Assistive Technology Manual

2026–2027

Published September 21, 2026

Prepared by Cambium Assessment, Inc.

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Overview of Testing with Assistive Technology

This manual provides an overview of the embedded and non-embedded assistive technology tools that can be used to help students with accessibility needs complete online tests in the Test Delivery System (TDS). It includes lists of supported devices and applications for each type of assistive technology that students may need, as well as setup instructions for the assistive technologies that require additional configuration in order to work with TDS.

- Embedded assistive technology tools include the built-in test tools in TDS, such as the text-to-speech and speech-to-text tools. These tools can be accessed without third-party software or hardware and do not require Permissive Mode to be turned on in TDS.
  - The embedded text-to-speech, word prediction, speech-to-text, and zoom tools in TDS are available on supported desktop and mobile devices.

- Non-embedded assistive technology tools are the third-party accessibility hardware and software that students use to help them complete tests in TDS. These tools require Permissive Mode to be turned on in TDS and may require additional configuration steps prior to testing.
  - **Most of the non-embedded assistive technology tools covered in this manual are supported by Windows and macOS desktops only.** Mobile devices, such as Chromebooks and iPads, do not support Permissive Mode, which is required for non-embedded technology. More detailed system requirements are provided for each assistive technology tool throughout this manual.
  - Permissive Mode on macOS is supported with Secure Browser 18.0. Ensure that the proper Secure Browser version is downloaded from the MSTAR Portal to allow for testing with Permissive Mode.

Students who use assistive technology tools to interact with a standard web browser should be able to use those same tools with TDS, unless they are web-based applications or browser extensions. The best way to test compatibility for tools is to take a practice test in the Secure Browser with those tools turned on. If they do not work, refer to the additional configuration instructions in this manual as required.

Note that the assistive technology instructions in this manual are created at the start of the school year and may change due to updates from the software providers and hardware manufacturers. Please refer to the providers' and manufacturers' instructions.

If you still have questions about the assistive technology covered in this guide, please contact the Help Desk.

For more information about taking practice tests, refer to the *Test Administrator User Guide*.

The manual includes the following sections:

- Testing with Speech-to-Text Technology
- Testing with Word Prediction Technology
- Testing with Alternative Computer Input Technology
- Testing with Assistive Keyboard and Mouse Input Technology
- Testing with Screen Magnifier Technology
- Testing with Text-to-Speech
- Testing with Assistive Technology for Braille Tests

Using Permissive Mode with Assistive Technology

Permissive Mode is a TDS accommodation that allows students to use non-embedded assistive technology to complete tests in the Secure Browser. It must be turned on for any students testing with third-party assistive technology tools. When Permissive Mode is turned on, the Secure Browser's security settings will be partially lowered to allow students to use tools that would otherwise be blocked. This accommodation should be assigned to students in TIDE before they begin testing. For more information, refer to the *TIDE User Guide*.

Permissive Mode is only available for computers running supported desktop Windows and macOS operating systems. Permissive Mode on macOS is supported with Secure Browser 18.0. When using Windows devices, the taskbar remains on-screen throughout the test after enabling accessibility software. However, forbidden applications are still prohibited.

Permissive Mode activates when students are approved for testing in TDS. The student's assistive technology should already be set up for use with TDS when they begin testing with Permissive Mode.

When Permissive Mode is turned on, standard keyboard commands in the Secure Browser will be disabled in order to accommodate any potential keyboard commands associated with the assistive technology the student may be using. For information about standard keyboard commands in the Secure Browser, refer to the *Test Administrator User Guide*.

Note: Some of the tools covered in this document may include prohibited features that students can access, even when Permissive Mode is enabled. For such tools, it is recommended that Test Administrators monitor students while testing to ensure they do not use any prohibited features.

How to Use Assistive Technology with Permissive Mode on Windows

Students can follow the instructions in this section to use assistive technology alongside the Secure Browser with all supported Windows operating systems.

1. Open the required accessibility software on the student's testing device.

2. Open the Secure Browser. Begin the standard sign-in process up to the proctor approval step.

3. When a student is approved for testing, the Secure Browser allows the operating system's menu and taskbar to appear.

   - **Windows:** The Secure Browser resizes, and the taskbar remains visible inside the test in its usual position. Students can press **Alt**+**Tab** to switch between the Secure Browser and accessibility applications that they are permitted to use in their test session.

4. The student must immediately switch to the accessibility software that is already open on the computer so that it appears over the Secure Browser. The student cannot select within the Secure Browser until the accessibility software is configured.

   - **Windows:** Select the accessibility software application in the taskbar.

5. The student configures the accessibility software settings as needed.

   - If the student needs to test with multiple accessibility applications simultaneously, they should configure all of them during this step.

6. After configuring all the necessary accessibility software settings, the student returns to the Secure Browser and continues the sign-in process. At this point, the student can no longer switch back to the accessibility software. If changes need to be made to the accessibility software, the student must sign out and then sign in again.

How to Use Assistive Technology with Permissive Mode on macOS

The Secure Browser 18.0 for macOS requires students to launch approved accessibility software after logging in to the test.

1. Open the required accessibility software on the student's testing device and configure the accessibility software settings as needed.

2. Open the Secure Browser and follow the standard sign-in process.

3. On the first page of the test, select **Applications**  in the global menu. From the ***App Launcher*** window that pops up, select the appropriate assistive technology software and select **OK**.

4. Return to the Secure Browser and continue testing.

   - **Note**: Students should not close the assistive technology application while the Secure Browser is still open, as they may not be able to relaunch it. If the student accidentally closes the assistive technology application, they must sign out and then sign in again.

How to Use Built-In Assistive Technology on iPadOS

The Mobile Secure Browser on iPadOS does not support Permissive Mode. However, some of the built-in tools can be used during testing. Note that some tools work inconsistently and are not supported, but may be used if a student can get the tool to work to their satisfaction. Tools that may be used but are not supported are VoiceOver, Switch Control, and Voice Control.

The following built-in accessibility tools may be used in conjunction with the Mobile Secure Browser and are currently supported:

- Full Screen Zoom
- Window Zoom
- Pinned Zoom

How to Use Built-In Assistive Technology on ChromeOS

Similar to iPadOS, the Mobile Secure Browser does not support Permissive Mode, but certain built-in tools can be used during testing. The following built-in accessibility tools may be used in conjunction with the Mobile Secure Browser; however, they may only be turned on and off in the Admin Console.

- Full Screen Magnifier
- Docked Magnifier
- Sticky Keys (note that the Global Navigation Shortcut is not available with Sticky Keys)
- Large Cursor

To make changes from the Admin Console, please follow the guidelines suggested by Google.

Note: Users may need to restart their systems for the tools to take effect.

Testing with Speech-to-Text Technology

Speech-to-text (STT) technology transcribes a student's spoken words into text for item responses in TDS. Students with the appropriate accommodations may use STT assistive technology while taking tests. It is recommended that students use the embedded STT tool in TDS.

Students using STT technology will need to use a headset while testing. Any wired headset with a 3.5mm or USB connection should be compatible.

Table 1 provides a list of third-party STT applications that can be used in TDS.

