JAWS 12 Features

# JAWS Support for New MAGic Large Print Keyboard

The MAGic Large Print Keyboard is a new accessory that contains extra keys assigned to the most commonly used MAGic functions. Its large and contrasting letters also make it easier to type and use MAGic hot keys. Using the MAGic Keyboard Manager, you can assign different MAGic functions to these keys. For example, if you do not use dual monitors, you can change the Jump to Next Display key to any other feature item such as mute system sounds.

The keyboard also allows the assignment of shortcuts to keys. With a shortcut, the keys can launch applications, open files on your computer or in a network folder, or open a favorite Web site. For example, you can assign the M1 key (available along the top of the MAGic Large Print Keyboard) to open a document that you need to regularly access.

Another benefit is that you can use the keyboard with JAWS screen reading software. Similar to MAGic, you can assign hot keys to JAWS functions while also using the keyboard with or without running MAGic. Note that when running the two applications together, the JAWS functionality will override the MAGic functionality.

# Microsoft Internet Explorer 9 Support

JAWS 12 has been further enhanced for Internet Explorer 9 which is available for users of Windows 7 and Vista. These enhancements include Braille and the JAWS cursor being able to properly navigate and read pages. Please note that with the release of Internet Explorer 9, Microsoft has made significant changes which prevent commercial screen magnification products from smoothing fonts as we had previously. If font smoothing is important for users of MAGic on your computer, we recommend that you remain with Internet Explorer 8 on your machine until a solution has been worked out.

# Microsoft Excel Improvements

The interface to the Excel Object Model has been rewritten. You will experience a more responsive and accurate interface to Excel.

# Visual Studio 2010 Professional Support

Visual Studio 2010 Professional is a development environment from Microsoft that enables application developers to develop software using a wide variety of languages including C++, C#, Visual Basic.net, and more. JAWS 12 now provides robust support with both speech and braille for various areas of the Visual Studio system, including:

* IntelliSense, similar to auto completion, which gives suggestions for what to type next based on what you have already entered
* Editor Adornments such as bookmarks and break points
* WPF and Forms Designers for laying out dialog boxes and other windows; as well as the Code, XML, Text, and Macro Editors
* As you develop your applications, you will even be able to use the Debugger to step through your program to locate errors

# UTF-8 File Support

JAWS script files now support UTF-8 format. In Script Manager, the File menu has the new UTF-8 Format command. When you open a UTF-8 encoded script file (JSS), the command has a check mark. If you open an ANSI encoded script file, the command does not have a check mark.

You can save an ANSI encoded file as UTF-8 by simply selecting, or checking, the UTF-8 Format command in the File menu. Likewise, to save a UTF-8 formatted file as ANSI, clear, or uncheck, the command. Note that the script’s header and message files (JSH and JSM) can be in a different format. This means that a UTF-8 script file can include ANSI header and message files or vice versa.

# ARIA Support

Improvements continue to be made to JAWS and its support of ARIA and industry standard ARIA tool kits.

# Mozilla Thunderbird Script Support

JAWS 12 includes full support for the Thunderbird e-mail application. It offers users an alternative to Windows Live Mail.

# Conversation View in Outlook 2010

JAWS now supports the new conversation view found in Microsoft Outlook 2010. This view is different than prior versions of Outlook. The conversation view allows you to view all of the messages associated with a particular subject in one group.

# BrailleIn™

The BrailleIn feature allows you to use only your Perkins-style braille keyboard to control your computer using both Windows and application specific commands. In addition, you can also enter both contracted and uncontracted braille input from your braille display’s keyboard. The advantage is that you no longer have to switch between your computer’s keyboard and your display’s keyboard, or enter a special typing mode in order to use contracted braille to run your computer or programs. Visit the [Braille Display Input Commands](http://www.freedomscientific.com/downloads/jaws/JAWS-braille-keystrokes.asp) Web page for a list of keystrokes that support Freedom Scientific’s Focus braille displays. For other braille displays, contact the manufacturer for a list of keystrokes.

