

## Voluntary Product Accessibility Template (VPAT)

Name of Product	Knovel
Date	February 27, 2015
Completed by	Ted Gies, Elsevier UCD, Dayton
Contact for More Information	Ted Gies Principal User Experience Specialist <a href="mailto:ted.gies@elsevier.com">ted.gies@elsevier.com</a> <a href="mailto:accessibility@elsevier.com">accessibility@elsevier.com</a>
Product Version Number	Phoenix origin_Release_2015_01_31_Hotfix.18-02-15
Product Release Date	February 18, 2015
Testing Tools and Methods	Hands-on keyboard operation Firebug/Code inspection JAWS 11, JAWS 15 on Mozilla Firefox 29 and MS IE 9 on Windows 7 NVDA on Windows Open Ajax Alliance (OAA) side bar Wave toolbar
Guidelines Used to Complete this VPAT	SSA guide to filling out a VPAT: <a href="http://www.socialsecurity.gov/accessibility/files/SSA_guide_to_completing_the_voluntary_product_accessibility_template.pdf">http://www.socialsecurity.gov/accessibility/files/SSA_guide_to_completing_the_voluntary_product_accessibility_template.pdf</a>  Webaim.org Section 508 checklist: <a href="http://webaim.org/standards/508/checklist">http://webaim.org/standards/508/checklist</a>  Jim Thatcher's online course on Section 508 Guidelines: <a href="http://jimthatcher.com/webcoursesec.htm">http://jimthatcher.com/webcoursesec.htm</a>  The W3C WCAG 2.0 scripting techniques used to guide the scripting section: <a href="http://www.w3.org/TR/WCAG20-SCRIPT-TECHS/client-side-script.html">http://www.w3.org/TR/WCAG20-SCRIPT-TECHS/client-side-script.html</a>  Elsevier Accessibility Checklist: <a href="http://romeo.elsevier.com/accessibility_checklist/">http://romeo.elsevier.com/accessibility_checklist/</a>
Pages Covered	Homepage, Browse Page, Data Search, Table View, Search Results, Journal Table of Contents, HTML Journal Article, PDF Journal Article, Book Chapter, Database Home: (Yaw's Handbook of Properties)
Pages on Accessibility Roadmap	Improving all pages is on roadmap for 2015

## Applicable Sections

Section	Supporting Features	Remarks
<p>Section 1194.21 <a href="#">Software Applications and Operating Systems</a></p>	<p>Supports: B, E, G, I, L</p> <p>Supports with exceptions: A, C, D, F</p> <p>Not applicable: H, J, K</p>	<p>a) Nearly all UI elements and controls are accessible with the keyboard.</p> <p>b) Knovel should not interrupt any APIs/operating system (OS) functions.</p> <p>c) Most elements have some form of visible focus, although it should be more well-defined. Most elements follow a logical tab order.</p> <p>d) Knovel communicates most of its interface and navigation to Assistive Technology.</p> <p>e) Knovel uses very few background and static images that identify as controls or UI elements, and they are consistent throughout the website.</p> <p>f) Users with screen readers can access almost all textual information.</p> <p>g) Knovel will not interfere with any contrast settings, magnification settings or keyboard sensitivity settings set by the OS.</p> <p>h) Knovel does not use any videos or animation.</p> <p>i) Elements do not use color coding as the only means of conveying information.</p> <p>j) Not applicable</p> <p>k) Not applicable</p> <p>l) Forms are accessible, have proper labels and instructions, and are easily submitted.</p>
<p>Section 1194.22 <a href="#">Web-based Internet Information and Applications</a></p>	<p>Supports: C, D, K, M</p>	<p>a) Most images and icons used have associated text equivalents.</p>

	<p>Supports with exceptions: A, L, N, O</p> <p>Does not support: G</p> <p>Not applicable: B, E, F, H, I, J, P</p>	<p>b) Knovel does not have any videos or synchronized media.</p> <p>c) Elements do not use color coding as the only means of conveying information.</p> <p>d) Knovel uses external style sheets instead of inline styles.</p> <p>e) Not applicable</p> <p>f) Not applicable</p> <p>g) Tables used do not have row or column headers</p> <p>h) Not applicable</p> <p>i) Not applicable</p> <p>j) Not applicable</p> <p>k) Knovel does not have any primary functionality that warrants a separate text-only page.</p> <p>l) JavaScript functions are keyboard operable and identified by AT. The exceptions are modal dialog windows.</p> <p>m) Knovel does not require any plugins or applications on the client system in order to use the core features.</p> <p>n) Forms are accessible, have proper labels and instructions, and are easily submitted. The exceptions are the data table page form and data search query builder.</p> <p>o) Headings and landmarks exist on most pages, which allow AT users to jump to the different areas of content quickly. No specific "skip link" exists.</p> <p>p) Not applicable</p>
Section 1194.23 Telecommunications	Not Applicable	

Products		
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 <a href="#">Functional Performance Criteria</a>	<p>Supports: B, C</p> <p>Supports with exceptions: A, F</p> <p>Not applicable: D, E</p>	<p>A) Knovel is a website that uses HTML, CSS, and JavaScript. HTML and JavaScript are both supported by screen readers such as JAWS and by Braille displays. The UI itself uses standard HTML controls such as links, buttons, and form controls which are all identifiable by screen readers. A few exceptions concerning alt text and labels exist.</p> <p>B) All content and controls should be compatible with screen enlargement software and with built-in browser zoom functionality.</p> <p>C) All functionality in the interface is usable without requiring hearing.</p> <p>D) Not applicable</p> <p>E) Not applicable</p> <p>F) Nearly all of Knovel's controls and links are keyboard operable, except for a few items defined in 1194.21 (A).</p>
Section 1194.41 <a href="#">Information, Documentation and Support</a>	<p>Supports: A, C</p> <p>Does not support: B</p>	<p>A) Support documentation is available in a variety of formats including HTML, image, and video tutorials.</p> <p>B) Knovel does not have a description of the accessibility and compatibility features of the product.</p> <p>C) A contact page is provided for users to contact Knovel directly through email, phone, or live chat.</p>

## Legend

<b>Not Applicable</b>	Supports, or Supports with assistive technology	Supports with exceptions	Does not support
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## Section 1194.21

### Software Applications and Operating Systems

Criteria	Supporting Features	Remarks
(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	<p>Most elements are accessible by keyboard.</p> <p>Exceptions:</p> <ul style="list-style-type: none"> <li>On the Data Search page, users cannot add properties with the keyboard when using a screen reader. Keyboard users can add properties if not using a screen reader.</li> <li>On the Data Search page, users cannot open a parent property without also adding the property to the search when using a keyboard.</li> <li>On the Data Table page, the clear search and search buttons and row selection checkboxes lack keyboard support.</li> <li>Links within the PDF viewer are not accessible by keyboard.</li> <li>The PDF viewer has 7 icon buttons that have visible text labels only if you mouse over them.</li> </ul>
(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	Supports	Knovel does not have features that would interfere with standard API features of an OS including the MSAA (Microsoft Active Accessibility).

<p>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>(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>Supports with exceptions</p>	<p>Most elements have some form of visible focus, although it should be more well-defined. Focus order is logical for most of the system.</p> <p>Exceptions:</p> <ul style="list-style-type: none"> <li>• On the Homepage, the links in the carousel do not have visible focus.</li> <li>• On the Table view page, the table headers for sorting, and row selection inputs do not have visible focus.</li> <li>• On the Table view page, the content that appears when activating the "Contents" button does not have visible focus.</li> <li>• Links within an HTML journal article do not have visible keyboard focus.</li> <li>• The "Notes" lightbox on the Table view page does not restrict focus. Additionally, it cannot be closed with the escape key.</li> <li>• On the HTML Journal Article page, the Create a Citation lightbox does not restrict focus.</li> <li>• The links within the Tools dropdown in the global navigation are tabbed through in a nonsensical order.</li> <li>• Modal windows such as surveys currently do not set focus to the window nor restrict focus to windows.</li> </ul>
<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>Supports with exceptions</p>	<p>Knovel communicates most of its interface and navigation to Assistive Technology with good use of standard HTML for controls.</p> <p>Exceptions:</p> <p>On the Data Table view page widgets are unlabeled including:</p> <ul style="list-style-type: none"> <li>• minimize/maximize button</li> <li>• next/previous page buttons</li> <li>• row selection checkboxes.</li> </ul> <p>On the Data Table view page, the table headers are not read out by assistive technology.</p>