Table 1. Third-Party STT Applications

Product	System Requirements	Additional Details
Dragon NaturallySpeaking **Home & Individual Professional for Windows** • **Supported Version: 15,16 Professional**	• **Operating Systems**: Windows 11, 12[a], Server 2016 R2 • **Minimum Requirements**: 2.2 GHz dual core or equivalent AMD Processor, 4 GB RAM	• Requires additional setup before use in TDS (refer to configuration instructions). • TDS cannot confirm appropriate configurations are in use during an exam, so students may be able to access prohibited features. • Dragon NaturallySpeaking Home was discontinued. However, you can continue to use it if it is already installed on student devices. Use this application at your discretion.
Windows Built-in Speech Recognition • **Supported Version: 8.0**	• **Operating Systems**: Windows 11, 12[a], Server 2016 R2	• Requires additional setup before use in TDS (refer to configuration instructions). • TDS cannot confirm appropriate configurations are in use during an exam, so students may be able to access prohibited features. • On Windows 11 22H2 and later, Windows Speech Recognition will be replaced by voice access starting in September 2024. However, you can continue to use it if it is already installed on student devices.
Windows Voice Access	• **Operating Systems**: Windows 11 22H2 and up	• Requires additional setup before use in TDS (refer to configuration instructions). • TDS cannot confirm appropriate configurations are in use during an exam, so students may be able to access prohibited features.
WordQ+SpeakQ (WordQ5) **Supported Version: 5.4.30**	• **Operating Systems**: Windows 11, 12[a], Server 2016 R2 • **Minimum Requirements**: 1 GHz or faster, 2 GB RAM	• Requires additional setup before use in TDS (refer to configuration instructions). • Exam Mode must be enabled before students begin testing. • This tool also includes a text prediction feature that cannot be disabled.

Product	System Requirements	Additional Details
Read&Write—Windows • **Supported Version: 12.0.81**	• **Operating Systems**: Windows 11, 12[a], Server 2016 R2 • **Minimum Requirements**: 1.6 GHz or faster x86-bit or x64-bit dual core Processor, 2 GB RAM	• Exam Mode must be enabled before students begin testing. • Also includes text prediction features that students may use if they have the proper accommodations. • Locked Browser Mode disables the STT functionality in Read&Write. You should not use Locked Browser Mode when using Read&Write for STT.

[a]Support for this version is anticipated upon the completion of testing following its release.

Configuring Speech-to-Text Applications

Some applications listed in Table 1 require additional configuration before use during online testing. Necessary configurations are described below. Some applications send data to the cloud for processing by default. Where noted, this should be disabled to ensure the security of test data.

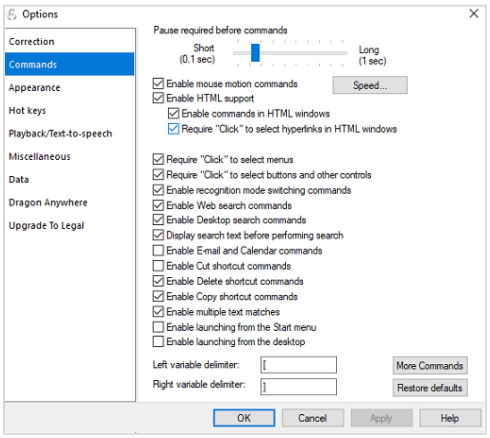
After you configure an application, CAI strongly recommends testing that application on a practice test administered through the Secure Browser prior to using it for operational testing.

Dragon NaturallySpeaking Home or Professional Individual for Windows

Necessary configurations for Dragon NaturallySpeaking can be made from the **Options** dialog box, which is accessed from the **Tools** drop-down menu on the DragonBar.

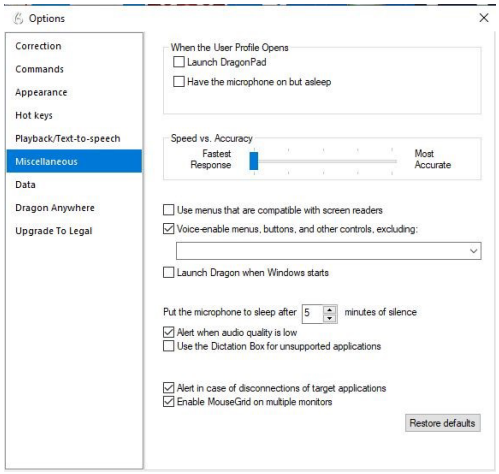
- From the **Commands** tab, clear the checkboxes for the following settings:
  - **Enable launching from the Start menu**
  - **Enable launching from the desktop**
  - **Enable E-Mail and Calendar commands**
  - **Enable Cut shortcut commands**

Figure 1. Dragon Options Commands Tab



- From the Miscellaneous tab, clear the checkbox for Use Dictation Box for unsupported application.

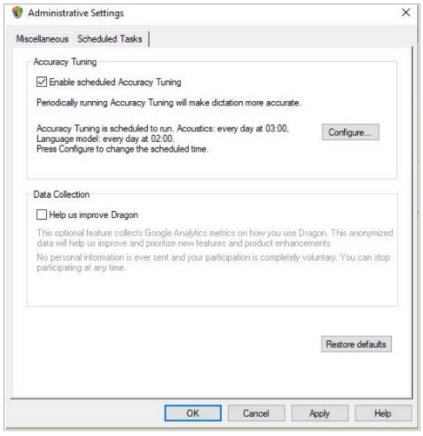
Figure 2. Dragon Options Miscellaneous Tab



- In the **Scheduled Tasks** tab of the ***Administrative Settings*** window, do one of the following:
  - In Dragon 16, clear the checkbox for **Help us Improve Dragon**.

- In Dragon 15, clear the checkbox for **Enable scheduled Data Collection**

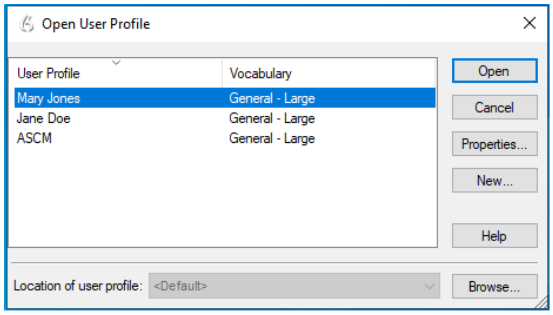
Figure 3. Administrative Settings Scheduled Tasks Tab (Dragon 16)



Setting Up User Profiles for Students in Dragon

Dragon NaturallySpeaking requires each student to use a specific User Profile. You will need to create User Profiles and ensure that Dragon NaturallySpeaking is set to the proper profile for each student prior to testing. When creating a profile, you can select the student's age range, language, and accent, as well as set the audio input devices. Students will then read aloud prompts that Dragon NaturallySpeaking uses to learn their voice. After creating profiles, you can select **Profiles** in the Dragon toolbar, then select **Open User Profile…** to switch between User Profiles (refer to Figure 4). For more information about creating User Profiles, refer to the Dragon NaturallySpeaking—Windows website.

Figure 4. Dragon NaturallySpeaking—Open User Profile



Windows Speech Recognition

Prior to testing day, the Windows built-in Speech Recognition application must be set up on each testing device that will be used by students who require STT. The application can be set up through the Windows Control Panel. Users should set the device to not send data to Microsoft for improvement so that secure test data is not sent to the cloud. During setup, Speech Recognition Voice Training must be completed by the student for optimal performance.

- To prevent Windows from sending data to the cloud, go to **Start > Settings > Privacy > Diagnostics & Feedback** and mark the **Basic** radio button in the *Diagnostic Data* section. Then select the **Speech** tab and set the **Online Speech Recognition** toggle to **Off**.
- While Windows Speech Recognition is processing speech, the testing site may slow down. If transcription is not needed for testing, make sure Windows Speech Recognition is not listening to prevent this slowness from interfering with the test performance.

Voice Access

Voice Access should be set up on each testing device that will be used by students who require STT. Users should set the device to not send data to Microsoft for improvement so that secure test data is not sent to the cloud.

- To prevent Windows from sending data to the cloud, go to **Start** > **Settings** > **Privacy & Security** > **Speech** and set the **Online Speech Recognition** toggle to **Off**.

WordQ SpeakQ (WordQ5)

To minimize security risks, WordQ+SpeakQ (WordQ5) includes an Exam Mode feature, which can be enabled through the application's settings. Exam Mode requires a time limit of 1–12 hours to be set. Please note, this does not eliminate all security risks, and once Exam Mode has been set, it cannot be disabled until the configured time has run out.

To turn on Exam Mode, select the **Options** icon, and select **Exam Mode**. In the dialog pop-up window that appears, you can allow or restrict the **Word usage examples** and **Single words added by the user including topic words** features. You can also set the exam time limit at the bottom of the window.