# Typing with Contracted Braille

With BrailleIn, as you type in contracted braille using the Perkins-style keyboard, your input is immediately translated back as normal text in the current e-mail, document, or form. If an application or specific edit box does not support contracted braille, JAWS announces “Computer Braille” when tutor messages are enabled.

Contracted braille input is off by default. To turn it on, do the following:

1. Press **INSERT+F2**, and select Settings Center.
2. In the Search edit box, type "Contracted Braille Translation" without the quotes.
3. Press **DOWN ARROW** to move to Contracted Braille Translation in the filtered search results in the tree view.
4. Next, press **SPACEBAR** to cycle through the different settings in the Contracted Braille Translation combo box. Available settings are Off, Output Only, and Input and Output. When set to Off, you cannot read or type in contracted braille using your braille display. When set to Output Only, you can read contracted braille on your braille display, but you can only type in computer braille using the Perkins-style keyboard on your braille display. When set to Input and Output, you can both read and type in contracted braille using your braille display. The default setting is Off.

# Settings Center

JAWS Settings Center is a new feature that allows you to quickly configure and globally apply JAWS settings, or configure and apply settings for a specific application. It consolidates all options into one convenient dialog box. It includes a Search edit box, which provides an extremely fast way to find and edit JAWS functionality. Settings Center continues to use JCF files and is a direct replacement for Configuration Manager.

Settings Center consists of six primary areas described below. Press **TAB** or **SHIFT+TAB** to move through different parts of the dialog box.

* **Application combo box**: Select an application from the list to modify its settings for use with JAWS. To retrieve the JAWS default settings, press **CTRL+SHIFT+D**. To retrieve application settings, press **SHIFT+TAB** to move focus to the Application combo box. Next, select the application from the combo box, and then press **TAB** to move focus back to the tree view pane.
* **Search edit box**: Press **CTRL+E** to move focus to the Search box. Type a search word or phrase in the edit box to reduce the number of items that appear in the tree view list. Press **DOWN ARROW** to move to search results, and then press **ENTER** to move focus directly to that item in the tree view.
* **Settings tree view pane**: Use the tree view pane to select and change settings for the selected application. To retrieve the JAWS default settings, press **CTRL+SHIFT+D**. To retrieve application settings, press **SHIFT+TAB** twice to move focus to the Application combo box. Next, select the application from the combo box, and then press **TAB** to move focus back to the tree view pane. For a brief description of the item selected in the tree view, press **TAB** to move focus to the read-only edit box. Use the Say Line or Say All commands to read the help message. To vertically scroll through the tree view, use the **UP** and **DOWN ARROW** keys, **PAGE UP** and **PAGE DOWN** keys, or first letter navigation. Use the **LEFT** and **RIGHT ARROW** keys to expand or collapse tree view groups. Use the **SPACEBAR** to move through and change settings for each option.
* **Configuration display pane**: As you move through the tree view, a sighted user can simultaneously track cursor movement using the configuration display pane. Press **F6** to switch between the tree view and this pane. This is necessary when typing in an edit or edit spin box.
* **Help message pane**: Displays context-sensitive help for the item currently selected in the tree view. Use the Say Line or Say All commands to read the help message.
* **Apply**, **OK**, and **Cancel**: Use **Apply** to make changes. Use **OK** to save changes and close Settings Center. Use **Cancel** to close Settings Center without saving changes.

To use Settings Center, do the following:

1. Press **INSERT+F2**, and select Settings Center. Settings appear for the application that has focus. The cursor is in the Search edit box.
2. If you know the setting that you want to change, type a term for it in the edit box. For example, type the word "braille" without the quotes for a filtered list of braille settings. Next, press **DOWN ARROW** to move to the filtered results in the tree view.

**Note:** To load the default JAWS settings, press **CTRL+SHIFT+D**, and then search for the setting as previously described.

