Voluntary Product Accessibility Template (VPAT)

DATE: JUNE 26, 2017
PRODUCT NAME: Biopac Student Lab
PRODUCT VERSION NUMBER: 4.1.x
VENDOR COMPANY NAME: BIOPAC SYSTEMS, INC
VENDOR CONTACT NAME: SUPPORT@BIOPAC.COM
VENDOR CONTACT TELEPHONE: 805-685-0066

NOTE: There are two parts to Biopac Student Lab; Lessons and PRO. The lessons portion of the application restricts the user to predefined lessons. While PRO allows the user greater flexibility and many more options that increase accessibility.

Biopac Student Lab, BSL, is a graphic application that displays physiological signals.

Summary Table
Voluntary Product Accessibility Template

Criteria	Level of Support & Supporting Features	Remarks and explanations
Section 1194.21 Software Applications and Operating Systems		See corresponding section
Section 1194.22 Web-based Internet Information and Applications	Not applicable	
Section 1194.23 Telecommunications Products	Not applicable	
Section 1194.24 Video and Multi-media Products	Not applicable	
Section 1194.25 Self-Contained, Closed Products	Not applicable	
Section 1194.26 Desktop and Portable Computers	Not applicable	
Section 1194.31 Functional Performance Criteria		See corresponding section
Section 1194.41 Information, Documentation and Support		See corresponding section

**Section 1194.21 Software Applications and Operating Systems - Detail
Voluntary Product Accessibility Template**

Criteria	**Level of Support & Supporting Features**	**Remarks and explanations**
(a) When software is designed to run on a system that has a keyboard, product functions shall be executable from a keyboard where the function itself or the result of performing a function can be discerned textually.	SUPPORTS WITH EXCEPTIONS	Lessons: Lessons are scripted to guide students through each experiment. Most tasks are performed with a mouse or from the keyboard. Lessons are designed to be performed in groups of three to five students including a subject and director. Most of limitations of the Lesson would not have an adverse affect on a group of students. *PRO*: In addition to the main menu, the graph includes toolbars, pop-up menus, icons and buttons. Some of these areas can be accessed from the main menu bar and the keyboard; others cannot.
(b) Applications shall not disrupt or disable activated features of other products that are identified as accessibility features, where those features are developed and documented according to industry standards. Applications also shall not disrupt or disable activated features of any operating system that are identified as accessibility features where the application programming interface for those accessibility features has been documented by the manufacturer of the operating system and is available to the product developer.	SUPPORTS	Biopac Student Lab does not disable or interfere with accessibility features of other applications or the operating system. Lessons: Recording an experiment is controlled by a script, which requires the user to check menus, press buttons or enter text from the keyboard.
(c) A well-defined on-screen indication of the current focus shall be provided that moves among interactive interface elements as the input focus changes. The focus shall be programmatically exposed so that Assistive Technology can track	SUPPORTS WITH EXCEPTIONS	Lessons: users are textually guided through the experiments. The text is in a lesson specific journal. *PRO* uses the standard focus ring provided by

Section 1194.21 Software Applications and Operating Systems - Detail
Voluntary Product Accessibility Template

Criteria	Level of Support & Supporting Features	Remarks and explanations
focus and focus changes.		QT. This is a blue outline surrounding active text fields. - Focus indicators should be exposed for assistive technologies by Qt. - *PRO* and Lessons: No focus indicator is provided for keyboard navigation in a graph, event hotkeys during acquisition, or menu shortcuts.

(d) Sufficient information about a user interface element including the identity, operation and state of the element shall be available to Assistive Technology. When an image represents a program element, the information conveyed by the image must also be available in text.	SUPPORTS WITH EXCEPTIONS	Lessons: Buttons are clearly labeled with text and textual information is provided in the journal.
		
		PRO: Several elements indicate the status or state of an operation, but not all. Here a few examples:
		
		   o Text and symbols used for the Start/Stop button (Recording data).
		   o Tooltips are provided for buttons and menu items.
		   o Analysis operations and transformation displays a progress bar.
		Tooltips may be missing for a few items.