Read&Write

Read&Write has an Exam Mode that can be used to turn off features for a single student on their testing device. When Exam Mode is enabled, the student will have access to only the selected features on the toolbar and certain speech settings, including Voice Selection, Speed, Pitch, and Speak As I Type (the full settings menu will not be accessible).

To use Exam mode, run Read&Write, select the settings button in the top-right corner, and select **Show more settings**. In the *Find a Setting* field, type *adminsettings*. Enter and confirm a password to grant access on this computer. When logged in to administrator settings, select the **Select your features** tab and select which features you'd like to enable on the student's toolbar. Enable the **Use Exam Mode now** toggle to start Exam Mode, then close the Read&Write menu to start the exam.

Testing with Alternative Computer Input Technology

Alternative Computer Input (ACI) assistive tools allow students with various disabilities (such as physical and visual disabilities) to interact with a computer without using a traditional mouse and keyboard setup. For instance, ACI technology such as PCEye Mini tracks students' eye movement, while Dwell Clicker 2 allows students to use a mouse or other pointing device without having to select the left or right mouse buttons.

TDS does not include any embedded alternative computer input tools, but it supports several non-embedded alternative computer input technologies.

Table 2 provides a list of third-party ACI devices that can be used in TDS. Please note that this list includes only the devices that CAI has thoroughly tested against the Secure Browser, but there may be additional supported ACI devices that work in the Secure Browser but have not been tested yet. If your students need to use an ACI device not listed here, please test it in a practice test first to ensure there are no issues with it.

Table 2. Third-Party ACI Devices

Product	System Requirements	Additional Details
Dwell Clicker 2 • Supported Versions: 2.0.1.8	• **Operating Systems**: Windows 11, 12[a], Server 2016 R2 • Minimum Requirements: N/A	• Requires additional setup before use in TDS (refer to configuration instructions).
HeadMouse Nano	• **Operating Systems**: Windows 11, 12[a], Server 2016 R2 • Minimum Requirements: N/A	• Requires additional setup before use in TDS (refer to configuration instructions).
Access Switch	• **Operating Systems**: Windows 11, 12[a], Server 2016 R2 • macOS 14.6, 15, 26, 27[a] • Minimum Requirements: N/A	N/A
Swifty • Supported Versions: SW2	• **Operating Systems**: Windows 11, 12[a], Server 2016 R2 • macOS 14.6, 15, 26, 27[a] • Minimum Requirements: N/A	• Requires additional setup before use in TDS (refer to configuration instructions).

[a]Support for this version is anticipated upon the completion of testing following its release.

Testing with Word Prediction Technology

Word prediction assistive technology suggests words to students as they type responses for test items. It is recommended that students use the embedded Co:Writer word prediction tool in TDS, which is supported on all devices for most subjects.

- **Note**: Math tests do not work with word prediction on Windows and macOS devices.
- **Note**: Embedded word prediction does not work with screen readers.

Students should use an external keyboard in order for word prediction to function correctly in iPadOS. If a third-party word prediction tool still needs to be used, please reference the table below.

Table 3 provides the technology requirements for students testing with word prediction assistive technology.

Table 3. Third-Party Word Prediction Applications

Product	System Requirements	Additional Details
WordQ+SpeakQ (WordQ5) • Supported Version: 5.4.0	• **Operating Systems**: ▪ Windows 11, 12[a], Server 2016 R2 ▪ macOS 14.6, 15, 26, 27[a] • **Minimum Requirements**: 1 GHz or faster, 2 GB RAM	• Requires additional setup before use in TDS (refer to configuration information). • Exam Mode must be enabled before students begin testing.
Read&Write for Windows & macOS • Supported macOS Versions: 7.2 • Supported Windows Version: 12.0.81	• R&W 7.2 is compatible with macOS 14.6, 15, 26, 27[a] • R&W 12.0.81 is compatible with Windows 11, 12[a], Server 2016 R2 • Operating Systems: ▪ macOS 14.6, 15, 26, 27[a] ▪ Windows 11, 12[a], Server 2016 R2 • **Minimum Requirements**: 1.6 GHz or faster, 2 GB RAM	• TDS cannot confirm appropriate configurations are in use during an exam, so students may be able to access prohibited features. • Requires additional setup before use in TDS (refer to configuration information). • The Windows version also includes speech-to-text functionality that students may use if they have the proper accommodations. • To use text prediction feature in Windows, students can press the available function keys from F1 to F8. • Includes a Screen Recording feature that should be disabled for Read and Write via **System Settings** > **Privacy & Security** > **Screen Recording**.

[a]Support for this version is anticipated upon the completion of testing following its release.

WordQ5

To minimize security risks, WordQ includes an Exam Mode feature, which can be enabled through the application's settings. Exam Mode requires a time limit of 1–12 hours to be set. Please note, this does not eliminate all security risks, and once Exam Mode has been set, it cannot be disabled until the configured time has run out.

To turn on Exam Mode, select the **Options** icon, and select **Exam Mode**. In the dialog popup window that appears, you can allow and restrict the **Word usage examples** and **Single words added by the user including topic words** features. You can also set the exam time limit at the bottom of the window.

Configuring Read&Write for Windows

Read&Write has an Exam Mode that can be used to turn off features for a single student on their particular testing device. This feature is not currently available for macOS. When Exam Mode is enabled, the student will have access to only the selected features on the toolbar. For students requiring word prediction, Word Prediction should be enabled. Read&Write for Windows also includes text-to-speech and speech-to-text (talk & type) features, which should be enabled for students with the proper accommodation settings only.

To use Exam mode, run Read&Write and select the settings button in the top-right corner, then select **Show more settings**. In the *Find a Setting* field, type *adminsettings*. Enter and confirm a password to grant access on this computer. This username and password are associated with the administrative account for your Read&Write subscription. When logged in to administrator settings, select the **Select your features** tab and select which features you'd like to be enabled on the student's toolbar. Enable the **Use Exam Mode now** toggle to start Exam Mode, then close the Read&Write menu to start the exam.

Configuring PCEye Mini with Windows Control on Student Devices

To configure the PCEye Mini, it should be plugged into a computer that uses Windows Control software and should be installed by following the product's installation instructions manually. For students using PCEye Mini with Windows Control Software, the Word Prediction feature should be disabled by opening the application and navigating to **Settings** > **Keyboard**.

Configuring Dwell Clicker 2

To configure Dwell Clicker 2 settings, open the application and select the keyboard icon, then select the **Options** key. In the window that pops up, make sure the **Use Text Prediction** checkbox is not checked.

Configuring HeadMouse Nano

To configure HeadMouse Nano when using the SofType keyboard, open the SofType application and select **View** > **Word Bar** from the menu. Then make sure the **Prediction** radio button is not marked.

Configuring Swifty: SW2

To configure Swifty Switch Access for the student's needs, the following DIP Switches should be set. After you modify DIP Switch settings, unplug and re-plug Swifty to activate the settings.

Table 4. DIP Switches

Switch 1	Switch 2	USB Device	Interface Actions
ON	ON	Mouse	Left, Right, Middle
OFF	ON	Joystick	Btn1, Btn2, Btn3
ON	OFF	Keyboard (For iPad)	Enter, Space, Tab
ON	OFF	Keyboard	1,2, 3

Testing with Assistive Keyboard and Mouse Input Technology

Assistive Keyboard and Mouse Input tools provide additional support to students with physical disabilities who need to use a keyboard and mouse in order to respond to test items. These include keyboards with larger keys, computer mice with trackballs, and other tools that make it easier for students with limited movement abilities to use a computer.

TDS does not include any embedded assistive keyboard and mouse input tools, as these tools typically involve the use of special hardware, but TDS does support several third-party assistive keyboard and mouse input tools.

Table 5 provides a list of third-party assistive keyboard and mouse input tools that can be used in TDS. Please note that there may be additional supported assistive keyboards and mouse input tools that have not been tested yet. If your students need to use a device not listed here, please test it in a practice test first to ensure there are no issues.