To select a different application, press **SHIFT+TAB** to move to the Application edit box. Use **ARROW Keys** or first letter navigation to select the application, and then press **CTRL+E** to search for the setting as previously described.

1. Press **SPACEBAR** to select check boxes, radio buttons, or other buttons, and press **F6** to switch between an edit box and the tree view to change settings.
2. Choose Apply to apply changes and remain in Settings Center, OK to save changes and exit Settings Center, or Cancel to close Settings Center without saving changes. The new settings are saved to the appropriate JCF file.

# Virtual Ribbon Menu

The Ribbon is a new style of menu available in many new applications being released today. Ribbons first appeared in Office 2007 programs, but are now becoming more common in other applications tailored for the Windows 7 operating system. Ribbons create an accessibility challenge due to inconsistent navigation between various groups and items. For example, when you enter the Lower Ribbon and press the **ARROW** keys to move between items in a group, you can skip items and unexpectedly move into another group. Pressing **TAB** gives no indication that you have left one group and entered another. Using first letter navigation to find items can be difficult and frustrating. Finally, because of a group’s layout, you do not know if you should navigate up, down, left, or right to select an item.

The new Virtual Ribbon Menu provides predictable navigation, lets you see everything in the Ribbon, and offers consistency when navigating with **ARROW** keys. For example, the **ARROW** and **TAB** keys move focus from the Upper Ribbon tabs to the Lower Ribbon groups. Once in a group, the **ARROW**, **TAB**, and **SHIFT+TAB** keys move through all items in a group, move from one group to the next, and wrap to the beginning of the Ribbon. For submenus, **SPACEBAR** and **ENTER** expands menus, and **ESC** collapses menus. The Virtual Ribbon Menu is off by default and can be switched on or off from within Settings Center or the JAWS Startup Wizard. When the Virtual Ribbon Menu is on, the Ribbon is navigated using a traditional menu and submenu format familiar to most JAWS users.

# Marking and Returning to a Place in Word

Word uses bookmarks to let you mark and later find locations in a document. However, this also means that you are editing and changing the document. Using the new PlaceMarker feature in Word, you can now mark a location without affecting the document. It allows you to easily return to the PlaceMarker any time, even after closing Word or rebooting your computer. There is no need to remember that location or use Navigation Quick Keys or a dialog to find it, as you would a bookmark. Also, if you share the document with others, the marker will not be available to them. Press **CTRL+WINDOWS Key+K** to set or move the marker. Only one PlaceMarker can be set per document. Press **WINDOWS Key+K** to return to the marked location.

This feature also makes it easy to select large blocks of text. Just mark a starting point in the document, read and navigate until you reach the end of the text that you want to select, and then press **INSERT+SPACEBAR, M**. This acts the same way as clicking and dragging a mouse over text. Once selected, feel free to copy, cut, or paste the text anywhere you like.

# Text Analyzer

When editing a document using speech only, inconsistencies such as unmatched parentheses, unintentional format changes, extra whitespace, and stray or unspaced punctuation can often be missed. The new Text Analyzer feature is a tool that notifies you of these errors in your document by using a spoken message or WAV file. You can configure JAWS to announce discrepancies by count, by description, or by sound while proofreading the document by line, sentence, paragraph, or Say All command. Braille users will benefit from this since a sound can be emitted before the user has time to read the entire line looking for errors.

Text Analyzer is off by default. To turn it on, do one of the following:

* Use the new layered keystroke, **INSERT+SPACEBAR**, **T**. By pressing and releasing **INSERT+SPACEBAR**, and then pressing **T**, the Text Analyzer can be switched on or off.
* Open Settings Center (**INSERT+F2**). In the Search edit box type "Text Analyzer" without the quotes, and then press **SPACEBAR** to select an alert notification.
* Use the Adjust JAWS Options dialog box (**INSERT+V**) to select Text Analyzer, and then select the type of alert notification to use.

