you can install two copies of JAWS for Windows in separate folders on the network. As long as these two people access their own folders and run JFW from within their own folders, they should be able to customize their own configuration files.

JAWS ver. 3.3

PC CURSOR FUNCTIONS

libraty/pdceyadjaw

<p>Num Lock Key - off</p> <p>7 Home</p> <p>Reads beginning of text line or first item in list box. Ins + 7 = reads from beg. of line up to cursor, but not including cursor.</p>	<p>/ left mouse button</p> <p>8 +</p> <p>Reads prior line.</p> <p>Ins + 8 = reads whole line</p>	<p>* right mouse button</p> <p>9 PgUp</p> <p>Moves insertion point up one screen. Ins + 9 = reads from cursor to end of line.</p>	<p>-</p> <p>JAWS cursor</p> <p>ins + - = routes to PC cursor</p> <p>+</p> <p>PC cursor on</p> <p>Ins + + = routes to JAWS cursor</p>
<p>4 +</p> <p>Select previous icon or menu item or move insertion point to previous character. Ins + 4 = reads previous word</p>	<p>5</p> <p>Reads current character.</p> <p>Ins + 5 = reads current word. Ins + 5 twice to spell word.</p>	<p>6 --></p> <p>Select next icon or menu item or move insertion point to next character</p> <p>Ins + 6 = reads next word</p>	
<p>1 END</p> <p>Reads end of line or list box.</p> <p>Ins + 1 = reads top line of the window</p>	<p>2 40</p> <p>Reads next line down below.</p> <p>Ins + 2 = reads to end of file or box</p>	<p>.3 PgDn</p> <p>End of line or list box</p> <p>Ins + 3 = reads last line of the window (status line).</p>	<p>Enter</p>
<p>0 Insert</p> <p>With Alt, toggle between Insert and Overwrite mode.</p>		<p>. Delete</p> <p>With Alt = speaks active cursor</p>	

JAWS ver. 3.3

JAWS CURSOR FUNCTIONS

librarykeyadjaw

<p>Num Lock Key - off</p> <p>7 Home</p> <p>Reads beginning of line. Ins + 7 = reads from beg. of line up to cursor, but not including cursor.</p>	<p>/ left mouse butto</p> <ul style="list-style-type: none"> - single click selects - double click chooses - shift + / = locks left mouse button <p>8 +</p> <p>Reads previous line.</p> <p>Ins + 8 = reads whole line</p>	<p>␣ right mouse button</p> <ul style="list-style-type: none"> - right button mouse click - ins + * = locks right mouse button. <p>9 PgUp</p> <p>Reads top of application or child window.</p> <p>Ins + 9 = reads from cursor to end of line.</p>	<p>-</p> <p>JAWS cursor on</p> <p>ins + - = routes to PC cursor</p> <p>+</p> <p>PC cursor on</p> <p>Ins + + = routes to JAWS cursor</p>
<p>4 +</p> <p>Reads previous character.</p> <p>Ins + 4 = reads previous word</p>	<p>5</p> <p>Reads current character.</p> <p>Ins + 5 =reads current word. Tap twice to spell word.</p>	<p>6 4</p> <p>Reads next character.</p> <p>Ins + 6 = reads next word</p>	
<p>1 END</p> <p>Goes to end of line and reads last word or graphic.</p> <p>Ins + 1= reads top line of the window</p>	<p>2 +</p> <p>Reads next line down below.</p> <p>Ins + 2 = reads from cursor to end of window (say all mode). Ctrl + 2 = reads active child window.</p>	<p>3 PgDn</p> <p>Reads bottom of application window or child window</p> <p>Ins + 3 = reads last line of the window (status line).</p>	<p>Enter</p>
<p>0 Insert</p> <p>With Alt, toggle between Insert and Overwrite mode .</p>	<p>. Delete</p> <p>Deletes character at cursor With Alt = speaks active cursor</p>		

JAWS 3.3 with Internet Explorer 4.01/5.0

Getting Started

Make sure that Internet Explorer (IE) is installed properly on the system and running correctly. Henter-Joyce suggests not installing the Active Desktop component with IE.

