

# 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.

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**Date:** September 22, 2011

**Name of Product:** B Series Notebook

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### *Summary Table*

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<i>Criteria</i>	Supporting Features	Remarks and explanations
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Section 1194.21 [Software Applications and Operating Systems](#)

NCS is supplying Section 508 compliant office applications and operating systems by Microsoft

Windows 7 includes multiple improvements in the assistive technology and accessibility feature. The on-screen keyboard and Magnifier have been extensively updated and the Windows Automation Application Programming Interface (API), has been updated to facilitate assistive technology and information technology interoperability. The Windows Automation API includes improved performance and features of User Interface (UI) Automation, increased interoperability between the Microsoft Active Accessibility (MSAA), and support for W3C Accessible Rich Internet Applications Specification (ARIA). Please refer to the [Microsoft Developer Network Windows Automation API: Overview](#) for additional information.

Windows 7 follows standard

		<p>conventions for keyboard navigation. For instances where the keyboard interface is not intuitive (for example, by using the Tab, Enter, Escape keys or the arrow keys), the keyboard interface is documented in the online help.</p> <p>Minor exceptions in individual features are noted in the main VPAT.</p> <p>Additional Windows accessibility features information can be found on the <a href="#">Windows 7 features site</a>.</p>
Section 1194.22 <a href="#">Web-based Internet Information and Applications</a>	n/a	
Section 1194.23 <a href="#">Telecommunications Products</a>	See below VPAT	
Section 1194.24 <a href="#">Video and Multi-media Products</a>	See below VPAT	
Section 1194.25 <a href="#">Self-Contained, Closed Products</a>	n/a	
Section 1194.26 <a href="#">Desktop and Portable Computers</a>	See below VPAT	
Section 1194.31 <a href="#">Functional Performance Criteria</a>	Generally Supported	Windows 7 provides numerous features for improving the visibility of user interfaces, such as a built-in magnifier,

several high-contrast modes, different themes, several high-DPI (dots per inch) modes, various screen resolutions (if supported by the hardware), and additional features from the Ease of Access center for changing the size of the cursor, changing the thickness of the focus rectangle, and others.

The Windows 7 Magnifier application now supports two new modes of operation – full-screen and lens mode – as well as color inverting and many new features which improve and facilitate the user experience. It should be noted that an Aero-capable machine is needed for full-screen mode. Please refer to the [Windows 7 Magnifier site](#) for additional information.

The high-DPI mode specifically has been significantly improved – the feature is easier to discover and understand, switching between different modes now does not

		<p>require a machine reboot, and the high-DPI modes can now be configured per user.</p> <p>The on-screen keyboard in Windows 7 includes some significant improvements such as the addition of text prediction (except on Windows 7 Starter and Home Basic) in the following languages – English (UK and US), French, Italian, German, and Spanish – a resizable keyboard, improved user experience for hover and scan modes, and the ability to restore an accidentally minimized on-screen keyboard. Please refer to the <a href="#">Windows 7 on-screen keyboard site</a> for additional information.</p>
<p>Section 1194.41 <a href="#">Information, Documentation and Support</a></p>	<p>Supported</p>	

[Return to the top of the page.http://www.itic.org/Local Settings/Temporary Internet Files/OLK42/VPAT.html](http://www.itic.org/Local Settings/Temporary Internet Files/OLK42/VPAT.html)

***Section 1194.21 Software Applications and***

## Operating Systems – Detail

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<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
<p>(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.</p>	<p>Supported with minor exceptions</p>	<p>Windows 7 follows standard conventions for navigating around the user interface from the keyboard. For instances where the keyboard interface is not intuitive (for example, by using the Tab, Enter, or Escape key or the arrow keys), the keyboard interface is documented in the online help.</p> <p>Users can adjust the way Windows responds to mouse or keyboard input so that key combinations are easier to press, typing is easier, and inadvertent key presses are ignored. For more information, see <a href="#">Make the keyboard easier to use</a>.</p> <p>Please note the following minor exceptions:</p> <p>Drawing on the canvas of the Paint program is not possible through keyboard-only navigation.</p>