If multiple issues are identified in the document, press **ALT+WINDOWS Key+I** to move to the next item, or **ALT+SHIFT+WINDOWS Key+I** to move to the previous item. Note that these keystrokes can still be used even if Text Analyzer is off.

# Automatic Notification of Updates

When JAWS starts, it can now alert you if a software update is available. You then have the option to install it now or later. This is known as Automatic Notification of Updates and is on by default.

If you decide not to install the JAWS update now, you can always manually check for updates using the update feature in the JAWS Help menu. To turn auto notification on or off, choose Basics in the JAWS Options menu, and select or clear the Automatic Notification of Updates check box.

# Say All Schemes

Continuous reading of a Web page or Word document with numerous links can be frustrating due to constant interruptions that identify links and headings on the page. An example of this is when you read a Wikipedia article using the Say All command, where many words in the article are links to other articles. The Say All Scheme feature can alleviate this annoyance by using an unobtrusive sound or no link and heading indication at all to provide a smooth reading experience when using the Say All command.

Say All Schemes is located in the Say All group in Settings Center. Select No Change to continue using the current speech and sounds scheme in use. Select Say All Text with Sounds to hear a subtle WAV file sound, such as a Ding, when JAWS reads a link or heading. Select Say All Text Only to ignore HTML elements like links and headings. You can also use Add/Remove, which is a button in the Say All group, to add and use other schemes for Say All Reading.

# Reverse Panning Buttons for Braille

Reverse Panning Buttons is a new feature that allows you to switch the direction of left and right panning buttons. This is a great benefit if you are a two-handed braille user who reads different parts of a braille line at the same time. By the time your right hand reaches the end of the display, your left hand can be back at the left side of the display ready to advance it. This can significantly increase braille reading and is ideal for braille power users.

To use reverse panning, do the following:

1. Press **INSERT+F2** and select Settings Center.
2. In the Search edit box, type "Reverse Panning Buttons" without the quotes.
3. Press **DOWN ARROW** to move to Reverse Panning Buttons in the filtered search results in the tree view.
4. Press **SPACEBAR** to select the Reverse Panning Buttons check box.
5. Press **TAB** to move to the OK button, and then **SPACEBAR** to save the change and close Settings Center.

JAWS is now configured so that when you press a left Navrow button or Panning key, panning advances to the right. Likewise, when you press a right Navrow button or Panning button, panning advances to the left. To restore normal panning operation, repeat this procedure and clear the Reverse Panning Buttons check box.

# Hotkey Component for Structured Braille Support

When using Structured Mode, you can configure the amount of information and the order in which the information appears on the braille display when navigating the controls in a dialog box, an Office Ribbon, or a spreadsheet. Component information includes a control’s name, state, type, and so on. Using the Define Structured Mode feature, you can now determine if hotkeys are included in the descriptive details and the placement of this information on the braille display. This provides several benefits. For familiar or less complex application, you can turn off hotkey information, which will save valuable space on a small braille display. For complex applications, you can turn on hotkey information and change its relative position on the braille display so that it immediately appears after the name of the control. The hotkey component is turned off by default.

To turn on the hotkey component and change its position, do the following:

1. Press **INSERT+F2**, and select Settings Center.
2. In the Search edit box, type "Define Structured Mode" without the quotes.
3. Press **DOWN ARROW** to move to Define Structured Mode in the filtered search results in the tree view.
4. Press **SPACEBAR** to choose the button and open the Control Type Options dialog box. Focus is in the Control Properties page.
5. Select a control from the Control Properties list, and then choose Modify Control.
6. In the Available To list, select Hotkey and add it to the Show On list. Use the Up or Down buttons to change its position in the list.
7. Choose OK to close this dialog box, and OK again to close the Control Type Options dialog box.
8. Press **TAB** to move to the OK button, and then **SPACEBAR** to save and close Settings Center.