Some third-party assistive keyboards have special function keys that put the computer to sleep. If pressed, the computer will go to sleep, and the student will be kicked out of the test and have to sign back in to resume testing.

Table 5. Third-Party Assistive Keyboard and Mouse Input Technology

Product	System Requirements	Additional Details
Keys-U-See Keyboard	• **Operating Systems**: Windows 11, 12[a], Server 2016 R2 • macOS 14.6, 15, 26, 27[a] • Minimum Requirements: N/A	• Keys-U-See has been discontinued by the manufacturer. However, you can continue to use this tool. Use this at your discretion. CAI recommends you test it out on a sample test in the Secure Browser before using it for an operational test.
BigKeys Keyboard • Supported Versions: Plus, LX	• **Operating Systems**: Windows 11, 12[a], Server 2016 R2 • macOS 14.6, 15, 26, 27[a] • Minimum Requirements: N/A	• Big Keys has been discontinued by the manufacturer. However, you can continue to use this tool. Use this at your discretion. CAI recommends you test it out on a sample test in the Secure Browser before using it for an operational test.

Product	System Requirements	Additional Details
BigTrack2 Trackball	• **Operating Systems**: Windows 11, 12[a], Server 2016 R2 • macOS 14.6, 15, 26, 27[a] • Minimum Requirements: N/A	N/A

[a]Support for this version is anticipated upon the completion of testing following its release.

Testing with Screen Magnifier Technology

Screen magnifier assistive technology enlarges the content displayed on the computer screen in order to assist students with visual disabilities. Although TDS supports some non-embedded screen magnifier tools from third parties, it is recommended that students use the embedded zoom tools in TDS. These embedded tools were designed to magnify test content in the most intuitive and user-friendly manner for students.

The embedded zoom tools in the Secure Browser allow students to magnify test content to the following levels (any zoom levels of 5X and greater require users to turn on the Secure Browser's streamlined mode setting, which arranges test content vertically):

- 1X
- 1.5X
- 1.75X
- 2.5X
- 3X
- 5X
- 10X
- 15X
- 20X

Table 6 provides a list of third-party screen magnifier tools that can be used in TDS. Note: Both the built-in magnifier and zoom features for iPadOS and ChromeOS can be used on both platforms with the Secure Browser. Users should practice testing with these features before taking an assessment to ensure that there are no issues.

The non-embedded and built-in screen magnifier tools come with an increased risk of interoperability issues, require students to manually pan the magnification tool across the screen, and can include unwanted features that should not be used while testing.

Table 6. Third-Party Screen Magnifier Applications

Product	System Requirements	Additional Details
ZoomText Magnifier • Supported Versions: 2024, 2025, 2026	• **Operating Systems**: Windows 11, 12[a], Server 2016 R2 • **Minimum Requirements**: 2.0 GHz i7 dual core Processor, 16 GB RAM	• ZoomText includes a SpeakIt text-to-speech tool that could be used to read aloud passages, which is not permitted on ELA tests. It has other reading modes which are functional in the Secure Browser. Students testing with ZoomText should use the magnification features only. It is recommended that students requiring text-to-speech (TTS) support use the Secure Browser's embedded TTS tools, and that students requiring screen readers use JAWS or Fusion. Students are advised to mute speech on ZoomText if using TTS.
Fusion (combines JAWS screen reader with zoom text) • Supported Versions: 2024, 2025, 2026	• **Operating Systems:** Windows 11, 12[a], Server 2016 R2 • **Minimum Requirements:** 2.0 GHz i7 dual core processor, 16 GB RAM	• Requires additional setup before use with TDS (refer to configuration instructions for JAWS).

[a]Support for this version is anticipated upon the completion of testing following its release.

Testing with Text-to-Speech

Text-to-Speech (TTS) tools read aloud text that appears on the screen for students who may have difficulties reading. TDS includes embedded TTS tools that can be turned on for students with the appropriate accommodation settings (either in TIDE or from the TA Site). In order for students to test with TTS tools, a supported voice pack will need to be installed on their device before testing begins (if the device does not already include a built-in voice pack). Students testing with TTS should also have a supported headset or headphones.

For more information about enabling English and Spanish voice packs, refer to the Windows, macOS, and Chrome support pages on this topic.

Embedded TTS is available on all operating systems supported by TDS. However, TTS tracking does not function correctly on Linux devices. If students require the use of this accommodation (TTS with tracking), they must use a different operating system.

Embedded TTS in Windows, macOS, and iPads includes a feature that allows students to pause and then resume TTS in the middle of a passage. On Chromebooks, however, students should highlight the desired text to be read, as the pause feature does not allow students to pause and resume reading again.

Table 7 lists the voice packs supported for students testing with TTS. Students can verify that TTS works on their computers by logging in to a practice test session and selecting a test for which TTS is available. Students using TTS for the practice tests must log in using a supported Secure Browser or a supported Chrome, Firefox, or Edge browser.

Table 7. Technology Requirements for Students Testing with TTS

Supported Voice Packs

• Windows
  ▪ For English tests: All built-in voice packs
  ▪ For Spanish tests: Spanish (Mexico)
• macOS built-in voice packs
• iPadOS built-in voice packs
• Chromebook built-in voice packs
• Heather Infovox iVox HQ (macOS only)
• Rosa Infovox iVox HQ (macOS only)

Note: CAI strongly encourages schools to test the TTS settings before students take operational tests. You can check these settings through the diagnostic page. From the student practice test login screen, select **Run Diagnostics**, and then select **Text-to-Speech Check**.

Note: The Mobile Secure Browser uses either the device's built-in voice pack or a voice pack embedded in the Secure Browser. Additional voice packs downloaded to a mobile device are not recognized by the Mobile Secure Browser.

Assistive Technology for Screen Readers

Table 8 provides a list of supported screen reader software that students can use in TDS. **Please note that only JAWS may be used on ELA and Reading tests, as this is the only supported screen reader that can effectively mute reading passages.** Screen readers other than JAWS must not be used on ELA and Reading tests, as they would allow students to listen to passages instead of reading them, compromising the ability to assess their reading comprehension skills.

Table 8. Screen Readers Supported for Student Computers

Screen Reader	System Requirements	Additional Details
JAWS–Student • **Supported Versions: 2024, 2025, 2026**	• **Operating Systems**: Windows 11, 12[a] • **Minimum Requirements**: 2.0 GHz i7 dual core Processor, 16 GB RAM	• Requires additional setup before use with TDS (refer to configuration instructions). • Test Presentation setting must be set to braille, whether or not student is a braille user.
VoiceOver	• **Operating Systems:** macOS 14.6, 15, 26, 27[a]	• Students cannot use VoiceOver for ELA tests, as the read-aloud of passages cannot be suppressed in this product. • Test Presentation setting must be set to braille, whether or not student is a braille user. • Requires additional setup before use with TDS (refer to configuration instructions).
Fusion • **Supported Versions: 2023, 2024, 2025**	• **Operating Systems**: Windows 11, 12[a], Server 2016 R2 • **Minimum Requirements**: 2.0 GHz i7 dual core processor, 16 GB RAM	• Requires additional setup before use with TDS (refer to configuration instructions for JAWS). • Test Presentation setting must be set to braille, whether or not student is a braille user.
Windows Narrator • **Supported Versions: Windows 11, 12[a]**	• **Operating Systems**: Windows 11, 12[a]	• Students cannot use Windows Narrator for ELA tests, as the read-aloud of passages cannot be suppressed in this product.
NVDA • Supported Versions: 2023–2026	• **Operating Systems**: Windows 11, 12[a], Server 2016 R2 • **Minimum Requirements**: 1.0 GHz processor, 256 MB RAM	• Students cannot use NVDA for ELA tests, as the read-aloud of passages cannot be suppressed in this product. • Test Presentation setting must be set to braille, whether or not student is a braille user.

[a]Support for this version is anticipated upon the completion of testing following its release.