		<p>On the Data Search page, the properties tree does not communicate which properties are expanded/collapsed and separately which are addable properties vs just parent (not addable) properties.</p> <p>The auto-suggest search feature displays items that are announced to assistive technology and operable using a keyboard. However, the state of the number of results returned is not announced to assistive technology.</p> <p>Also see 22a for the limited number of unlabeled images.</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.	Supports	Knovel uses very few background and static images that identify as controls or UI elements, and they are consistent throughout the website.
(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 with exceptions	<p>Users with screen readers can access almost all textual information.</p> <p>On the PDF viewer page, the PDF itself is inaccessible to screen readers, but a link to download the PDF is available and accessible.</p> <p>Exceptions:</p> <p>On the Data Table page, the table headers are not read out by screen readers.</p>
(g) Applications shall not override user selected contrast and color selections and other individual display attributes.	Supports	Knovel will not interfere with any contrast settings, magnification settings or keyboard sensitivity settings set by the OS.
(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	Knovel does not use any videos or animation.
(i) Color coding shall not	Supports	Knovel does not use color coding to convey

<p>be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.</p>		<p>information.</p>
<p>(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.</p>	<p>Not applicable</p>	<p>Knovel does not offer any options to adjust color and contrast settings.</p>
<p>(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.</p>	<p>Not applicable</p>	<p>Knovel does not have any flashing or blinking texts or objects.</p>
<p>(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.</p>	<p>Supports with Exceptions</p>	<p>Forms are accessible, have proper labels and instructions, and are easily submitted.</p> <p>Exceptions:  Data Table pages would be unusable using keyboard only or with a screen reader because of lack of keyboard support for selecting the rows. The lack of table headings and lack of checkbox labels would make it difficult to understand the association between functional buttons and the data.</p> <p>The Data Search Query Builder would be difficult to use with a screen reader because of the needed associations between left and right panes and the structure and labelling of the query itself. A simpler search by Material or Substance Name or Find a Property is available and recommended for AT users.</p>

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## Section 1194.22

### Web-based Internet information and applications

Criteria	Supporting Features	Remarks
(a) A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content).	Supports with exceptions	<p>Most images and icons used have associated text equivalents.</p> <p>Exceptions:</p> <ul style="list-style-type: none"> <li>• On the Data Search page, the property tree items do not indicate: (whether or not addable, parent, open/closed state).</li> <li>• On the Browse page, the images within the JavaScript carousel should have null alt text (alt="").</li> <li>• On the Table view page, the clear search and search button images need alt text indicative of their purpose.</li> <li>• On the Search Results page, the book images in the results need null alt text (alt="").</li> <li>• On the Book Table of Contents page, whether an article within the volume is an HTML page or PDF needs to be within the alt text for the icon next to the article.</li> <li>• On Database Home page, the features icons need alt text indicative of their purpose.</li> <li>• The images within the HTML journal article do not have alt text.</li> </ul>
(b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.	Not Applicable	Knovel does not have any videos or synchronized media.
(c) Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup.	Supports	Knovel does not use color coding to convey information.
(d) Documents shall be organized so they are readable without requiring an associated style sheet.	Supports	Knovel uses external style sheets instead of inline styles.
(e) Redundant text links shall be provided for each active region of a server-side image map.	Not applicable	Knovel does not have any server-side image maps.
(f) Client-side image maps	Not applicable	Knovel does not have any 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.		
(g) Row and column headers shall be identified for data tables.	Does not support.	The tables used in the Data Table page do not use row or column headers. Data tables within HTML journal articles do not use <th scope="col"> to identify column headings.
(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	Data tables on the site do not have two or more logical levels of row or column headers.
(i) Frames shall be titled with text that facilitates frame identification and navigation	Not applicable.	Knovel does not use any frames.
(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	Knovel does not use any images that flash, blink or flicker.
(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.	Supports	Knovel does not have any primary functionality that warrants a separate text-only page.
(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	Supports with Exceptions	Many parts of the UI and displayed content utilize JavaScript. The information supplied by these scripts is available and conveyed to Assistive Technology. The system uses a small number of modal windows such as for a survey, citation window, and full size figure windows. These windows are currently not identifying the windows as dialogs and do not restrict keyboard focus. Additionally, auto-suggest search items are read by AT but there is not an alert of how many items have been