Set Appropriate Options

Henter-Joyce also suggests doing the following:

- From the View menu, select **Internet Options**. From the **General** panel, click on the **Accessibility** button. In this Accessibility dialog, make sure "Ignore colors specified on Web pages" is checked.
- Under **Advanced** options, there is another **Accessibility** section along with other general options. Make sure the following are checked:
 - Move system caret with focus/selection changes
 - Always expand "Alt" text for images
- Under the **Browsing** section, make sure the following are **not** checked:
 - Show channel bar at startup
 - Show friendly URLs
 - Use smooth scrolling
 - Enable page transitions

If the Internet connection is slow, it may be desirable to turn off Multimedia options to increase speed when loading pages.

Basic Use:

The current version of JAWS takes advantage of advances in browsers and internet standards and provides three unique commands which radically eliminate much of the difficulty which can accompany the process of reading the Internet via screen reader. These three commands function only in Internet Explorer 4.01 or 5.0, and they provide a quality of access very different from that which can be achieved through current versions of Netscape. For this reason, the HTCTU currently is suggesting that IE 4.01 or 5.0 be the browser of choice for students who use JAWS to browse the Web.

Three Important Commands

Insert F5

Reformat Document

This command reformats a multiple column page into a linear format and makes it more readable with speech. This command provides an enhanced level of web access for the screen reader user.

Insert F7 Select a Link

This command brings up a dialog box containing a list of the links present on the page. Select a link by using arrow keys or the first letter of the link. Tap **Enter** to open the selected link. This is particularly useful when the user needs to get to a link on a page which contains many other links.

Insert F9 Select a Frame

This command brings up a dialog box containing a list of the frames present on the page. Select a frame by using arrow keys or the first letter of the frame name. Tap **Enter** to go to the selected frame.

How to Read an Internet Explorer Web Page

If the web page being read has a simple interface, i.e., no multiple columns, JAWS will read everything intelligently. A complex page will require reformatting with the JAWS **Insert F5** command. JAWS automatically reads the onscreen portion of a new page from the top to the bottom.

Getting to Links

Links will not be audibly identified during automatic reading unless the page has been reformatted with **Insert F5**. To go from link to link, tap the **Tab** key. Use of the Tab key—which only goes to link items—provides a discovery means of learning what links are on the page. The first use of the Tab key will always start at the top of the page even if the user has read far beyond the top of the page.

Tab Move to Next Link

Moves to the next hypertext link or control in the page. If in a dialog, moves to the next control. If in a web page, moves to the next hypertext link or control.

Keystrokes and Descriptions

Shift Tab Move to Prior Link

Moves to the prior hypertext link or control in the page. If in a dialog, moves to the prior control. If in a web page, moves to the prior hypertext link or control.

Insert Tab Say Selected Link

Says the focused link or control. If in a dialog, speaks the current control. If in a web page, announces the link or control with focus.

Navigating Between Screens

Control Insert Down Arrow Read Current Screen

Reads that portion of the web page which is visible on the screen from the top with the JAWS Cursor. Only the visible portion of the current page will be read by this command for the JAWS cursor. It is possible to stop reading by tapping the **Control** key. To begin reading from the same place, use **Insert Down Arrow**. Use **Control PageDown** to move to the next screen.

Control Page Down Read Next Screen

Does a page down and begins reading with the JAWS cursor. Does a standard page down to bring up the next screen and starts reading from the top with the JAWS cursor. It is possible to stop reading by tapping the **Control** key. To resume reading from the same place, use **Insert Down Arrow**.

Control PageUp Read Prior Screen

Does a page up and begins reading with the JAWS cursor. Does a standard page up to bring up the prior screen and starts reading from the top with the JAWS cursor. It is possible to stop reading by tapping the **Control** key. To resume reading from the same place, use **Insert Down Arrow**.