**Note:** To turn off the hotkey component, select Hotkey from the Show On list, and choose the Remove button.

# JAWS Support for ARIA

ARIA (Accessible Rich Internet Applications) is assistive technology markup used by Web content creators to make Web pages more accessible for screen readers. This is done by adding specific ARIA tags and elements to HTML code. Visit the Freedom Scientific [Screen Reading Software Documentation](http://www.freedomscientific.com/documentation/screen-readers.asp) Web page, and read the *JAWS Support for ARIA* document to learn more about JAWS and ARIA markup.

# Reading HTML Tables

The default setting for reading HTML table titles has changed so that JAWS now conforms to industry defined HTML standards by only reading table headers that are properly marked up. You can see this when using the **CTRL+ALT+ARROW Keys** to move through an HTML table.

While the default setting is now set to Only Marked Headers, you can continue to use earlier functionality for reading HTML tables if you are more comfortable with those settings. To change settings, press **INSERT+V** to open JAWS options, and then press **T** to move to the Table Titles Announce option. Next, press **SPACEBAR** to cycle through and select a new setting, and then **ENTER** to save the change.

Remember that you can always use Personalized Settings (**INSERT+SHIFT+V**) to customize how JAWS reads table column and row headers on any given Web site, without modifying how JAWS reads table headers on other Web sites.

For more information about reading HTML tables, visit the Tables section of Freedom Scientific’s [Surf’s Up](http://www.freedomscientific.com/Training/Surfs-Up/Tables.htm).

# Research It Enhancements

NCAA Football is a new addition to Research It. Use it to search for the schedules or results of your favorite college football teams. Because of the number of college teams, there are several ways to get search results.

One way is to open Research It (**INSERT+SPACEBAR, R**), type a date using the mm/dd/yyyy date format, and then select NCAA Football. This shows a full list of games scheduled or played during that week. Another is to leave the search field blank and see schedules or results for the current week. The last way is to search for your favorite college teams by typing team names separated by a semicolon. This shows the current week’s schedules or results for those schools. For example, type Florida; Texas; California to view results for teams with Florida, Texas, or California in their names.

Search results display in the Virtual Viewer as a link so that you can open a Web browser and read a recap of past games or a preview of future games. Press **CTRL+DOWN ARROW** to move between the dates displayed for the week.

Updates have also been made to the MLB, NBA, NFL, and NHL lookup sources in Research It. These have been expanded and now provide links to box scores and game summaries. Each game listed in the Virtual Viewer is now a link. Select any link to launch your Web browser and read a recap and statistics of past games, or a preview of future games. In addition, the MLB Scores lookup source has been revised to list all baseball games together instead of grouping separately into American and National leagues.

# Improvements with Adobe Flash

JAWS can now announce buttons and other items that did not work correctly on some Flash Web sites while using Internet Explorer. Examples of Web sites that now function properly are Audible.com and Dominos.ca.

# Improvements with My Computer in Windows 7

When using My Computer in Windows 7, JAWS not only announces the drive letter and volume label, but now also includes both used and free space on the drive, as well as the percentage of free space. While this information is readily available to sighted users, JAWS now makes it accessible to all users. To open My Computer, press **WINDOWS Key+E**.

# Keyboard Lock

The Keyboard Lock feature is useful when you want to prevent accidental keyboard action. A typical example for locking the keyboard would be when you are transferring files across a network or when a download is in progress. This feature will prevent file transfer or download cancellation if you accidentally press a key. Keyboard Lock is also ideal for JAWS Tandem sessions where it can prevent inadvertent keyboard activity on the target-side computer.

While the keyboard is locked, you can still run JAWS reading commands like Say Line, Say Window Title, and Say Word. For example, you can position the JAWS cursor at a specific location on the screen, and then use the Say Line command to monitor that location while the keyboard is locked. Also, the invisible cursor and the braille cursor can roam the screen without moving the active cursor.

To switch Keyboard Lock on and off, press **INSERT+SPACEBAR, L**. Although this feature locks the keyboard and braille display, it does not affect mouse activity.