

# **JAWS 4.5 and Internet Explorer 6.0**

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# JAWS 4 and Internet Explorer 6.0

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## Introduction

Internet Explorer 6.0 is a suite of tightly integrated programs that connects a computer to the information that is available through the Internet and 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. These applications run under Microsoft Windows 95, Windows 98, and Microsoft Windows NT/2000. 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.

### Open the Internet Explorer settings panel:

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. Make sure "**Ignore Colors...**" is selected.
5. Close this panel by selecting **the** OK button.
6. **Use Control Tab** to get to **the** Advanced settings tab.
7. Under **the** Accessibility section, make sure the following are checked:
8. Always expand ALT text for images
9. Move system caret with focus
10. Under **the** Browsing section, make sure the following options **are NOT** checked:
  - Show Channel bar at startup
  - Show friendly URLs
  - Use smooth scrolling
  - Enable page transitions

## JAWS Keystrokes for Internet Explorer 6.0

### Support for Internet Explorer 6.0

JAWS for Windows now supports Microsoft Internet Explorer 6.0. All of the keystrokes you have become accustomed to in Internet Explorer 5.5 remain unchanged. Use the following commands for navigating in form fields:

<b>Ctrl Insert Tab</b>	Move To Next Form Field
<b>Ctrl Insert Shift Tab</b>	Move To Prior Form Field
<b>Ctrl Insert End</b>	Move To Last Form Field

Note: These keystrokes only work in Virtual PC Cursor mode. Once you have located the desired form field, you need to press **Enter to switch** to **Forms Mode**.

Screen follows the Virtual **PC Cursor**

The screen tracks the location of the Virtual PC cursor.

### **Persistence of Settings in List of Links**

If the user filters or organizes their list in the Link List dialog, this setting will remain until they change it or exit JFW. The default setting that ships with JFW is All Links in Tab Order.

### **Improvements to Links List**

**The status line** contains the URL for selected link. This enables the user to determine which of several links with the same text name they want to activate or move to, i.e., which “Click Here” is the right one to select

### **Graphic Announcement Toggle**

The user has the ability to turn off the announcement of graphics that are not links. The user is able to toggle this through the HTML Settings Dialog in the Configuration Manager. The choices are: No Graphics, Tagged Graphics, and All Graphics. The default setting is All Graphics.

### **ALT Text and Screen Text Toggle**

Often, the ALT Text of links on a Web page is different from the text shown on the screen. Depending on the Web page, either can be more descriptive. The user has the choice to select which of these they would like JFW to seek as the primary text to speak.

**If the user selects** Screen Text, JFW will use the screen text if it exists, otherwise, it will use the ALT Text. If neither exists it will use the URL.

If the user selects ALT Text, JFW will always use the ALT Text, if available, otherwise, it will revert to the screen text. If neither exists it will use the URL.

The user is able to toggle this temporarily through the Verbosity dialog, or permanently through the HTML Settings dialog in the Configuration Manager.

## **JAWS Keystrokes for Internet Explorer 6.0**

### **Insert A**

AddressBar

Reads the Address bar while maintaining the place on the page.

### **Insert AA**

moves the JAWS cursor to the address bar.

### **Alt D (an IE 5/6 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**

MoveToPriorLink

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

**Ctrl Tab**

NextFrame

Moves to the frame and says the frame label.

**Ctrl Shift Tab**

PriorFrame

Focuses and reads the previous frame in the HTML order.

**Insert Esc**

RefreshScreen

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

### **Ctrl Insert Down Arrow**

ReadCurrentScreen

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

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

### **Ctrl Page Down**

ReadNextScreen

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

This is only available in non-virtual cursor mode.

### **Ctrl PageUp**

ReadPriorScreen

**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.

### **Insert F5**

ReformatDocument

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.

### **Insert Tab**

SaySelectedLink

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.

### **Insert F9**

SelectAFrame

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.

### **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 6.0 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 (Insert F) option when using the virtual cursor.

## **Virtual PC Cursor Mode**

**The Virtual PC** cursor is activated automatically when IE 6.0 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.

The Virtual PC cursor works in the Internet Explorer 6.0 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 (e.g., **Shift Right Arrow** to select a character; **Control Shift Right Arrow**) to select word ; 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 (Insert 2** on numpad) 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 the ALT tag.

### **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, browseui.jcf, 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 browseui.jcf file by entering Ctrl S.
6. Close the Configuration Manager with Alt F4.

Note: To 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** (not **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, the button 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 6.0, 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.  
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:

<b>ALT L</b>	Display All Links
<b>ALT V</b>	Display Visited Links Only
<b>ALT U</b>	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:

<b>ALT T</b>	Display links in tab order (default)
<b>ALT P</b>	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)**

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

By turning off the Virtual Cursor, 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*.

## **Web Based Activities to Learn to Use JAWS**

The High Tech Center Training Unit has developed a series of web pages designed to be used with JAWS: [www.htctu.fhda.edu/readweb/readweb](http://www.htctu.fhda.edu/readweb/readweb)

The following text accompanies these activities:

### **Reading Web Pages with JAWS 4.5**

The California community colleges Distance Education Access Guidelines for Students with Disabilities require that all web-based instructional resources be WAI Priority 1 compliant. A large number of Priority 1 guidelines address access considerations for persons who are blind.