Reading Specific Areas

Insert A Address Window

Sends the JAWS cursor to the address field and reads its contents. Places the JAWS cursor in the address field. The user can then click the left mouse button (**Numpad Slash**) to highlight the current address. At that point, typing in a new address will replace the current address. **Note:** The JAWS cursor is left on once this action is performed.

Insert F8 ToolBar

Used to access the toolbar. While in 1E4, this script brings up a dialog list box, which contains every button in a list that appears on the toolbar. In this dialog the user can choose one of the buttons on the toolbar and press Enter to select it.

Control Insert Home Move to First Forms Field

If there is a forms field on a page, this command will move to the first one and speak it. Move to next with **Tab** key.

Column Reading Functions

Control Down Arrow Read Down Column
When the JAWS cursor is active, reads the next line of the current column.

Control Up Arrow Read Up Column
When the JAWS cursor is active, reads the prior line of the current column.

Control Left Arrow Read Column Left
When the JAWS cursor is active, reads the current line in the prior column.

Control Right Arrow Read Column Right
When the JAWS cursor is active, reads the current line in the next column.

History Options

Control Shift O Open History
Opens the history tree view and moves the focus to the first item in the tree.

Control Shift X Close History
Closes the history tree view and moves the focus back to the web page.

Using Internet Explorer Help

IE Help is presented in a split view. The left pane is a multi-page dialog, and the right pane is the actual Help topic. To navigate between the panes, press **F6**. To select a page in the multi-page dialog, use the Select Tab script, **Ctrl Insert F10**, or **Ctrl Tab** to switch between the pages. The contents of the Help Topic pane in IE Help are displayed just like a Web page, so JFW provides the same navigation and reading functionality in this pane as it does in IE 4.

Notes:

JAWS 3.31 and Internet Explorer 4.01/5.0

Introduction

Internet Explorer 5.0 is a suite of tightly integrated programs that connects a computer to the information that is available through the Internet and the Intranets. Internet Explorer not only acts as a browser to display the data, but it also helps the user find, incorporate, and interact with that data. It is recommended to use IE 5.0 with JAWS for Windows 3.31 or later. IE 4.01 is still supported as it has been in earlier versions of JFW, but JFW takes advantage of newer technology that is only available in IE 5.0. These applications run under Microsoft Windows 95, Windows 98, and Microsoft Windows NT. When using Microsoft Windows NT, Service Pack 4 or later is required.

Getting Started

Make sure that IE is installed properly on and running correctly. It is recommended not to install the Active Desktop component with **IE**. If the IE toolbar is used, include text labels on the buttons. Default IE settings include text labels.

If it is necessary to turn on the text label option in IE, do the following:

1. In IE, open the **View Menu** with **Alt V**.
2. Enter t to select **Toolbars**.
3. Enter o to open the **Options** dialog box.
4. Use **Alt X** to move to **Text Options** list combo box and arrow through choices until "**show text labels**." There are several advanced options that should also be changed. Open the Internet Options dialog under the Tools menu and go to the Advanced page.

Under the accessibility section, make sure the following are checked:

Move system caret with focus/selection changes.
Always expand all text for images.

Under the browsing section, make sure the following are not checked:

Show channel bar at startup
Show friendly URLs
Use smooth scrolling
Enable page transitions

(The following may or may not be necessary because JAWS has improved functionality: In the Accessibility dialog, make sure "Ignore colors specified on Web pages" is checked.)

To set this option:

1. Open the IE **Tools** menu with **Alt T**.
2. Tap o to go to **Internet Options**.
3. Enter **Alt E** to move to the **Accessibility** button in this dialog box.
4. Enter **Alt C** to toggle the state of the **Ignore Colors** option.

JAWS Keystrokes for Internet Explorer 5.01

Insert A

AddressBar

Reads the Address bar while maintaining the place on the page. Holding down **Insert** and tapping a twice quickly moves the JAWS cursor to the address bar. **Alt D**, an IE 5 keystroke, selects the text on the Address bar. Type in a new address, or copy or cut and paste to the clipboard.