Table 10 provides a list of embossers and embossing software supported for TA computers. Embossers must be used to print any test content that cannot be read by RBDs, including all content in Mathematics and Science tests, and some of the content in ELA and Social Sciences tests. Different embossing software is required for printing PRN and BRF file types. The printed file types depend on the content being embossed.

Table 9. Embossers and Embossing Software Supported for TA Computers

Embosser / Embossing Software	System Requirements	Additional Details
Duxbury Braille Translator • **Supported Versions: 12.1, 12.2, 12.3, 12.4, 12.5, 12.6 or 12.7**	• **Operating Systems**: Windows 11, 12[a] • **Minimum Requirements**: 1 GHz Processor, 1 GB RAM (for 32-bit), 2 GB RAM (for 64-bit)	• Requires additional setup before use with TDS (refer to configuration instructions). • Used for embossing BRF files (from print requests containing only text or formatted tables).
BrailleBlaster • **Supported Versions: 2.1.9, 2.1.8, 2.1.7, 2.1.6, 2.1.5, 2.1.4, 2.1.3, 2.1.2**	• **Operating Systems**: Windows 11, 12[a] • **Minimum Requirements**: 1 GHz Processor, 1 GB RAM (for 32-bit), 2 GB RAM (for 64-bit)	• Requires additional setup before use with TDS (refer to configuration instructions). • Used for embossing BRF files (from print requests containing only text or formatted tables).

Embosser / Embossing Software	System Requirements	Additional Details
ViewPlus Max Embosser, ViewPlus Premier Embosser, or Viewplus Rogue Embosser **ViewPlus Columbia Embosser, ViewPlus Columbia 2 Embosser** PixBlaster	• **Operating Systems**: Windows 11, 12[a]	• Requires additional setup before use with TDS (refer to configuration instructions). • Used for embossing PRN files (from print requests with tactile or spatial components, such as images). • PRN files are formatted for a specific printer driver (e.g., Max embosser). Thus, you may need to convert the PRN file in Tiger Designer for use with another supported embosser (refer to PRN conversion instructions for more details). • ViewPlus Max printer has been discontinued by the manufacturer but is supported by CAI. We will continue to support Max embosser files, since these are default files. The ViewPlus Max can be replaced by ViewPlusRogue. Max files will always be the default and are backwards compatible with the Rogue.
ViewPlus Driver **(driver for ViewPlus Embossers and Tiger Viewer Software)**	• **Operating Systems**: Windows 11, 12[a]	• Download and install your embosser driver prior to embossing any files. • The Tiger Viewer software is downloaded in the printer driver folder.
Tiger Software Suite (Tiger Designer) • Supported Versions: 6, 7, 8	• **Operating Systems**: Windows 11, 12[a] • **Minimum Requirements**: 1.0 GHz i5 dual core Processor, 1 GB RAM	• You should download Tiger Designer prior to testing, as some PRN files will need to be converted in this program before embossing. • Please refer to PRN conversion instructions for more details. • Tiger Software Suite is included with all ViewPlus embossers and its license can be used on up to two devices.

[a]Support for this version is anticipated upon the completion of testing following its release.

Specifications for TAs Using Screen Readers

If a TA requires the use of a screen reader to set up or administer test sessions in the TA Site, CAI recommends they do so using the most recent Firefox or Chrome browser. If issues occur while updating browsers, please contact your network administrator/IT office.

Understanding JAWS 2026 in Secure Testing

JAWS 2026 introduces AI-assisted accessibility and remote support capabilities that improve usability during everyday instruction. While beneficial in general educational settings, some of these features are not appropriate during high-stakes assessments because they may provide unintended assistance, communicate with external services, or enable remote access. District technology teams should ensure these features are restricted when JAWS is used with a secure testing platform.

Critical Testing Integrity Risks

- **AI Page Summarization (Page Explorer)**
  - Uses AI to summarize page content and assist navigation. During a secure assessment, this capability could summarize protected reading passages or test questions, providing information beyond the intended testing experience.
- **AI-Assisted Labeling (AI Labeler)**
  - May use external AI services to generate accessibility labels for interface elements. Features that rely on external services should be disabled during secure testing to prevent protected content from leaving the controlled testing environment.
- **Remote Assistance (JAWS Tandem)**
  - Allows one computer to remotely connect to another for assistance. Remote access is incompatible with secure testing requirements because it could permit unauthorized observation or assistance during an assessment.

How These Risks are Managed (Mitigation)

- **Enterprise Configuration**
  - District technology staff can deploy JAWS using enterprise installation and administrative settings that disable AI-assisted and internet-dependent capabilities before testing.
- **Administrative Restrictions**
  - JAWS can be configured to operate in a restricted testing mode that disables features not appropriate for secure assessments.
- **Secure Browser Controls**
  - The Secure Browser limits functionality to only what is required for testing and helps prevent unauthorized interactions.

- **Network Restrictions**
  - District network policies allow communication only with approved testing services, preventing AI and remote-support features from accessing external infrastructure.

Summary

When deployed using district-approved configurations and the Secure Browser, JAWS 2026 can continue to support students who require assistive technology while preserving assessment security. Districts should verify that AI-assisted features, external service integrations, and remote assistance capabilities are disabled or appropriately restricted before administering high-stakes assessments.

Configuring JAWS Screen Readers on Student Computers Before Testing Begins

This section includes instructions for the additional JAWS configuration steps that Technology Coordinators must follow before students use JAWS for online testing. To ensure JAWS is properly configured, students should take practice tests using JAWS before taking operational tests.

The configuration instructions in this section apply to JAWS 2023, JAWS 2024, and JAWS 2025 as well as Fusion.

Configuring JAWS to Recognize the Secure Browser

You must edit the JAWS configuration file so that the software recognizes the Secure Browser.

1. To modify the configuration file, open the JAWS **ConfigNames.ini** file. This file may appear in two folders. Depending on how JAWS is installed on your computer, you may need to modify both files. The examples below are for JAWS 2024 installed to the default location. If your version is installed to a different location, navigate to the appropriate directory.
   - **Always modify the file in this folder**: Start > All Programs > JAWS 2024 > Utilities- -JAWS 2024 > Explore Shared Settings
   - **Modify the file in this folder as needed**: Start > All Programs > JAWS 2024 > Utilities- -JAWS 2024> Explore My Settings
2. In the **ConfigNames** file, locate the line of text containing `firefox:3=firefox`. At the end of this line, press **Enter** and type `STATESecureBrowser18.0=firefox`
3. Save the file.
   a. If you receive an error that you don't have permission to save the .ini file to this location, save the file as `ConfigNames.ini` to your desktop. Then copy the updated .ini file to the folder containing the original .ini file referenced in step 1.
4. *Optional*: To confirm that JAWS has been properly configured, you can open the Secure Browser while JAWS is running. Then press and hold down **Insert** (or the **JAWS** key) while pressing **Q** twice. A message opens in a pop-up window, indicating that Secure Browser settings are being used in the *MD*SecureBrowser.exe application, and that the configuration name is CAI Testing.

