

2022

Assistive Technology Configuration Instructions

In-School Digital AP[®] Exams

The instructions in this document should be followed by students taking in-school digital AP English Literature and Composition and/or AP World History: Modern Exams using assistive technology. These configuration instructions should be followed before answering exam app preview questions and before exam day.

Any approved assistive technology a student uses when they're online should still work during the exam. If a student uses assistive technologies (AT), such as screen readers (JAWS, NVDA, VoiceOver, ChromeVox, ZoomText Fusion, etc.) to interact with a standard web browser, the same commands can be used to navigate through content in the digital exam. The exception to this would be if a student uses a web-based assistive technology or a browser extension.

Students using assistive technology should open/start their assistive technology device or software before they open the digital testing application. On exam day, students should adjust any necessary settings before they begin sign-in for their digital exam. On exam day, after checking in to the testing app (and before entering the room code), students will be able to access configuration instructions through the **Help** section and complete any configuration steps if needed before beginning the exam.

Exceptions are noted when configuration is not required ahead of the exam.

Important: The best way to test digital exam compatibility with assistive technologies is for a student to answer exam app preview questions on the device they plan to use for their exam(s) with the assistive technology enabled and set to the necessary configurations.

The accommodations listed in this table will be delivered for the 2022 digital AP Exams and students approved for these accommodations can use assistive technology (AT).

ACCOMMODATIONS WITH APPROVED AT DEVICES

Approved Accommodation	Examples of Approved AT Devices
Human Reader	Screen Reader or Text-to-Speech
Writer/Scribe to Record Responses	Speech-to-Text, Braille Display
Pre-recorded Audio (MP3 via Streaming)	Screen Reader or Text-to-Speech
Braille with Raised Line Drawings, Contracted	Screen Reader, Braille Display, etc.
Raised Line Drawings	Screen Reader
Braille Writer	Screen Reader, Braille Display, etc.
Assistive Technology	Screen Reader, Speech-to-Text, Text-to-Speech, Braille Display, other approved AT devices
Assistive Technology–Compatible Test Form	Screen Reader

If there are questions about the accommodations a student is approved for, the SSD coordinator can look up the student's accommodations in SSD Online or [contact the College Board SSD Office](#).

Configuring and Using Assistive Technology

If settings need to be configured for the assistive technology a student plans to use, the student needs to complete configuration steps **before** they open the digital testing application. Assistive technology needs to be open and properly configured so a student can complete the check-in process for the digital exam on exam day. On exam day, once a student enters the room code, they won't be able to adjust settings because the digital testing app locks their device.

Configuration steps should be taken **each time** a student uses the digital testing app, whether answering exam app preview questions, or before checking in to the exam on exam day.

In some cases, your school's IT staff may need to complete the configuration steps on the student's testing device, for instance, if the device is managed and settings cannot be adjusted by the student.

Important: iPads shouldn't use iPad OS versions 15.1-15.3. On these versions of iPad OS, the **tab** key on external keyboards may not function for any application, which will prevent students using assistive technology from using the tab key to change their focus area.

The information below provides instructions about how to use common types of assistive technology for a digital exam.

Screen Readers and Text-to-Speech

Screen readers are most often external software that students use on their device to have all onscreen content read aloud. Screen readers are often used by students who have visual impairments.

Text-to-speech (TTS) technology is the screen reader functionality available through a device's operating system. TTS technology reads the text on a screen, and provides image descriptions depending on available settings or preferences.

Screen Readers

This section includes general information applicable to external screen-reader software such as JAWS and NVDA.

During digital app preview and during the exam, a student will use the typical key commands that they normally use to navigate a webpage with their screen reader. A student can navigate with these regions/landmarks:

- Exam Player Controls
 - ♦ Test Timer
 - ♦ Test Tools
- Exam Stimulus/Passage
 - ♦ Footnotes
 - ♦ Long Description
- Exam Question
 - ♦ Question
 - ♦ Answer Options
 - ♦ Long Description
- Navigation

In general, the following test components are defined with a heading:

- Test Name
- Passage Title/Source Documents, etc.

Configure the verbosity, punctuation, text processing, and other settings for each digital exam subject (AP English Literature and Composition and/or AP World History: Modern) as needed.

Configuration needs to be done before opening the digital testing app to answer exam app preview questions or for check-in on exam day.

On exam day, student won't be able to adjust these settings once they have started check-in.

[Link to Referenced Text](#)

This information applies to the multiple-choice section for the **AP English Literature and Composition Exam** only. On questions that refer to a specific section of the stimulus text, the >> symbol will display after the reference. If a student using a screen reader clicks on this symbol, the referenced text will be read aloud. If they scroll past the referenced text and click on this symbol, the passage will scroll back so the referenced text is at the top of the screen.

[Text-to-Speech](#)

Text-to-Speech (TTS) tools read aloud text that appears on the screen. Below are configuration instructions to be taken before opening the digital testing app for specific TTS tools for Windows, Mac, iPad, and Chromebooks.