Ctrl Insert Home

FocusToFirstField

Moves to the first input field in the page and speaks it. If no form field is found, JFW reports, "Input Field Not Found."

Alt Left Arrow or Backspace

GoBack

Loads the previously opened Web page and says the line the user was on prior to leaving this page.

Alt Right Arrow

GoForward

Loads the next opened Web page and announces it. JFW places the Virtual PC cursor at the top of the page and says the first line. This is useful when browsing pages.

Ctrl F

IEFind

Calls up the Find dialog.

Tab

MoveToNextLink

Moves to the next hypertext link or control in the page. Activate a link by tapping **Enter**.

Insert Enter

MoveToNonLinkText

Moves to the next block of non-linked text that is larger than 50 characters. (when using the virtual cursor)

Shift Tab

Moves to the prior hypertext link or control in the page. Activate the link by tapping **Enter**.

MoveToPriorLink**Ctrl Tab**

Moves to the frame and says the frame label.

NextFrame**Ctrl Shift Tab**

Focuses and reads the previous frame in the HTML order.

PriorFrame**Insert Esc**

Refreshes the screen and updates the state of information of the Off Screen Model.

RefreshScreen**Ctrl Insert Down Arrow**

Reads the body of the page from the top with the JAWS cursor.

Note: This is only available in non-virtual cursor mode.

ReadCurrentScreen**Ctrl Page Down**

Reads the next screen: does a PageDown and begins reading with the JAWS cursor.

Note: This is only available in non-virtual cursor mode.

ReadNextScreen**Ctrl PageUp**

Reads the prior screen. Does a PAGE UP and begins reading with the JAWS cursor.

Note: This is only available in non-virtual cursor mode.

ReadPriorScreen**Insert F5**

Reformats multiple column pages to be more readable with speech. Rearranges multiple column pages to read in a linear fashion. IE columns are read one after another.

Note: This is only available in non-virtual cursor mode.

ReformatDocument**Insert Tab**

Says the focused link or control. If in a dialog, speaks the current control. If in a Web page, announces the link or control with focus.

SaySelectedLink**Insert F9**

Brings up a dialog containing a list of the frames present in the page. Select a frame from the list and press **Enter**. The focus moves to the frame selected and speaks its content.

SelectAFrame

Insert F7

SelectALink

Brings up a JFW dialog containing all of the links present on the page. Select a link by using the Arrow keys or the first letter of the link. Press **Enter** to open the selected link. TAB between the various controls in the Select A Link dialog.

Insert F8

IE Tool Bar access

Allows access to the IE toolbar. While in IE, brings up a dialog box that contains a list of every button that appears on the toolbar. In this dialog, select one of the buttons on the toolbar and press **Enter** to choose it.

Insert Z

VirtualPCCursorToggle

Toggles the Virtual PC cursor mode On or Off. When in a web document, this command toggles between the Conventional mode and the Virtual PC cursor interface.

Helpful Hints

When working in Internet Explorer 5.0 with JFW, the user works in one of three modes; Virtual PC cursor mode, Forms mode, or Conventional mode.

It is not possible to use the Context Detection options when using the virtual cursor.

Virtual PC Cursor Mode

The Virtual PC cursor is activated automatically when IE 5 opens, and JFW begins speaking the text on the screen as soon as the page finishes loading. If the newly opened page is loaded, JAWS announces the presence of frames, links, and forms on the page. JAWS will announce if there are no frames, links, or forms on the page. If there are none on a current page, it is possible to perform a GoBack or GoForward.

The Virtual PC cursor works in the Internet Explorer 5.0 environment in much the same way that the PC cursor does in other applications. The Virtual PC cursor responds to normal screen reading keys in the same way, but there is no visual indication on the area of the screen that is being read. In addition, the screen does not automatically scroll, so to bring up text that is out of screen range, use **Insert Esc**.