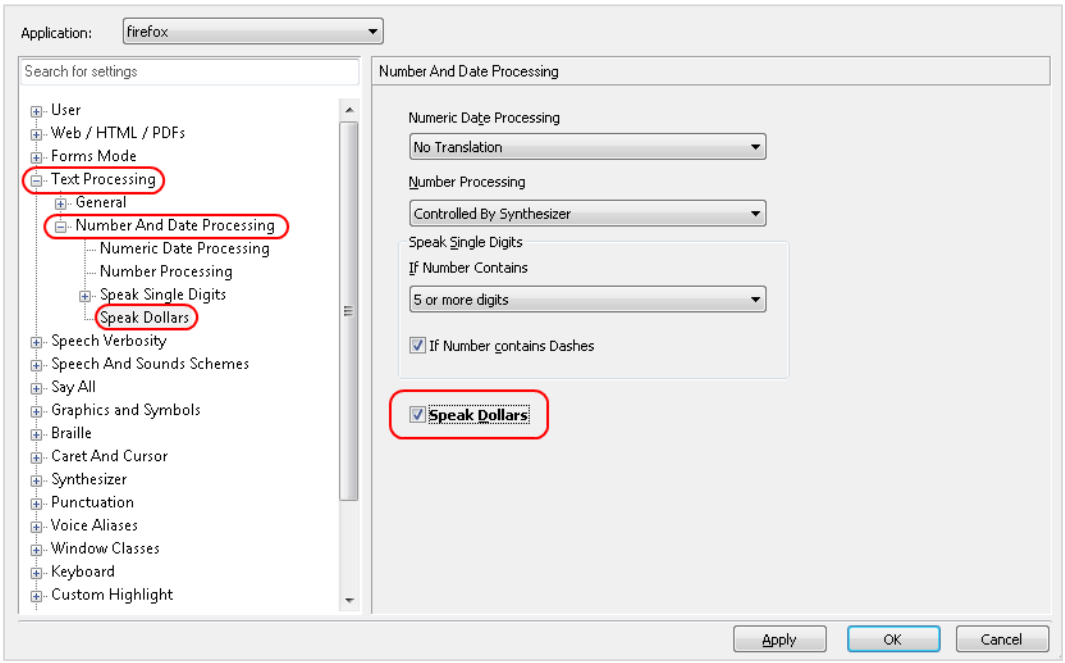
Configuring JAWS to Speak "Dollars"

You should configure JAWS to correctly speak the dollar symbol ($), in case it appears in the test content.

1. Open JAWS and go to **Utilities** > **Settings Center**. The ***Settings Center*** window opens.

2. In the *Search for settings* panel on the left, expand the *Text Processing* settings and *Number And Date Processing* sub-settings. Select **Speak Dollars**. The ***Settings Center*** window displays the *Number And Date Processing* options (refer to Figure 7).

Figure 5. Number and Date Processing



3. Mark the **Speak Dollars** checkbox.

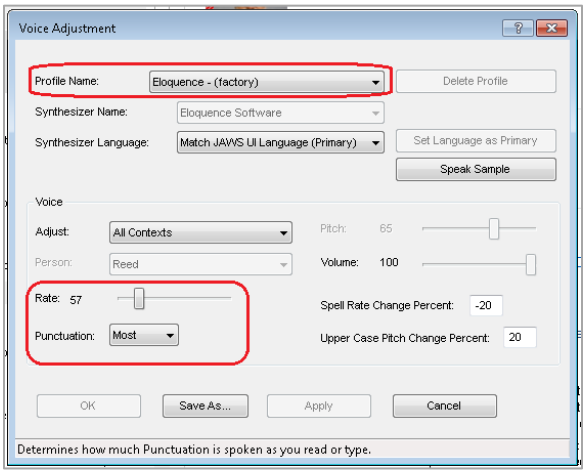
4. Select **Apply**, and then select **OK**.

Optional JAWS Voice Adjustment Settings

Prior to launching the Secure Browser, you can adjust JAWS voice settings for students based on their individual needs. You must set the Voice Profile, Speaking Rate, and Punctuation settings prior to administering assessments. Students should take practice tests using JAWS so they can determine whether these settings need to be adjusted.

1. To adjust JAWS voice settings, open JAWS and go to **Options** > **Voices** > **Voice Adjustment**. The ***Voice Adjustment*** window opens (Figure 8).

Figure 6. JAWS Voice Adjustment



2. To adjust the voice profile, in the *Profile* section, select a voice profile from the **Profile Name** drop-down list. Select **Apply**.

3. To adjust the voice rate, in the *Voice* section, drag the **Rate** slider to the desired rate speed (the lower the rate, the slower the words are read aloud). Select **Apply**.

4. To adjust the punctuation, select the **Punctuation** drop-down list. Select from the following options: **None**, **Some**, **Most**, or **All**. Select **Apply**.

5. When all settings are saved, select **OK**.

Configuring VoiceOver Screen Readers on Student Computers Before Testing Begins

This section includes instructions for the additional VoiceOver configuration steps that Technology Coordinators must follow before students use VoiceOver for online testing. To ensure VoiceOver is properly configured, students should take practice tests using VoiceOver before taking operational tests.

Students cannot use VoiceOver for ELA tests, as it cannot suppress the read-aloud of passages.

Note: If VoiceOver is silent when the test starts, press **VO** + **Fn** + **F2 F2** or **VO** + **Fn** + **2 2**, from the menu that pops up, select the one that has “Student: Test, Page 1”. From then on VoiceOver will let you navigate the test as expected.

Launching VoiceOver Through Accessibility Settings

Prior to testing with VoiceOver, you can configure its settings by launching the software through the Accessibility Settings center on macOS devices.

1. In the dock, select **System Settings** .

2. Select **Accessibility** > **Shortcut** (in the *General* section).

3. Mark the **VoiceOver** checkbox.

4. You can now quickly enable VoiceOver from the Accessibility Shortcuts window by pressing **Command** + **Option** + **F5** and then selecting **VoiceOver**.

Using the VO Key for VoiceOver Commands

Throughout this section, many VoiceOver instructions mention a "**VO**" key. Depending on how VoiceOver is set up on the student's computer, the **VO** key may either be the **Control** + **Option** keys pressed simultaneously or the **Caps Lock** key. For example, if a section in this guide instructs you to press **VO** + **F8**, you would press either **Control** + **Option** + **F8** or **Caps Lock** + **F8**.

You can specify which command should act as the **VO** key from the ***VoiceOver Utility*** window:

1. To turn on VoiceOver, press **Command (⌘) + F5**. Then press **VO** + **F8** to open the ***VoiceOver Utility*** window.

2. In the left panel, select **General**.

3. From the VoiceOver modifier drop-down list, select the keys you want to use as the **VO** key:

   - Control + Option (^⌥)
   - Caps Lock
   - Either Control + Option or Caps Lock

Note: If you set **Caps Lock** as the **VO** key, students who wish to activate Caps Lock and type uppercase characters should quickly press **Caps Lock** twice.

Configuring VoiceOver Screen Reader Navigation Settings

VoiceOver allows students to use keyboard commands to navigate the Student Testing Site. For a better experience when using keyboard commands, you should enable the ***Quick Nav*** feature and other settings in the ***VoiceOver Utility*** window.

Note: CAI does not recommend the use of numpad commands for navigating tests due to compatibility issues. For the best experience, students should use the keyboard navigation mode.

1. To turn on VoiceOver, press **Command** + **F5**. Then press **VO** + **F8** to open the ***VoiceOver Utility*** window.

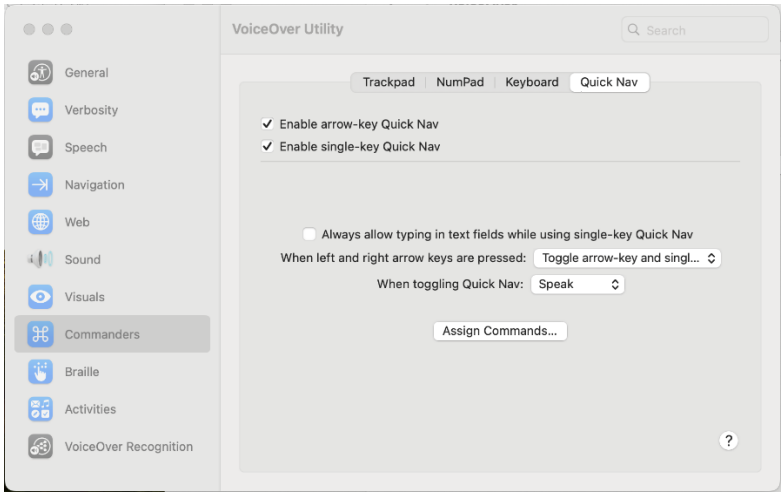
2. In the left panel, select **Commanders**.