(e) When bitmap images are used to identify controls, status indicators, or other programmatic elements, the meaning assigned to those images shall be consistent throughout an application's performance.	SUPPORTS	Lessons: Bitmap images are consistent throughout the application. *PRO*: Bitmap images are consistent throughout the application. Tooltips are provided for most bitmap images.
(f) Textual information shall be provided through operating system functions for displaying text. The minimum information that shall be made available is text content, text input caret location, and text attributes.	SUPPORTS	Lessons: Buttons are labeled and text in the journal provides instructions. *PRO*: Tooltips are provided for most button and menu options. Some buttons include both

Section 1194.21 Software Applications and Operating Systems - Detail
Voluntary Product Accessibility Template

Criteria	Level of Support & Supporting Features	Remarks and explanations
		text and a symbol; for example, the Start Button that toggles the word Start to Stop and includes a corresponding symbol.
(g) Applications shall not override user selected contrast and color selections and other individual display attributes.	SUPPORTS WITH EXCEPTIONS	Lessons: the graphical display of data is unique to Biopac Student Lab and only part of the interface is controlled by operating system settings. - During recording of data, both the graph and journal are the standard colors controlled by the lessons scripts. - Analyzing Data: Only the graph is controlled by the lessons scripts. *PRO*: The user's contrast and color selections are used for the many elements within the application. While recording data the graph colors are controlled by the application.
(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.	NOT APPLICABLE	Animation is not used in this application.
(j) When a product permits a user to adjust color and contrast settings, a variety of color selections capable of producing a range of contrast levels shall be provided.	SUPPORTS WITH EXCEPTIONS	Lessons: Colors cannot be adjusted in Lessons. *PRO*: The operating systems color wells are used for color areas, except for text in the journal. The user can select from one of 15 colors for the journal text; these colors range from light to dark.
(k) Software shall not use flashing or blinking text, objects, or other elements having a flash or blink frequency greater than 2 Hz and lower than 55 Hz.	SUPPORTS	Lessons: There are no flashing or blinking text in Lessons. *PRO*: A cursor placed in the graph may flash, but not within the frequency range of 2 to 55

Section 1194.21 Software Applications and Operating Systems - Detail
Voluntary Product Accessibility Template

Criteria	Level of Support & Supporting Features	Remarks and explanations
		Hz. It is possible that the data will flicker while being recorded. If flickering occurs, the corresponding window can be minimized or hidden behind another window. The actual rate of these flickers is dependent on individual computer attributes.
(l) When electronic forms are used, the form shall allow people using Assistive Technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.	SUPPORTS	Only a single electronic form is used to register the software. It is completed by entering elements via the keyboard.

NOT APPLICABLE
Section 1194.22 Web-based Intranet and Internet information and Applications - Detail
Voluntary Product Accessibility Template

Criteria	Level of Support & Supporting Features	Remarks and explanations
(a) A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content).	Not Applicable	
(b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.	Not Applicable	
(c) Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup.	Not Applicable	
(d) Documents shall be organized so they are readable without requiring an associated style sheet.	Not Applicable	
(e) Redundant text links shall be provided for each active region of a server-side image map.	Not Applicable	

NOT APPLICABLE
Section 1194.22 Web-based Intranet and Internet information and Applications - Detail
Voluntary Product Accessibility Template

Criteria	Level of Support & Supporting Features	Remarks and explanations
(f) Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.	Not Applicable	
(g) Row and column headers shall be identified for data tables.	Not Applicable	
(h) Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.	Not Applicable	
(i) Frames shall be titled with text that facilitates frame identification and navigation	Not Applicable	
(j) Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.	Not Applicable	
(k) A text-only page, with equivalent information or functionality, shall be provided to make a web site comply with the provisions of this part, when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes.	Not Applicable	
(l) When pages utilize scripting languages to display content, or to create interface elements, the information provided by the script shall be identified with functional text that can be read by Assistive Technology.	Not Applicable	
(m) When a web page requires that an applet, plug-in or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with 1194.21(a) through (l).	Not Applicable	
(n) When electronic forms are designed to be completed on-line, the form shall allow people using Assistive Technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.	Not Applicable	
(o) A method shall be provided that permits users to skip repetitive navigation links.	Not Applicable	
(p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	Not Applicable	

Not Applicable
Section 1194.23 Telecommunications Products - Detail
Voluntary Product Accessibility Template

Criteria	Level of Support & Supporting Features	Remarks and explanations
(a) Telecommunications products or systems which provide a function allowing voice communication and which do not themselves provide a TTY	Not applicable	

Not Applicable
Section 1194.23 Telecommunications Products - Detail
Voluntary Product Accessibility Template

Criteria	Level of Support & Supporting Features	Remarks and explanations
functionality shall provide a standard non-acoustic connection point for TTYs. Microphones shall be capable of being turned on and off to allow the user to intermix speech with TTY use.		
(b) Telecommunications products which include voice communication functionality shall support all commonly used cross-manufacturer non-proprietary standard TTY signal protocols.	Not applicable	
(c) Voice mail, auto-attendant, and interactive voice response telecommunications systems shall be usable by TTY users with their TTYs.	Not applicable	
(d) Voice mail, messaging, auto-attendant, and interactive voice response telecommunications systems that require a response from a user within a time interval, shall give an alert when the time interval is about to run out, and shall provide sufficient time for the user to indicate more time is required.	Not applicable	
(e) Where provided, caller identification and similar telecommunications functions shall also be available for users of TTYs, and for users who cannot see displays.	Not applicable	
(f) For transmitted voice signals, telecommunications products shall provide a gain adjustable up to a minimum of 20 dB. For incremental volume control, at least one intermediate step of 12 dB of gain shall be provided.	Not applicable	
(g) If the telecommunications product allows a user to adjust the receive volume, a function shall be provided to automatically reset the volume to the default level after every use.	Not applicable	
(h) Where a telecommunications product delivers output by an audio transducer which is normally held up to the ear, a means for effective magnetic wireless coupling to hearing technologies shall be provided.	Not applicable	
(i) Interference to hearing technologies (including hearing aids, cochlear implants, and assistive listening devices) shall be reduced to the lowest possible level that allows a user of hearing technologies to utilize the telecommunications product.	Not applicable	
(j) Products that transmit or conduct information or communication, shall pass through cross-manufacturer, non-proprietary, industry-standard codes, translation protocols, formats or other information necessary to provide the information or communication in a usable format. Technologies which use encoding, signal compression, format transformation, or similar techniques shall not remove information needed for access or shall restore it upon delivery.	Not applicable	
(k)(1) Products which have mechanically operated controls or keys shall comply with the following: Controls and Keys shall be tactilely discernible without activating the controls or keys.	Not applicable	
(k)(2) Products which have mechanically operated controls or keys shall comply with the following: Controls and Keys shall be operable with one	Not applicable	

Not Applicable
Section 1194.23 Telecommunications Products - Detail
Voluntary Product Accessibility Template

Criteria	Level of Support & Supporting Features	Remarks and explanations
hand and shall not require tight grasping, pinching, twisting of the wrist. The force required to activate controls and keys shall be 5 lbs. (22.2N) maximum.		
(k)(3) Products which have mechanically operated controls or keys shall comply with the following: If key repeat is supported, the delay before repeat shall be adjustable to at least 2 seconds. Key repeat rate shall be adjustable to 2 seconds per character.	Not applicable	
(k)(4) Products which have mechanically operated controls or keys shall comply with the following: The status of all locking or toggle controls or keys shall be visually discernible, and discernible either through touch or sound.	Not applicable	

Not Applicable
Section 1194.24 Video and Multi-media Products – Detail
Voluntary Product Accessibility Template

Criteria	Level of Support & Supporting Features	Remarks and explanations
a) All analog television displays 13 inches and larger, and computer equipment that includes analog television receiver or display circuitry, shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals. As soon as practicable, but not later than July 1, 2002, widescreen digital television (DTV) displays measuring at least 7.8 inches vertically, DTV sets with conventional displays measuring at least 13 inches vertically, and stand-alone DTV tuners, whether or not they are marketed with display screens, and computer equipment that includes DTV receiver or display circuitry, shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals.	Not applicable	
(b) Television tuners, including tuner cards for use in computers, shall be equipped with secondary audio program playback circuitry.	Not applicable	
(c) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain speech or other audio information necessary for the comprehension of the content, shall be open or closed captioned.	Not applicable	
(d) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain visual information necessary for the comprehension of the content, shall be audio described.	Not applicable	
(e) Display or presentation of alternate text presentation or audio descriptions shall be user-selectable unless permanent.	Not applicable	

Not Applicable
Section 1194.25 Self-Contained, Closed Products – Detail
Voluntary Product Accessibility Template

Criteria	Level of Support & Supporting Features	Remarks and explanations
(a) Self contained products shall be usable by people with disabilities without requiring an end-user to attach Assistive Technology to the product. Personal headsets for private listening are not Assistive Technology.	Not applicable	
(b) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	Not applicable	
(c) Where a product utilizes touchscreens or contact-sensitive controls, an input method shall be provided that complies with 1194.23 (k) (1) through (4).	Not applicable	
(d) When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, shall also be provided.	Not applicable	
(e) When products provide auditory output, the audio signal shall be provided at a standard signal level through an industry standard connector that will allow for private listening. The product must provide the ability to interrupt, pause, and restart the audio at anytime.	Not applicable	
(f) When products deliver voice output in a public area, incremental volume control shall be provided with output amplification up to a level of at least 65 dB. Where the ambient noise level of the environment is above 45 dB, a volume gain of at least 20 dB above the ambient level shall be user selectable. A function shall be provided to automatically reset the volume to the default level after every use.	Not applicable	
(g) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.	Not applicable	
(h) When a product permits a user to adjust color and contrast settings, a range of color selections capable of producing a variety of contrast levels shall be provided.	Not applicable	
(i) Products shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.	Not applicable	
(j) (1) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: The position of any operable control shall be determined with respect to a vertical plane, which is 48 inches in length, centered on the operable control, and at the maximum protrusion of the product within the 48 inch length on products which are freestanding, non-portable, and intended to be used in one location and which have operable controls.	Not applicable	
(j)(2) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Where any operable control is 10 inches or less behind the reference plane, the height shall be 54 inches maximum and 15 inches minimum above the floor.	Not applicable	

Not Applicable

Section 1194.24 Video and Multi-media Products – Detail
Voluntary Product Accessibility Template

Criteria	Level of Support & Supporting Features	Remarks and explanations
(j)(3) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Where any operable control is more than 10 inches and not more than 24 inches behind the reference plane, the height shall be 46 inches maximum and 15 inches minimum above the floor.	Not applicable	
(j)(4) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Operable controls shall not be more than 24 inches behind the reference plane.	Not applicable	

Not Applicable

Section 1194.26 Desktop and Portable Computers

Criteria	Level of Support & Supporting Features	Remarks and explanations
(a) All mechanically operated controls and keys shall comply with 1194.23 (k) (1) through (4).	Not applicable	
(b) If a product utilizes touchscreens or touch-operated controls, an input method shall be provided that complies with 1194.23 (k) (1) through (4).	Not applicable	
(c) When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, shall also be provided.	Not applicable	
(d) Where provided, at least one of each type of expansion slots, ports and connectors shall comply with publicly available industry standards	Not applicable	

Section 1194.31 Functional Performance Criteria – Detail
Voluntary Product Accessibility Template

Criteria	Level of Support & Supporting Features	Remarks and explanations
(a) At least one mode of operation and information retrieval that does not require user vision shall be provided, or support for Assistive Technology used by people who are blind or visually impaired shall be provided.	NOT APPLICABLE - FUNDAMENTAL ALTERATION EXCEPTION APPLIES	Biopac Student Lab is a graphic application that displays a physiological signal. These signals are not suitable for a non-visual display.