Caution: Manually starting to read before the loading has finished often results in less than all of the text being available.

When reading a Web page with the Virtual PC cursor, select text using the standard Windows text selection keys; there is no visual feedback of what is being selected. The SaySelectedText script (**Insert Shift F2**) speaks the text that has been selected.

When a page with frames first comes up, all frames are readable in sequential order. Check with **Insert F1** and JAWS announces: "The page contains frames."

As the user enters a frame, JAWS says its name, e.g., "Navigation Frame," JAWS announces the frame name and "end" when the user leaves a frame.

Ctrl Home brings the top of the document into view on the visual screen, **Ctrl End** brings the bottom of the document into view on the visual screen, **PageDown** moves down 24 lines, and **PageUp** moves up 24 lines. **SayAll** in line mode reads the document from top to bottom. To stop this reading, tap **Ctrl** to stop the SayAll function. JAWS positions the cursor near the last item read.

When reading text on a Web page, each link appears to be on its own line, even though this may not be true on the screen. Visited links are identified as "visited." They are also properly categorized as visited in the Links List dialog. Note: When JAWS reads "strange things," the following is probably occurring: when JFW encounters a link that does not have any text associated with it, one of two things is announced. If the link is a CGI link, the name of the graphic is spoken. Otherwise, the last directory component and the file name of the URL is spoken instead.

To quickly skip past headers, press **Insert Enter**. This moves the user down through the page to the first text of at least 50 characters that is not a link. When it arrives at the text, the current line is read.

When the cursor is on a line with a link, pressing **Enter** or **Numpad Slash** activates that link. Subsequently, pressing **Backspace** moves back to the last position on the last page read.

When using the virtual cursor and a link on the screen that has an ALT tag is encountered; JAWS will read that tag since it is more descriptive.

How to Turn Virtual Cursor On and Off

It is not possible to use the reformat option (**Insert F5**) in Internet Explorer (IE) when the virtual cursor is in use. Therefore, if the user wishes to work in the web environment using the JAWS interface of version 3.30, which allows reformatting of web pages, it is necessary to turn off the virtual cursor.

1. With Internet Explorer open, enter **Insert 6**. The configuration file for IE, **browseuijcf**, is opened by the Configuration Manager. (To make this change throughout all applications, load the default configuration file from the Configuration Manager file menu and then do the following.)
2. Enter **Alt S** to open the **Set Options** menu.
3. Tap a for **Advanced Options**.
4. Enter **Alt V** to toggle the virtual cursor state off.
5. Save the **browseuijcf** file by entering **Ctrl S**.
6. Close the **Configuration Manager** with **Alt F4**.

Note: To temporarily toggle between Virtual PC cursor and PC cursor, press **Insert Z**.

Forms Mode

With the Virtual PC cursor positioned on a form field, press **Enter** or the **Num Pad Slash** key to switch to **Forms Mode**. JAWS will announce "Forms Mode On," and speak the name of the control which has cursor focus. At this juncture, tap **Enter** to activate the PC cursor at the current control.

Possible example: If the user is on a button, it is pressed. If the user is on a checkbox, the state of the checkbox is toggled. If on a radio button that is unchecked, then the radio button is checked; however, if it was already checked, it remains unchanged. In an edit box, the PC cursor is placed at the top of the edit field. In a combo box, the first item is selected.

Tab and **Shift Tab** must be used to move between fields in forms mode. When using these keys for navigation, the natural tab order is used, including any links that may appear between fields. As JAWS lands on the different controls, it announces the new control, such as a link or a field.

While in forms mode it is possible to edit fields using the PC cursor as done normally.

To exit Forms Mode, press **Num Pad Plus** to return to the Virtual PC cursor.

Note: JFW remains in Forms Mode until the virtual PC cursor is activated or a new page is displayed, whichever comes first. **Insert Esc** also returns the user to virtual cursor mode and moves the position of the virtual PC cursor to the first control on the current page.