3. On the **Quick Nav** tab, make sure the following checkboxes are marked:

   - Enable Quick Nav
   - Allowing toggling of Quick Nav using left and right arrow keys

– Enable single-key webpage navigation when using Quick Nav

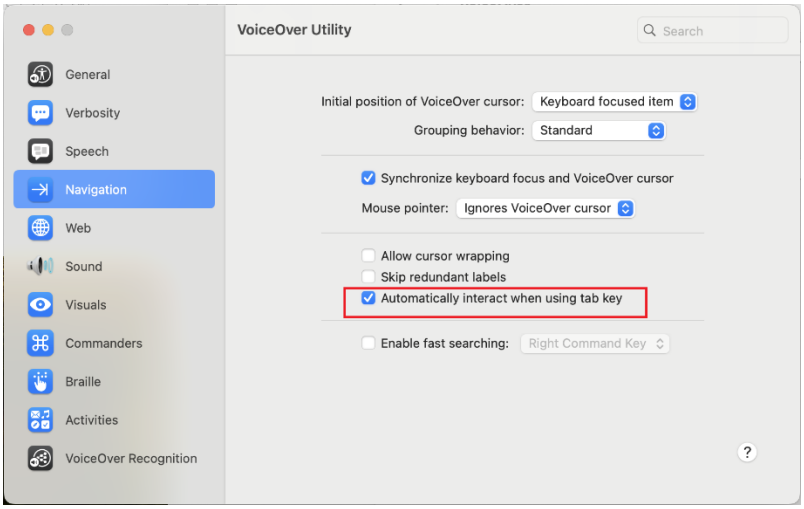
Figure 7. Commanders – Quick Nav Tab



4. To ensure that the tab key functions properly when using VoiceOver in a test, select **Navigation** in the left panel. Then make sure the following checkbox is marked:

   – Automatically interact when using tab key

Figure 8. Navigation Panel



5. To ensure that VoiceOver interacts properly with websites, select **Web** in the left panel and then select the **Web Rotor** tab. Make sure the following checkboxes are marked:

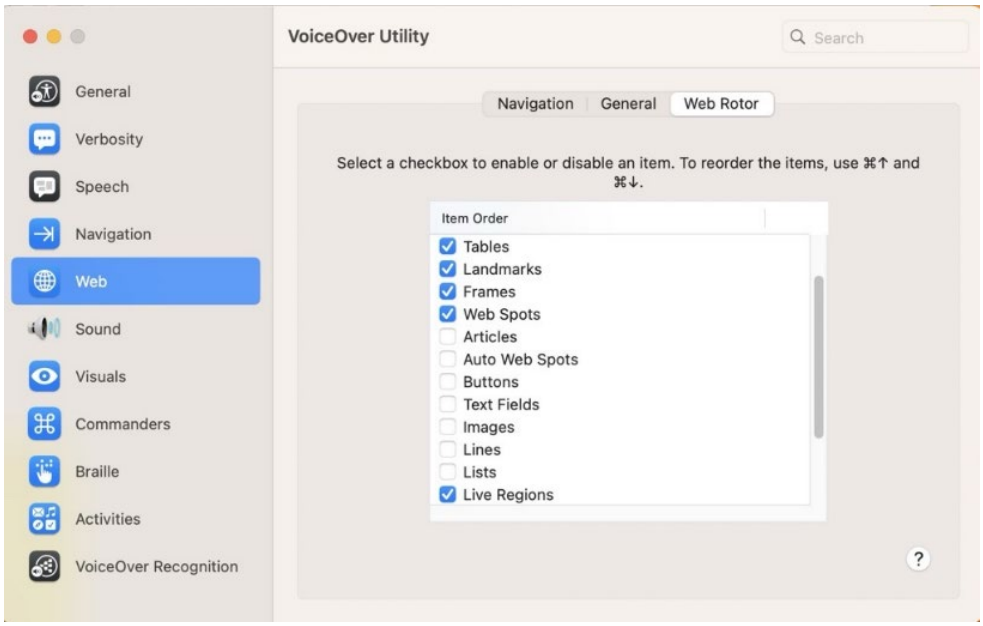
   – Links

   – Headings

   – Form Controls

- Tables
- Landmarks
- Frames
- Web Spots
- Live Regions

Figure 9. Web – Web Rotor Tab



Optional VoiceOver Voice Adjustment Settings

Prior to launching the Secure Browser, you can adjust VoiceOver voice settings based on each student's individual needs. You must set the Voice Profile and Speaking Rate settings prior to administering assessments. Students should take practice tests using VoiceOver so they can determine whether these settings need to be adjusted.

1. To turn on VoiceOver, press **Command** + **F5**. Then press **VO** + **F8** to open the ***VoiceOver Utility*** window.
2. In the left panel, select **Speech**.
3. On the **Voices** tab, select a voice profile from the **Voice** drop-down list.
4. To adjust the voice rate, set the *Rate* field to the desired rate speed (the lower the rate, the slower the words are read aloud).

Administering Tests

This section provides information about how students navigate the Secure Browser with JAWS.

Navigating the Student Testing Site with JAWS

JAWS allows students to use keyboard commands to navigate through the Student Testing Site. The actions associated with each JAWS keyboard command depend on the context in which the student presses the key. In other words, the same key may have different effects depending on whether the student is on the sign-in pages, on the test pages, or within the items and stimuli of the test pages.

Note: The **Tab** key is best used to move among elements such as buttons, text boxes, etc.

Use *Forms Mode* to navigate within an element, such as a listbox which allows multi-selection of options in the list. *Forms Mode* should be activated either automatically when focus is brought to that element using **Tab** or by pressing **Enter** on the element. The arrow keys should then be used. To exit *Forms Mode*, press **Esc or NUM PAD PLUS** and use the arrow keys. This allows a page to be read in detail, including plain text such as test questions.

Table 11 provides an overview of how to use JAWS keyboard commands in each context. For students to use these keyboard commands, *Permissive Mode* must be enabled in TDS.

Caution: If JAWS enters *Forms Mode*, these keyboard commands may not work. To exit *Forms Mode*, press **NUM PAD PLUS** or **Esc**.

Table 10. Overview of JAWS Keyboard Commands in the Student Testing Site

Key	Action
Navigating the Sign-In Pages with JAWS Keyboard Commands	
JAWS modifier key + **F10**) **Space + S (Perkins Braille keyboard)**	Returns the focus to the Secure Browser if the student navigates to the JAWS application window while signing in. Keyboard layouts may vary by device. Please refer to the manual provided by the device manufacturer for more information.
Tab	Moves the focus to the next field or button on the page.
Shift + **Tab**	Moves the focus to the previous field or button on the page.
Down Arrow	Reads the next line on the page.
Up Arrow	Reads the previous line on the page.
Enter	Selects the button that is currently in focus.

Key	Action
Navigating Test Pages with JAWS Keyboard Commands	
R	Navigates to the next landmark region on the test page. A test page has up to three primary landmark regions: • **Banner Region**: The banner contains the test information row. This row displays the current question numbers, test name, student name, test settings button, pause button, and help button. • **Navigation and Test Tools Region**: This region displays the navigation and tool buttons. • **Test Content Region**: This region consists of the *Stimulus* section and the *Question* section: ▪ *Stimulus Section*: Contains the stimulus title, stimulus context menu, and stimulus content. ▪ *Question Section*: Contains a question number, question labels (labels that appear when you mark an item for review, print an item, or enter a note for an item), question context menu, question prompt, and the response area.
H	Jumps to the next heading on the page. In general, the following test components are defined with a heading: • Test name (H1) • Student name (H2) • Passage title (H3) • Question number (H3) On test pages that have multiple questions, students can jump directly from one question to the next. To do so, press **H** and then press the **Down arrow** twice. The question prompt is read aloud.
Shift + **R**	Jumps to the previous region on the page.
Shift + **H**	Jumps to the previous heading on the page.
Tab	Moves to the next component on the page. In general, the following test elements are components: • Navigation and tool buttons • Question number (and associated prompt text) • Context menu • Response options
Shift + **Tab**	Moves to the previous component on the page.
Enter	Selects a button or response option or opens a context menu.