Section 1194.31 Functional Performance Criteria – Detail
Voluntary Product Accessibility Template

Criteria	Level of Support & Supporting Features	Remarks and explanations

(b) At least one mode of operation and information retrieval that does not require visual acuity greater than 20/70 shall be provided in audio and enlarged print output working together or independently, or support for Assistive Technology used by people who are visually impaired shall be provided.	SUPPORTS THROUGH EQUIVALENT FACILITATION	Biopac Student Lab will not interfere with Assistive Technology.
		
		A large monitor or projecting the image would facilitate displaying the data.
		
		Lessons: Each experiment is displayed full screen and it includes the graph and journal. A larger monitor would increase the ease of viewing the output.
		
		  PRO: In addition to using a large screen, these tools will facilitate displaying data for the visually impaired.
		  o Signal data can be magnified with the zoom tool.
		  o Some channels may be hidden; the remaining channels will fill the space.
		  o Channels can be collapsed and expanded as needed.
		  o Journals can be closed or floated.
		  o Window size can be maximized.

(c) At least one mode of operation and information retrieval that does not require user hearing shall be provided, or support for Assistive Technology used by people who are deaf or hard of hearing shall be provided	SUPPORTS THROUGH EQUIVALENT FACILITATION	LESSONS: A few experiments use sound and hearing. However, these experiments are performed in a group. This would only be a problem if the entire group were hearing-impaired. *PRO*: The ability to hear is not required to use Biopac Student Lab *PRO*.

Section 1194.31 Functional Performance Criteria – Detail
Voluntary Product Accessibility Template

Criteria	Level of Support & Supporting Features	Remarks and explanations

(d) Where audio information is important for the use of a product, at least one mode of operation and information retrieval shall be provided in an enhanced auditory fashion, or support for assistive hearing devices shall be provided.	SUPPORTS WITH EXCEPTIONS	Lessons
		
		- BSL Lessons: Audio information is used in four lessons, 1, 2, 11 and 17.
		   o Lessons 1, 2 and 17 supplemental information is provided as sound.
		   o Lesson 11 the user responds to an audible click. The click is also displayed as text. Lesson 11A is variation of Lesson 11, substituting a light flash in place of sound.
		   o In a few lessons, a sound is used only in the calibration step. Most of these lessons provide textual information in the journal.
		   o These tasks are performed by the subject. In a few lessons, a hearing impaired student should not be the subject.
		
		PRO: There are no exceptions in PRO.

(e) At least one mode of operation and information retrieval that does not require user speech shall be provided, or support for Assistive Technology used by people with disabilities shall be provided.	NOT APPLICABLE	
(f) At least one mode of operation and information retrieval that does not require fine motor control or simultaneous actions and that is operable with limited reach and strength shall be provided.	SUPPORTS WHEN COMBINED WITH COMPATIBLE AT	Biopac Student Lab requires the use of a mouse and keyboard, which are compatible with Accessibility tools.

Section 1194.41 Information, Documentation and Support – Detail
Voluntary Product Accessibility Template

Criteria	Level of Support & Supporting Features	Remarks and explanations
(a) Product support documentation provided to end-users shall be made available in alternate formats upon request, at no additional charge	SUPPORTS WHEN COMBINED WITH COMPATIBLE AT	Support documentation is available as text in these forms: - Manuals electronically - Manuals Hardcopy available for purchase - Screencasts are available for some features and operations.
(b) End-users shall have access to a description of the accessibility and compatibility features of products in alternate formats or alternate methods upon request, at no additional charge.	SUPPORT WHEN COMBINED WITH COMPATIBLE AT	This document is available to end users.
(c) Support services for products shall accommodate the communication needs of end-users with disabilities.	SUPPORTS	Technical support is available by email or phone.

20170626