Tip: Return to the Virtual PC cursor using the **NumPad Plus**. This turns Forms Mode off.

Link List Dialog

When in IE 5.0, bring up the Link List dialog by pressing **Insert F7**. This brings up the Links List view. By default this list is sorted in tab order and shows all links. This List view lists the links on the current page according to the filter and sort order set by the other controls in this dialog. Each time it comes up, it defaults to listing all links in tab order. If the links have the same name but point to different locations, each one is listed in this list view.

Visited links are determined by what IE indicates as a visited link. If IE keeps in memory what links have been visited in the (for example) last 10 days, a link will display as visited until the 10 days are up. It is possible for the user to adjust the time IE keeps links as visited.

The Links List dialog has a display area where in the lower portion of the dialog box. Three radio buttons affecting link display are placed there: **All Links**, which if selected shows all links; **Visited Links Only**, which if selected shows visited links only; and **Unvisited Links**, which if selected shows unvisited links.

The Links List dialog has radio buttons which allow the user to set the way the Links List dialog box displays links. In **Tab Order**, which if selected, lists the links in tab order; and **Alphabetically**, which if selected lists the link alphabetically.

There are also three buttons which assist the user in navigating: **Move To Link** which if selected moves to a link; and Activate Link which if selected moves to an activated link; and **Cancel**, which if selected closes the Links List dialog.

Alt M

Move to Link button

When activated, closes the dialog box and moves the Virtual PC cursor to that link on the current Web page. Use the navigational keys to explore around the link.

Enter

Activate Link button

Closes the Link List dialog box and activates the selected link. It is also the default button.

The Display group box allows the user to select the radio button to filter the displayed list to display all links (default), visited links only, or unvisited links. It is possible to tab to this group box or use hot keys to change the settings without leaving the list view. Hot keys to change the link display are as follows:

ALT+L Display All Links
ALT V **Display Visited Links Only**
Alt U **Display Unvisited Links**

The links list can have the links appear in or alphabetically. Tab to this group box or use hot keys to change the settings without leaving the list view. Hot keys are as follows:

ALT+T Display links in tab order (default)
ALT+P Display links in alphabetical order

In the Links List dialog it is possible to close the dialog box and return to current position on a web page by activating the Cancel button with **Alt C** or tapping **Esc**.

Working in Conventional Mode (as in IE 4.01)

To turn off virtual PC cursor in Configuration Manager, uncheck the check box located in Advanced Settings. This returns to the conventional JAWS cursor mode.

Note: To temporarily toggle between Virtual PC cursor and PC cursor, press **Insert Z**.

By unchecking the checkbox, it is possible to navigate in IE using the JAWS cursor and reformatting options that were used by JFW in IE 4.01. This functionality is not available if the Virtual PC cursor mode is enabled. To find out more about how the JAWS conventional mode works, as in IE 4.01, see the JFW Help topic "Using JAWS with Popular Applications" section on using *JAWS with IE 4.01*.

Notes:

JAWS 3.3 with Word 97, ver 8.0

JAWS now has a richly functional interface as it operates in Word. It is possible to read by larger linguistic units (sentence or paragraph) when working in a Word document. With JAWS 3.3 this capacity has been extended to other extended text reading environments (e.g., an Internet page being read with the JAWS cursor).

Excellent Word training tapes and disk activities for the intermediate user have been developed by Henter-Joyce and are available at: <http://www.hj.com/Training/Tutorials/W8Tut.html> The cost of the tutorial is \$79.00.

The JAWS 3.3 with Word 97, ver 8.0 training (advanced) at the High Tech Center Training Unit includes materials and exercises developed by the federally funded Project ASSIST with Windows. The Iowa State Department for the Blind is responsible for developing these materials. Information about these materials (available for a nominal charge) can be obtained from the following website: <http://www.blind.state.ia.us/Assist/default.htm>

Helpful Hints

Toolbars can now easily be navigated in Microsoft Word. Use Alt to activate the menu bar. You can then use **Control Tab** to move from control bar to control bar and use the Arrow or Tab keys to move from button to button within each command bar.