Key	Action
Down Arrow	Moves to the next line on the page.
Up Arrow	Moves to the previous line on the page.
JAWS modifier key + Down Arrow	Reads everything on the page (from the current point of focus).
Ctrl	Stops JAWS from reading.
Opening and Using Context Menus with JAWS Keyboard Commands	
Enter	Pressing **Enter** when JAWS reads "Menu button" will open the context menu. This is the only way to open the context menu when streamlined mode is turned on.
Down Arrow	Moves the focus to the next option in the menu. JAWS will read this option aloud.
Up Arrow	Moves the focus to the previous option in the menu. JAWS will read this option aloud.
Space	Selects the menu option currently in focus.
Esc	Closes the context menu without selecting any options.
Responding to Items with JAWS Keyboard Commands	
Tab	• Students can use the **Tab** key to navigate to the item prompt • Students can press **Tab** again to navigate to the response area. They may need to press **Tab** multiple times depending on the item type and whether any question labels appear for the item. • In the response area for an item, students can press **Tab** to navigate between each answer option, text box, selectable text field, keypad button, or check box, depending on the item type.
Shift + Tab	Navigates to the previous answer option, text box, selectable text field, keypad button, or check box, depending on the item type.
Up and Down Arrow Keys	• For multiple choice and multi-select items, pressing the arrow keys will move between each answer option. • For edit task choice items, pressing the arrow keys will move between each line of text in the item. After users open an edit menu by pressing **Space**, the arrow keys can be used to move between the answer options in the drop-down list.

Key	Action
Space	• For multiple choice and multi-select items, pressing **Space** will select the answer option in focus. • For edit task items, pressing **Space** will open the edit menu in which students type or select a response. • For table match items, pressing **Space** will mark the checkbox in focus.
Enter	• For hot text items, pressing **Enter** will choose the selectable text area in focus as the answer option. • For edit task choice items, pressing **Enter** will select an answer option from the drop-down list in the edit menu. • For equation items, pressing **Enter** will select the keypad button in focus.
Alt + 7	• For equation items, pressing **Alt** + **7** will open a popup menu with special characters. Students can use the arrow keys to move between the special characters in the list and then press **Enter** to insert a special character in the response area.
Miscellaneous JAWS Commands	
Insert + Z	Toggles virtual cursor.
Numpad Plus	Toggles PC cursor.
Numpad Minus	Toggles JAWS cursor.
Insert + Numpad Plus	Routes PC cursor to JAWS cursor.
Insert + Numpad Minus	Routes JAWS cursor to PC cursor.
Insert + Esc	Refreshes screen.

Please note that the keypad of the Desmos calculator tool in the Student Testing Site cannot be navigated entirely with the **Tab** key. However, all buttons within the keypad can be navigated or selected using JAWS or Desmos keyboard commands. For a list of Desmos keyboard commands, refer to https://www.desmos.com/graphingshortcuts.

Navigating the Student Testing Site with VoiceOver

VoiceOver allows students to navigate tests using keyboard commands. Some of these commands refer to the **VO** key. For more information about the **VO** key, refer to Using the VO Key for VoiceOver Commands.

Key	Action
Navigating the Sign-In Pages with VoiceOver Keyboard Commands	
• **VO + F1 (x2) (Standard keyboard)** • **Space + S (Perkins Braille keyboard)**	Returns the focus to the Secure Browser if the student navigates to the VoiceOver application window while signing in. Keyboard layouts may vary by device. Please refer to the manual provided by the device manufacturer for more information.
Tab	Moves the focus to the next field or button on the page.
Shift + **Tab**	Moves the focus to the previous field or button on the page.
VO + **Shift** + **Down Arrow**	Moves focus to interact with web content/elements.
VO + **Shift** + **Up Arrow**	Stops interacting with web content/elements.
VO + **Right Arrow**	Reads the next line/item on the page.
VO + **Left Arrow**	Reads the previous line/item on the page.
Navigating Test Pages with VoiceOver Quick Nav Keyboard Commands	
C	For hot text items, navigates to the next checkbox on the page.
H	Jumps to the next heading on the page. In general, the following test components are defined with a heading: • Test name (H1) • Student name (H2) • Passage title (H3) • Question number (H3) On test pages that have multiple questions, students can jump directly from one question to the next. To do so, press H and then press VO + Right Arrow. The question prompt is read aloud.
Shift + **C**	For hot text items, navigates to previous checkbox on the page.
Shift + **H**	Jumps to the previous heading on the page.
B	Moves to next button on the page.
Shift + B	Moves to previous button on the page.
J	For multiple choice items, navigates to next answer choice.
Shift + **J**	For multiple choice items, navigates to the previous answer choice.
F	For equation items and text response items, navigates to the next text entry field.

Key	Action
	This command does not apply to text entry fields that have a formatting toolbar.
Shift + **F**	For equation items and text response items, navigates to the previous text entry field. This command does not apply to text entry fields that have a formatting toolbar.
Tab	Moves to the next component on the page. In general, the following test elements are components: • Navigation and tool buttons • Question numbers (and associated prompt text) • Context menus • Response options
Shift + **Tab**	Moves to the previous component on the page.
Return	• Selects response option. • Opens a context menu or list item.
VO + **Right Arrow**	Moves to the next line on the page.
VO + **Left Arrow**	Moves to the previous line on the page.
VO + **A**	Reads everything on the page (from the current point of focus).
VO + **B**	Reads everything from the top of page to the current point of focus.
VO + **U**	Opens Rotor used to interact with objects in web area.
Ctrl	Stops VoiceOver from reading.
Opening and Using Context Menus with VoiceOver Keyboard Commands	
Return	Pressing **Return** when VoiceOver reads “Menu button” will open the context menu. This is the one of two ways to open the context menu when streamlined mode is turned on. Menus can also be opened using **VO** + **Space**.
Down Arrow	Moves the focus to the next option in the menu. VoiceOver will read this option aloud.
Up Arrow	Moves the focus to the previous option in the menu. VoiceOver will read this option aloud.
Space	Selects the menu option currently in focus.
Esc	Closes the context menu without selecting any options.
Responding to Items with VoiceOver Keyboard Commands	
Tab	• Students can use the **Tab** key to navigate to the item prompt, which VoiceOver will read aloud. • After VoiceOver reads the prompt aloud, students can press **Tab** again to navigate to the response area. They may need to press **Tab** multiple times

Key	Action
	depending on the item type and whether any question labels appear for the item. • In the response area for an item, students can press **Tab** to navigate between each answer option, text box, selectable text field, keypad button, or checkbox, depending on the item type.
Shift + **Tab**	Navigates to the previous answer option, text box, selectable text field, keypad button, or check box, depending on the item type.
Up and **Down Arrow Keys**	For edit task choice items, pressing the arrow keys moves the focus between each line of text in the item. After users open an edit task menu by pressing **Space**, the arrow keys can be used to move between the answer options in the list.
VO + **Space** or **Return**	• For multiple choice and multi-select items, pressing either command will select the answer option in focus. • For table match items, pressing either command will mark the checkbox in focus. • For hot text items, pressing either command will select the answer option in focus. ▪ Pressing either command will also choose the selectable text area in focus as the answer option. • For edit task choice items, pressing either command will select an answer option from the drop-down list in the edit menu. • For equation items, pressing either command will select the keypad button in focus.
Option + **7**	For equation items, pressing **Option** + **7** will open a pop-up menu with special characters. Students can use the arrow keys to move between the special characters in the list and then press **VO** + **Space** or **Return** to insert a special character in the response area.

Appendix A. Additional Tips

Changing the Mouse Pointer in Windows, MacOS and ChromeOS

If the mouse pointer color or size is changed in TDS via TDS system settings, the pointer reverts to the default when it is at the edge of the screen. If the mouse is set to a custom mouse pointer in the operating system settings, then it reverts to that customization near the edge of the screen

To make changes to the mouse pointer, follow the instructions provided by the operating system to change the mouse pointer in the system settings.