Additions to JAWS version 3.7 greatly improved the capacity of this screen reader navigate more complex web pages. These features were carried over into the new version of JAWS 4.0 and have been extended in JAWS 4.5. The web pages provide examples of the types of web page formats which can now be read with JAWS and the JAWS keystroke commands for reading them.

These example pages are meant to be explored using Microsoft Internet Explorer 6.0 and JAWS version 4.5. JAWS makes extensive use of the "accessibility hooks" built into Internet Explorer 6.0 and will not provide the same level of access when used with Netscape Navigator or earlier versions of Internet Explorer. Please remember that pressing the Ctrl key will stop JAWS reading, pressing the Tab key will move to the next link and pressing Shift Tab will move to the previous link.

These activities illustrate how the power of the new Virtual Cursor has increased the capability of JAWS to read complex web pages.

**Important:** JAWS reading commands use the Num Pad keys.

## Reading Web Pages with JAWS 4.5 - Internet Explorer 6.0

### Reading Letters and Words

Read next character	Right arrow
Read previous character	Left arrow
Read current character	Num Pad 5
Read next word	Insert Right Arrow
Read previous word	Insert Left Arrow
Read current word	Insert Num Pad 5

### Reading Lines and Sentences

Read next line	Down Arrow
Read prior line	Up Arrow
Read current line	Insert Up Arrow
Read next sentence	Alt Down Arrow
Read prior sentence	Alt Up Arrow
Read current sentence	Alt Num Pad 5

### Reading Paragraphs and Pages

ACTION	KEYSTROKE
Read next paragraph	Ctrl Down Arrow
Read prior paragraph	Ctrl Up Arrow
Read current paragraph	Ctrl Num Pad 5
Move to top of page	Ctrl Home
Move to bottom of page	Ctrl End
Read to end of page	Insert Down Arrow

## Reading Web Page Tables with JAWS 4.5

ACTION	KEYSTROKES
Reads the row and column coordinates, followed by the cell contents and then the appropriate row and column headings.	Ctrl Alt Num Pad 5 <b>Press Alt after Ctrl and release Alt before Ctrl</b>
Moves to the next cell in the same row and then announces the column heading followed by cell contents and then the column number.	Ctrl Alt Right Arrow
This Moves to the previous cell in the same row and then announces the column heading followed by cell contents and then the column number.	Ctrl Alt Left Arrow
Moves to the cell below the current cell and reads the row heading followed by cell contents and then the row number.	Ctrl Alt Down Arrow
Moves to the cell above the current cell and then announces the row heading followed by cell contents and then the row number.	Ctrl Alt Up Arrow
Moves to first cell in current table and reads row and column coordinates followed by contents of the cell.	Ctrl Alt Home
Moves to the last cell in current table and reads row and column coordinates followed by contents of the cell.	Ctrl Alt End

## Using JAWS 4.5 to Read Forms

Moves to the first input field in the page and speaks it. If no form field is found, JAWS reports, "Input Field Not Found."	Ctrl Insert Home
With the Virtual PC cursor positioned on a form field, enters Forms Mode and speaks the name of the control which has cursor focus. Press <b>Enter</b> to activate the PC cursor at the current control	Enter
To move to next field 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.	Ctrl Insert Tab
To move to previous field in Forms Mode	Ctrl Insert Shift Tab
To move to last form field	Ctrl Insert End
To exit Forms Mode and return to the Virtual PC cursor	Num Pad Plus

## Reading frames with JAWS 4.5

JAWS 3.7 was capable of identifying the presence of frames on a web page and moving to the location of each frame. This is maintained in JAWS 4.5. Use normal JAWS web keystrokes for reading the content of the frame.

Announce the presence of frames on the page	Insert F1
Bring up a dialog box containing a list of the frames present on the page. Use the Up/Down arrow keys to select a frame from the list and press ENTER. The focus will move to the frame selected and speak its content.	Insert F9
Move to next frame	Ctrl Tab
Move to previous frame	Shift Ctrl Tab

## Reformatting web pages with JAWS 4.5

Complex web pages can be automatically reformatted for better screen reader access. Press Insert z to turn off the Virtual PC cursor then press Insert F5 to reformat the screen.

## Display all page links with JAWS 4.5

- For a quick display of all links on the active web page in their tab order, press Insert F7
- Use the Up and Down Arrow keys to navigate the list and hear the link names
- Use the Enter key to go to a selected link.

## Basic Web Navigation

JAWS and Internet Explorer 6 provide a variety of ways to perform basic web page navigation. The following keystrokes outline some of these basic functions.

Move to and read address bar	Insert a
Move JAWS cursor to address bar	Insert a a (quickly)
Select address bar	Alt d
Search page content	Ctrl Insert f
Next web page	Alt Right Arrow
Previous web page	Alt Left Arrow

### Notes: