# New Features in JAWS, ZoomText, and Fusion 2021

This document provides an overview of the Freedom Scientific software. Learn about new features and enhancements in JAWS, ZoomText, and Fusion.

## FS Software Overview

* JAWS

JAWS, Job Access With Speech, is a screen reader designed for individuals whose vision loss prevents them from seeing screen content or navigating with a mouse. It provides speech and Braille output for navigating the Internet, creating documents, and reading emails. It is widely used at home, at school, and in the workplace.

* ZoomText

ZoomText Magnifier/Reader is a fully integrated magnification and reading application designed for low-vision users. It enlarges and enhances screen content. The speech echoes your typing and essential program activity, plus automatically reads documents, web pages, and email.

* Fusion

Fusion is the ultimate accessibility tool. It includes the ZoomText Magnifier/Reader and the JAWS screen reader. A single installer and one license gives you access to both ZoomText and JAWS. Run them individually, or together as the combined solution – Fusion. It’s a great choice for those who need both solutions, and for organizations serving individuals with vision loss.

## Voice Assistant

The Voice Assistant gives you a new way to interact with JAWS, ZoomText, and Fusion in Windows 10 using your voice. Supported languages include:

* English
* German
* Dutch
* Spanish
* French

Ask the Voice Assistant to perform tasks. Often, multiple commands are available to execute the same task. For example, say “Settings Center” or “Change Settings” to launch Settings Center in JAWS or Fusion.

The Voice Assistant provides direct interaction with the JAWS or ZoomText software, and benefits users who are unable to use a keyboard.

To tell the Voice Assistant to begin listening for a command:

1. Speak the designated wake word to alert the software to begin listening for a command. The wake word for JAWS is “Sharky,” and “Zoomy” for ZoomText and Fusion. A short audio indicator plays and a visual indicator is displayed when the Voice Assistant begins listening for a command.

**Note:** When automatic use of the wake word is turned off, you can launch the Voice Assistant by pressing **INSERT+ALT+SPACEBAR** for JAWS or **CAPS LOCK+ALT+SPACEBAR** for ZoomText or Fusion.

1. Speak a command. Once a command is given, a different audio indicator plays until the command is processed.
2. Change Voice Assistant options in JAWS, ZoomText, or Fusion settings.

Visit the What’s New pages for [JAWS](https://support.freedomscientific.com/Downloads/JAWS/JAWSWhatsNew#Enhancements), [ZoomText](https://support.freedomscientific.com/Downloads/ZoomText/ZoomTextWhatsNew#enhancements), and [Fusion](https://support.freedomscientific.com/Downloads/Fusion/FusionWhatsNew#enhancements) 2021 for sample commands and to learn more about the Voice Assistant and other features.

Check out this [Voice Assistant](https://www.youtube.com/watch?v=8rZxZacwezk) video on our [YouTube Training Channel](https://www.youtube.com/freedomscientifictraining).

### Select a Microphone

You can choose which microphone the Voice Assistant uses when listening for commands. Designating a different microphone for this feature than the one used for other applications such as Teams or Zoom allows you to mute those applications during meetings and still use the Voice Assistant with JAWS, ZoomText, or Fusion. The Microphone input device combo box is located under the Voice Assistant group in Settings Center.

To open Settings Center:

1. Press **INSERT+J** to place focus in the JAWS Window.
2. Press **ALT+U** for Utilities.
3. Press **E** for Settings Center. This places you in the default settings.

If running JAWS from the system tray:

1. Locate JAWS on the desktop and press **ENTER** to access the context menu.
2. Press **U** for utilities, and **S** for Settings Center.

## Convenient OCR

Convenient OCR is a feature that uses optical character recognition, OCR, to recognize text in images. This includes:

* Onscreen images such as the graphical setup screen for an application
* An inaccessible PDF
* An image file in Windows Explorer
* A document acquired by the PEARL camera or a flatbed scanner.

**Access the Convenient OCR layer by pressing INSERT+SPACEBAR, O. Then press:**

* **W** to Recognize the current application window
* **S** to Recognize the entire screen
* **C** to Recognize the currently selected control
* **Q** to cancel recognition while in progress
* **D to recognize a PDF (Use this command when in the file.)**

**Press INSERT+SPACEBAR, O, QUESTION MARK**  for available commands. Press **ESC** to exit the list of commands.

If Microsoft Office is installed, a new feature in the 2021 release enables you to place recognized text directly into a Word document.

1. Place focus on a file saved on your computer.
2. Press **INSERT+SPACEBAR**, **O** followed by **R** to perform OCR and open the document in Word.
3. Alternatively, press the **APPLICATIONS** key for a context menu, and choose Convenient OCR to Word.
4. The Convenient OCR with JAWS option in the context menu sends the results to the traditional Results Viewer instead.
5. If viewing a document in the Results Viewer, locate the Open in Word link at the bottom of the Results Viewer to also open in Word.

## Picture Smart

Picture Smart Uses artificial intelligence (AI) to Describe Images. First included in JAWS and Fusion 2019, this feature sends photos to cloud services for analysis. A description of the image is then displayed in the Results Viewer.

Picture Smart identifies the number of people in a picture, well known landmarks, and activities

To use Picture Smart:

1. Press **INSERT+SPACEBAR**, followed by **P** to activate the Picture Smart layer. Then press:
* **A** to describe a photo acquired from the PEARL camera or a flatbed scanner
* **F** to describe a selected image file in Windows Explorer
* **C** to describe the current control
* **B** to describe an image on the Windows Clipboard

In JAWS and Fusion 2021, you can navigate to images with the Virtual cursor in a browser and send them directly to the cloud

1. If focused on an image that is part of a web page, such as a photo on Facebook, press **INSERT+SPACEBAR**, **P,** then **C to** describe the photo.
2. By default, images are submitted to Microsoft for analyzing. However, the Results Viewer now contains a “More Results” link which submits the image again to additional services for further analysis. An updated description is displayed in the Results Viewer.
3. Add **SHIFT** to a Picture Smart command to use multiple services.

## Microsoft Teams Support

* Documents accessed in the Document Viewer in Microsoft Teams are inaccessible. If you press **ENTER** on a document in the Files list to open this viewer, press **ESC** to return to the files list.
* You will be prompted to access the context menu by pressing **SHIFT+F10**, then open the document in the respective desktop application.
* Press **ALT+1** through **5** to navigate to the first five tab pages.
* Press **ALT+LEFT ARROW** to activate the back button from anywhere in Teams.
* Press **ALT+H** to hang up a call in progress.
* Press **ALT+R** to raise or lower your hand while in a meeting.
* Display meetings and calls in separate windows with fewer controls. To do this:
1. Press **CTRL+COMMA** to open Preferences.
2. Select the check box labeled: "Turn on new meeting experience.” (New meetings and calls will open in separate windows. Requires restarting Teams.)
3. While JAWS specific keystrokes for meetings and calls will not work in this split mode, Microsoft has their own set of keystrokes you can review by pressing **CTRL+PERIOD**.

## Adjust Punctuation and Volume with Keyboard Commands

To adjust punctuation:

1. Press **INSERT+SHIFT+2** on the number row (**CAPS LOCK+SHIFT+2** in the Laptop keyboard layout) to cycle through the four punctuation levels. These control how much punctuation JAWS and Fusion speak while reading. The available levels are:
* None
* Some
* Most
* All
1. The punctuation level will revert back to the previous setting when JAWS or Fusion is restarted. 3. To permanently set a punctuation level, use the JAWS Startup Wizard or Settings Center.

To open Settings Center:

1. Press **INSERT+J** to place focus in the JAWS Window.
2. Press **ALT+U** for Utilities.
3. Press **E** for Settings Center. This places you in the default settings.

If running JAWS from the system tray:

1. Locate JAWS on the desktop and press **ENTER** to access the context menu.
2. Press **U** for utilities, and **S** for Settings Center.

The Startup Wizard runs when JAWS is installed. To open it from within JAWS:

1. Press **INSERT+J** to go to the JAWS window.
2. Press **ALT+H** for Help, then **Z** for the Startup Wizard.

If running JAWS from the system tray:

1. Locate JAWS on the desktop and press **ENTER** to access the context menu.
2. Press **H** for Help, then **Z** for the Startup Wizard.

Note: Due to issues with some Dell keyboards when using the Laptop layout, you may need to use the **RIGHT SHIFT** key to perform this keystroke.

When using conferencing applications such as Zoom and Teams with JAWS, the volume of the speech can be equal to or louder than the meeting or webinar. This makes it difficult to simultaneously navigate in other applications.

To set volume:

1. Press the layered command **INSERT+SPACEBAR**, then **V**.
2. Press **J** to control the volume of JAWS speech or **S** to control the main system volume.
3. Raise or lower the volume in small increments by pressing **UP ARROW** or **DOWN ARROW** respectively.
4. Press **PAGE UP** or **PAGE DOWN** for larger increments.
5. Press **ESC** to exit the layer when finished. Volume changes remain in effect until you adjust them using the same commands.

Note: When adjusting volume with the ARROW keys or PAGE UP and PAGE DOWN, the lowest level that can be set is 10 percent.

## Announce Most Recent Windows Notification

1. Press the layered command **INSERT+SPACEBAR,** then **N** for JAWS to repeat the last spoken Windows notification.
2. If using a Focus braille display, press **RIGHT SHIFT+N** (DOTS 1-3-4-5).
3. To view and manage all your Windows notifications, press **WINDOWS Key+A**.

## Read Math Equations in Microsoft Word

* Read math content with JAWS and Fusion in Word documents using the built-in math creation functionality.
* Insert math equations or formulas through the Insert tab on the ribbon. JAWS will read the problem and specify that it is Math Content.
* Press **INSERT+SPACEBAR**, then **=**to open the JAWS Math Viewer where you can study the equation in greater detail.
* In the Math Viewer, navigate individual parts of an equation, such as variables, terms, coefficients, or exponents. Press **DOWN ARROW** to access a particular component or level. Navigate within a level by pressing **LEFT ARROW** and **RIGHT ARROW**.
* Press **UP ARROW** to navigate back to the prior level.
* If you are using a Braille display with JAWS set to United States English or Unified English Braille Grade 1 or Grade 2, math equations or formulas are displayed in Nemeth Braille.
* Press **ESC** to close the Math Viewer and return to the document.

## Migrate ZoomText Settings

When upgrading to a new version of ZoomText or Fusion, custom settings from prior releases are automatically imported. These include:

* Magnification level
* Color Pointer
* Cursor and mouse enhancements
* Custom settings created for applications

The import begins without prompting the first time you start the new version. Custom settings older than the two previous versions will not be imported.

## Focus Tracking in ZoomText

Focus tracking is improved in both ZoomText and Fusion. For example, when navigating within the Inbox of Microsoft Outlook, especially at higher magnification levels, tracking now stays left justified. This makes it easier to read message sender names when scrolling up and down in the Inbox. This also carries over to Microsoft Teams where there is better focus tracking when navigating screens and options.

## Resources

* What’s New in JAWS 2021

<https://support.freedomscientific.com/downloads/jaws/JAWSWhatsNew>

* What’s New in ZoomText 2021

<https://support.freedomscientific.com/Downloads/ZoomText/ZoomTextWhatsNew>

* What’s New in Fusion 2021

<https://support.freedomscientific.com/Downloads/Fusion/FusionWhatsNew>