The Office Assistant can be a very useful tool in Microsoft Word. It does however frequently cover useful information. If you find that text seems to disappear or parts of windows seem to be covered; the Office Assistant may be on top of the active window. In many cases it is preferable to disable most of Office Assistant's capabilities. To do this, move to the Office Assistant button (Microsoft Word Help button) in the Standard Toolbar or from the Help Menu. Press **Enter** to activate the Office Assistant. Tab to the **Options** button and press **Enter**. This will bring up the Office Assistant multi-page dialog. On the Options page, turn off the undesired options.

Sentence and Paragraph Reading

Say Sentence

Alt Numpad Plus

Reads the current sentence. Reads the sentence in which the PC cursor is positioned.

Say Prior Sentence **Alt Up Arrow** (from expanded key set)
Moves the PC cursor to the beginning of the previous sentence and reads it.

Say Next Sentence **Alt Down Arrow** (from expanded key set)
Moves the PC cursor to the beginning of the next sentence and reads it.

Say Paragraph **Control Numpad Plus**
Reads the current paragraph. Reads the paragraph where the PC cursor is.

Say Previous Paragraph **Control Up Arrow** (from expanded key set)
Moves the PC cursor to the beginning of the previous paragraph and reads it.
(Repeat the command if cursor falls on blank line between paragraphs.)

Say Next Paragraph **Control Down Arrow** (from expanded key set)
Moves the PC cursor to the beginning of the next paragraph and reads it.
(Repeat the command if cursor falls on blank line between paragraphs.)

Commands Useful for Formatting

Font Dialog **Control Shift F**
When no Format Toolbar is present, the Font Dialog box is called up by this command. Font type, font style (e.g., bold or italic), and point size can be set through this dialog box. These selections will affect any text that is selected, or entered from the PC cursor point forward.

PointSize **Control Shift P**
When the Format Toolbar is present, the PC cursor is moved up to the Font Size list box on the tool bar. Using the arrow keys will move through available font sizes. Press Enter to set size and return to document.

When no Format Toolbar is present, the Font Dialog box is called up by this command and the PC cursor focus is in the size edit box. Use the Arrow keys to move up or down through available point sizes.

Left Justify **Control L**
Aligns text that is selected or entered. This action uses the Word command to left justify the text. The left margin is even or aligned. Use **Insert F** to confirm the setting.

Center Text **Control E**
Positions any selected text so that the left and right margins are equal. Used, for example, to center an essay title. Aligns text to the center that is

selected or entered. This action is using the Word command to center text. Use **Insert F** to confirm the setting.

Right Justify **Control R**
Right aligns text that is selected or entered. Uses the Word command to perform this function. Use **Insert F** to confirm the setting.

Justify Text **Control J**
Using the Word command to justify text, the text is made even along both the left and right margins. Use **Insert F** to confirm the setting.

Using the Spell Check Function

Read Mistake and Suggestion **Insert F7**
Reads and spells the misspelled word and the first suggestion in the spelling dialog.

Read Word in Context **Insert C**
Reads entire document line in which the highlighted word in spellcheck box appears.

Find Functions

After using Microsoft Word Find command (**Ctrl F**):

Top of Screen **Control PageUp**
Performs a Find Prior. If an initial find has not been performed, then moves the cursor to the top of the screen.

Bottom of Screen **Control PageDown**
Performs a Find Next. If an initial find has not been performed, then moves the cursor to the bottom of the screen.

Find Next Highlight **Control Insert Right Arrow**
Moves to and speaks the next highlight after the cursor.

Other Useful Commands

Toggle Writing Mode **Control Alt I**
Toggles between typing and overwrite mode.

Convert Table to Text

Insert F5

Converts a table to text and puts the PC cursor at the beginning of the converted text. The table is replaced by the converted text.