[Windows Narrator](#)

Narrator reads aloud the text on screen.

To start Narrator:

1. Press the **Windows logo key + Ctrl + Enter** together to start Narrator. Press these keys again to stop Narrator.
2. Press the **Windows logo key + Ctrl + N** together to open Narrator settings, and then turn on the toggle under **Use Narrator**.

To use your mouse cursor to read text:

- Go to the Narrator settings titled **Use Narrator Cursor**.
- Activate the following settings:
 - ♦ Show the Narrator cursor
 - ♦ Move my text cursor with the Narrator cursor as Narrator reads text
 - ♦ Sync the Narrator cursor and system focus
- Activate any other settings as per the student's preference.

To learn more about Narrator, visit the [Complete Guide to Narrator 11 or the Complete Guide to Narrator 10](#).

[Mac OS](#)

Mac OS has a speech option that will speak the text when a student presses a key or set of keys, or uses their mouse or cursor.

To use defined key commands:

For all supported Mac operating systems:

1. Go to the Apple menu and select **System Preferences**.

2. Select **Accessibility**.

Then continue with the remaining steps below depending on the specific operating system being used:

Mac OS 10 (High Sierra, Mojave, and Catalina)	Mac OS 11 (Big Sur) and Mac OS 12 (Monterey)
3. From the Accessibility screen, select Speech from the left menu. 4. Then check the option Speak selected text when the key is pressed . 5. To change the key commands, click the Set or Change Key option, and follow the instructions for selecting the modifier key and other key of your choice. 6. When the key commands are set, click OK .	3. From the Accessibility screen, select Spoken Content from the left menu. 4. Then check the option Speak Selection . 5. To change the key commands and preferences, select Options . 6. When the key commands are set, click OK .

After completing the above steps, each time a student types the established key combination, any text the student selects will be read aloud. To stop the speech, type the same key combination again.

To use the mouse cursor to read text:

For all supported Mac operating systems:

1. Go to the Apple menu and select **System Preferences**.
2. Select **Accessibility**.

Then continue with the remaining steps below depending on the specific operating system being used:

Mac OS 10 (High Sierra and Mojave)	Mac OS 10 (Catalina)	Mac OS 11 (Big Sur) and Mac OS 12 (Monterey)
3. From the Accessibility screen, select Zoom from the left menu. 4. Check the option Speak items under the pointer . 5. Choose whether to identify items under the pointer all the time (select Always) or only when they use zoom (select Only when Zoomed).	3. From the Accessibility screen, select Speech from the left menu. 4. Check the option Speak items under the pointer . 5. Choose whether to identify items under the pointer all the time (select Always) or only when they use zoom (select Only when Zoomed).	3. From the Accessibility screen, select Spoken Content from the left menu. 4. Check the option Speak items under the pointer . 5. Select Options to customize the speech and verbosity settings.

To learn more about how to have your Mac speak text that's on screen, [review the user guide for your Mac OS](#).

iPad (iOS)

The iPad can speak selected text or the entire screen.

For all supported iOS devices:

1. Tap on the **Settings** icon and select **Accessibility**.
2. From the **Accessibility** screen, select **Spoken Content**.

3. Then select **Speak Screen**.
4. Enable (i.e., toggle on) **Speech Controller** and/or **Highlight Content**, as preferred.

Keyboards need to be used with iPads.

Go to Settings  > Accessibility > Keyboards, tap **Full Keyboard Access**, then turn on **Full Keyboard Access**.

ChromeVox

Turn ChromeVox on or off from any page by pressing **Ctrl + Alt + Z**.

Students can navigate through the exam using their keyboard, with the [Chrome keyboard commands](#) and the [exam player keyboard shortcuts](#).

Important: Depending on their keyboard, students can press the **Search** key or the **Launcher** key for some shortcuts. Both keys work the same way.

To learn more about how to use the ChromeVox built-in screen reader, visit the [Chromebook Help Center](#).

Voice Recognition (Speech-to-Text) Technology

Voice recognition (speech-to-text, or STT) technology transcribes a student's spoken words into text for item responses in the digital AP Exam. Students approved for this technology or for a writer/scribe may use STT technology for digital exams.

A student might need to configure their STT technology for digital testing.

Students using STT technology must disable word prediction.

Take the following configuration steps before opening the digital testing app.

Dragon Naturally Speaking

Follow these steps to configure **Dragon Naturally Speaking 15+** (Home or Professional Individual for Windows):

1. Use the **Tools** drop-down list on the Dragon Bar to open the **Options** dialog box.
2. Go to the **Data** tab, and ensure that the following are unchecked:
 - a. Uncheck **Don't back up user profile**.
 - b. Uncheck **Run Accuracy Tuning at the time schedule by your administrator**.
 - c. In the **User Experience Collection**, uncheck **Help us improve Dragon**.

