

VPAT™

Voluntary Product Accessibility Template®

Version 1.3

The purpose of the **Voluntary Product Accessibility Template**, or **VPAT™**, is to assist Federal contracting officials and other buyers in making preliminary assessments regarding the availability of commercial “Electronic and Information Technology” products and services with features that support accessibility. It is assumed and recommended that offerers will provide additional contact information to facilitate more detailed inquiries.

The first table of the Template provides a summary view of the Section 508 Standards. The subsequent tables provide more detailed views of each subsection. There are three columns in each table. Column one of the Summary Table describes the subsections of subparts B and C of the Standards. The second column describes the supporting features of the product or refers you to the corresponding detailed table, e.g., “equivalent facilitation.” The third column contains any additional remarks and explanations regarding the product. In the subsequent tables, the first column contains the lettered paragraphs of the subsections. The second column describes the supporting features of the product with regard to that paragraph. The third column contains any additional remarks and explanations regarding the product.

Date: Nov 11, 2016

Name of Product: MyOpenMath

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Summary Table

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Section 1194.21 Software Applications and Operating Systems – Detail

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Criteria	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.	Yes, all functions are accessible via keyboard. Students have the option for basic keyboard entry of answers or graphical palette. Text-based alternatives are available for graph entry.	Some user questions may use features such as embedding external applets which may require graphical interaction.

<p>(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.</p>	<p>N/A</p>	
<p>(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 focus and focus changes.</p>	<p>Provided by the browser.</p>	
<p>(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.</p>	<p>As far as I know</p>	
<p>(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.</p>	<p>Yes</p>	
<p>(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</p>	<p>N/A?</p>	

attributes.		
(g) Applications shall not override user selected contrast and color selections and other individual display attributes.	Yes	
(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.	N/A	
(i) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.	Yes, all information conveyed with color is also conveyed using a differently shaped and tagged icon or accompanying text.	Some question content utilizes color to differentiate graphs. Most also include text labels, but some do not.
(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.	A high contrast, mostly black-and-white, theme is available to users	
(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.	Yes	
(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.	Mostly. Some form elements are not properly labeled.	

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Section 1194.22 Web-based Internet

information and applications – Detail

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<i>Criteria</i>	Supporting Features	Remarks and explanations
<p>(a) A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content).</p>	<p>System icons contain alt tags. There is very little other use of images.</p> <p>Mathematical graphs auto-generated by the system will display as tables of values when text-based accessibility mode is enabled.</p> <p>Mathematical content can be rendered using MathML, which can interface with the MathPlayer plugin to Internet Explorer 9 to provide screenreader compatibility for reading math.</p>	<p>Question content contributed by individual faculty may contain questions using static images without alt tags added.</p>
<p>(b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.</p>	<p>The platform itself does not use multimedia, but supports use of it.</p> <p>Videos are typically embedded from YouTube. YouTube automatic captioning is available, as well as full captioning when it has been provided for the video.</p>	<p>All video content has been user-contributed, and may or may not contain captioning. A large number of videos (over 2000) do contain professional closed captioning.</p>
<p>(c) Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup.</p>	<p>Yes, all information conveyed with color is also conveyed using a differently shaped and tagged icon or accompanying text.</p>	<p>Some question content utilizes color to differentiate graphs. Most also include text</p>

		labels, but some do not.
(d) Documents shall be organized so they are readable without requiring an associated style sheet.	Yes, the site is readable (but a bit ugly) without a style sheet.	
(e) Redundant text links shall be provided for each active region of a server-side image map.	No image maps are used.	
(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.	No image maps are used.	
(g) Row and column headers shall be identified for data tables.	Yes, headers are identified.	
(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.	N/A	
(i) Frames shall be titled with text that facilitates frame identification and navigation	Frames are not used, except possible iframes inserted by the user.	
(j) Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.	Yes.	
(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	N/A.	

primary page changes.		
(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.	I'm not quite sure what this means.	
(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).	N/A	
(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.	Mostly. Some form elements are not properly labeled.	
(o) A method shall be provided that permits users to skip repetitive navigation links.	Yes, in assessments.	There is room for improvement in skipping navigation on course pages.
(p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	Users are alerted when a time limit in an assignment is being reached.	

Note to 1194.22: The Board interprets paragraphs (a) through (k) of this section as consistent with the following priority 1 Checkpoints of the Web Content Accessibility Guidelines 1.0 (WCAG 1.0) (May 5 1999) published by the Web

Accessibility Initiative of the World Wide Web Consortium: Paragraph (a) - 1.1, (b) - 1.4, (c) - 2.1, (d) - 6.1, (e) - 1.2, (f) - 9.1, (g) - 5.1, (h) - 5.2, (i) - 12.1, (j) - 7.1, (k) - 11.4.

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Section 1194.23 Telecommunications Products

– Detail

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Criteria	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 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.		
(c) Voice mail, auto-attendant, and interactive voice response telecommunications systems shall be usable by TTY users with their TTYs.		
(d) Voice mail, messaging, auto-attendant, and interactive voice response telecommunications		

<p>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.</p>		
<p>(e) Where provided, caller identification and similar telecommunications functions shall also be available for users of TTYs, and for users who cannot see displays.</p>		
<p>(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.</p>		
<p>(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.</p>		
<p>(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.</p>		
<p>(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.</p>		
<p>(j) Products that transmit or conduct information or communication, shall pass through cross-manufacturer, non-proprietary, industry-standard</p>		

<p>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.</p>		
<p>(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.</p>		
<p>(k)(2) Products which have mechanically operated controls or keys shall comply with the following: Controls and Keys shall be operable with one 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.</p>		
<p>(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.</p>		
<p>(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.</p>		

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Section 1194.24 Video and Multi-media

Products – Detail

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Criteria	Supporting Features	Remarks and explanations
<p>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,</p>		

<p>decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals.</p>		
<p>(b) Television tuners, including tuner cards for use in computers, shall be equipped with secondary audio program playback circuitry.</p>		
<p>(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.</p>		
<p>(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.</p>		
<p>(e) Display or presentation of alternate text presentation or audio descriptions shall be user-selectable unless permanent.</p>		

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**Section 1194.25 Self-Contained, Closed
Products – Detail**

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Criteria	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.		
(b) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.		
(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).		
(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.		

<p>(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.</p>		
<p>(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.</p>		
<p>(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.</p>		
<p>(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.</p>		

<p>(i) Products shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.</p>		
<p>(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.</p>		
<p>(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.</p>		
<p>(j)(3) Products which are freestanding, non-portable, and intended to be used in one location</p>		

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.		
(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.		

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**Section 1194.26 Desktop and Portable
Computers – Detail**

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Criteria	Supporting Features	Remarks and explanations
(a) All mechanically operated controls and keys shall comply with §1194.23 (k) (1) through (4).		
(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).		
(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.		
(d) Where provided, at least one of each type of expansion slots, ports and connectors shall comply with publicly available industry standards		

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Section 1194.31 Functional Performance

Criteria – Detail

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Criteria	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		

<p>for Assistive Technology used by people who are blind or visually impaired shall be provided.</p>		
<p>(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.</p>		
<p>(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</p>		
<p>(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.</p>		
<p>(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</p>		

provided.		
(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.		

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**Section 1194.41 Information, Documentation
and Support – Detail**

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Criteria	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		
(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.		
(c) Support services for products shall		

accommodate the communication needs of end-users with disabilities.		
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