Assistive Technology.		found.
(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).	Supports	Knovel does not require any plugins or applications on the client system in order to use the core features.
(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.	Supports	Primary forms are accessible, have proper labels and instructions, and are easily submitted. The exceptions are the data table page functions and the Data Search Query builder.
(o) A method shall be provided that permits users to skip repetitive navigation links.	Supports with exceptions	Headings and landmarks exist on most pages, which allow users using Assistive Technology to jump to the different areas of content quickly.  There is no specific "skip link" on any pages however.
(p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	Not applicable	There are no pages with a required timed response.

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<b>Section 1194.31</b>		
<b>Functional Performance Criteria</b>		
Criteria	Supporting Features	Remarks
(a) At least one mode of operation and information retrieval that does not require user vision shall be	Supports with exceptions	Knovel is a website that uses HTML, CSS, and JavaScript. HTML and JavaScript are both supported by screen readers such as JAWS and by Braille displays.

<p>provided, or support for Assistive Technology used by people who are blind or visually impaired shall be provided.</p>		<p>The UI itself primarily uses standard HTML controls such as links, buttons, and form controls which are all identifiable by screen readers. A few instances of images used as UI controls exist, the concerns of which are described in 1194.22 (A).</p> <p>The exceptions to the vision requirement include a few items concerning alternative text as described in 1194.22 (A) as well as some smaller form issues described in 1194.22 (L).</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>Supports</p>	<p>Knovel uses HTML and text for its content as well as independent CSS for formatting to allow users to apply their own style sheets.</p> <p>OS features such as Windows 7 Magnifier are compatible with the Knovel application.</p> <p>Other browser controls such as Mozilla Firefox Zoom-In feature will work with Knovel.</p> <p>Knovel is usable with screen magnification software such as ZoomText.</p> <p>Knovel offers a built in Zoom functionality on the Book Chapter page.</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>Supports</p>	<p>Knovel does not require user hearing to operate any application or functionality. Product support is provided through telephone, email, or live chat.</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>Not applicable</p>	<p>There are no circumstances where audio information is important for use of the product.</p>
<p>(e) At least one mode of operation and information retrieval that does not require user speech shall</p>	<p>Not applicable</p>	<p>Knovel does not require any speech input for operation.</p>

be provided, or support for Assistive Technology used by people with disabilities shall be 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.	Supports with exceptions	<p>Most of Knovel's controls and links are keyboard operable, except for some items defined in 1194.21 (A).</p> <p>Users may use their browser text enlarging tool to enlarge controls for easier clickability.</p> <p>Label tags have been applied to small controls such as checkboxes and radio buttons in some places to allow for easier selection with a mouse.</p>

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<b>Section 1194.41 Information, documentation, and support</b>		
Criteria	Supporting Features	Remarks
(a) Product support documentation provided to end-users shall be made available in alternate formats upon request, at no additional charge.	Supports	<p>Knovel provides support documentation with HTML text instructions, accompanying images and video.</p> <p>A support center link exists in the header for easy access.</p>
(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.	Does not support	Knovel does not have a description of the accessibility and compatibility features of the product.
(c) Support services for products shall accommodate the communication needs of end-users with disabilities.	Supports	<p>Knovel provides a searchable database where users can peruse questions and answers.</p> <p>A contact page is also provided for users to contact Knovel directly through email, phone, or live chat.</p>

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