Custom Commands for Dragon

For information about custom commands and how to use them with the digital exam, please [contact the College Board SSD office](#).

Windows Speech Recognition

Before exam day, the Windows built-in Speech Recognition application must be configured on the device the student will use for the exam. The application can be set up through the **Windows Control Panel**. During configuration, **Speech Recognition Voice Training** must be completed by the student for optimal performance.

Students must also adjust these settings:

1. Go to **Start**, then select **Settings**, then **Privacy**, then **Diagnostics & Feedback**.
2. In the **Diagnostic Data** section, select the **Basic** radio button.
3. Then select the **Speech** tab.
4. Set the **Online Speech Recognition** toggle to **Off**.

MacOS and iOS Enhanced Dictation/Voice Control

Students testing with a Mac computer or an iPad need to make sure their device is opted out of Apple's Diagnostic and Usage program and Improve Siri and Dictation.

- To opt out of the Diagnostic and Usage Program: Disable Analytics through the Mac computer's security and privacy settings.
- To opt out of Improve Siri and Dictation: Go to **Settings > Privacy > Analytics & Improvements** and tap to **turn off Improve Siri and Dictation**.

Refreshable Braille Displays

Refreshable Braille Displays (RBDs) are used to read text-only content on digital AP Exams. Alternative text descriptions are embedded in the exams for all graphics. RBDs must be properly set up before they can be used by students. For information about installing and setting up RBDs, refer to the product's provided instructions and manuals.

Refreshable braille is not recommended for AP subjects that require tactile graphics. If a student will need tactile graphics for their digital AP World History: Modern Exam and this hasn't already been requested, the student should talk to their AP coordinator and SSD coordinator as soon as possible so they can help the student determine available options.

Screen Magnification

It's recommended that students use the zoom functionality available through their device. No configuration is necessary to use a device's zoom functionality.

Keyboard Shortcuts

Students testing with certain types of assistive technology may find it helpful to use keyboard shortcuts to help navigate within the digital exam. The following keyboard shortcuts can be used in the digital testing application. No separate configuration is needed to use these commands.

KEYBOARD SHORTCUTS FOR MULTIPLE-CHOICE QUESTIONS

Action	PC	Chromebook	Mac
Back	Control+Alt+B	Control+Alt+B	Command+Ctrl+B
Next	Control+Alt+X	Control+Alt+X	Command+Ctrl+X
Help	Control+Alt+H	Control+Alt+H	Command+Ctrl+H
Directions	Control+Alt+Shift+D	Control+Alt+Shift+D	Command+Ctrl+Shift+D
Hide/Show Timer	Control+Alt+T	Control+Alt+T	Command+Option+T
Close 5 Min Message	Control+Alt+T	Control+Alt+T	Command+Option+T
Pause Timer	Control+Alt+P	Control+Alt+P	Command+Option+P
Annotate	Control+Alt+A	Control+Alt+A	Command+Option+A
Reference	Control+Alt+R	Control+Alt+R	Command+Option+R
Zoom IN	Control+Plus (+)	Control+Plus (+)	Command+Plus (+)
Zoom OUT	Control+Minus (-)	Control+Minus (-)	Command+Minus (-)
Select/Deselect Option A	Control+Shift+1	Control+Shift+1	Command+Ctrl+1
Select/Deselect Option B	Control+Shift+2	Control+Shift+2	Command+Ctrl+2
Select/Deselect Option C	Control+Shift+3	Control+Shift+3	Command+Ctrl+3
Select/Deselect Option D	Control+Shift+4	Control+Shift+4	Command+Ctrl+4
Select/Deselect Option E	Control+Shift+5	Control+Shift+5	Command+Ctrl+5
Expand/Collapse Passage	Control+Shift+L	Control+Shift+[Command+Ctrl+L
Expand/Collapse Question	Control+Shift+R	Control+Shift+]	Command+Ctrl+R

Note: For multi-select options, use the space bar to make your selection.

KEYBOARD SHORTCUTS FOR FREE-RESPONSE QUESTIONS

Action	PC	Chromebook	Mac
Bold	Control+B	Control+B	Command+B
Italics	Control+I	Control+I	Command+I
Underline	Control+U	Control+U	Command+U
Superscript	Control+Shift+Plus (+)	Control+Shift+Plus (+)	Command+Ctrl+Plus (+)
Subscript	Control+Shift+Minus (-)	Control+Shift+Minus (-)	Command+Ctrl+Minus (-)
Undo	Control+Z	Control+Z	Command+Z
Redo	Control+Y	Control+Y	Command+Shift+Z
Cut	Control+X	Control+X	Command+X
Copy	Control+C	Control+C	Command+C
Paste	Control+V	Control+V	Command+V
Insert Symbols	Control+Shift+/ 	Control+Shift+/ 	Command+Ctrl+/

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