		<p>In Explorer windows, the user can use the System menu (ALT+SPACEBAR) to resize the window. However, there is no keyboard method to resize individual panes (such as the navigation pane or the preview pane) or columns.</p> <p>Certain applications using the list view control do not expose a keyboard-only navigation mechanism for the user to change the sort-order or sort-by-column of the list view.</p> <p>The XPS Viewer does not expose a mechanism for the user to activate a hyperlink through keyboard-only navigation. The hyperlink information is exposed programmatically to assistive technologies.</p> <p>The icons on the taskbar cannot be arranged through keyboard-only navigation unless the user closes all applications and restarts them in the desired order.</p> <p>The Color Selection control in the Paint ribbon does not support keyboard navigation, and does</p>
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		<p>not expose programmatically its state or selected color. The Paint application provides additional user interfaces (buttons in Paint's ribbon) which allow the user to change the color through keyboard navigation.</p>
<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>Supported</p>	<p>There are no known instances of Windows 7 applications or individual features that disable or disrupt the operation of the Windows accessibility features.</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>Supported with minor exception</p>	<p>Programmatic and visual focus can be determined in all themes and color schemes. For improved visual appearance, the Ease of Access Center allows the user to increase the thickness of the focus rectangle and the cursor. The built-in magnifier provides the capabilities to track the location of the currently focused item.</p> <p>There is one minor note of interest:</p>

		<p>When locking a machine (after pressing CTRL+ALT+DELETE) the keyboard-focus rectangle may be difficult to see, due to low contrast between the color of the focus rectangle and the colors of the background images. The <a href="#">Windows OEM Preinstallation Kits (OPK)</a> and <a href="#">Windows Automated Installation Kit (WAIK)</a> document how users can change the background image to one of their choice that could improve the contrast ratio. There are also third-party applications that allow a user to change the background of the logon screen.</p> <p>Please note the following minor exception: When an FTP protocol is used in Windows Explorer to access files, the FTP Protocol dialog for changing Read/Write/Execute properties does not specify individual names for the checkboxes, making it difficult for a user to determine which checkbox has currently the focus.</p>
<p>(d) Sufficient information about a user interface element including the identity, operation and state of the element shall be available to</p>	<p>Supported with minor exceptions</p>	<p>Windows 7 includes multiple improvements in the Windows Automation</p>

Assistive Technology. When an image represents a program element, the information conveyed by the image must also be available in text.

Application Programming Interface (API), which will enable more powerful accessibility solutions to be created for the platform. The Windows Automation API includes improved performance and features of User Interface (UI) Automation, increased interoperability between the Microsoft Active Accessibility (MSAA), and support for W3C Accessible Rich Internet Applications Specification. Please refer to the [Windows Automation API: Overview site](#) for additional information.

User interface information is available programmatically to assistive technology vendors through Microsoft Active Accessibility, User Interface Automation, and other publicly available APIs. Graphics are also accompanied by explanatory text throughout the UI, when the graphic's sole purpose is not branding or secondary background information (such as desktop wallpaper).

Please note the following minor

		<p>exceptions:</p> <p>When User Account Control is modified from its default settings, such that consent or credential UI is displayed on the interactive desktop rather than the secure desktop, some controls will be inaccessible through Microsoft Active Accessibility. The solution to this is to accept UAC's default behavior of displaying that UI on the secure desktop.</p> <p>The Windows Media Center user interface does not support the Microsoft Active Accessibility API for determining the accessible object by specifying screen position. The assistive technology vendors who need this information can obtain it through alternative means, for example by traversing the accessible tree.</p> <p>Some expandable buttons in Credentials Manager and Action Center do not consistently expose their state, thus requiring the user to determine whether they are expanded or collapsed from the context</p>
(e) When bitmap images are used to identify controls, status	Supported	Windows 7 consistently uses

<p>indicators, or other programmatic elements, the meaning assigned to those images shall be consistent throughout an application's performance.</p>		<p>icons, graphics, status indicators, and other visuals to give feedback to the user and to indicate what actions can be taken.</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 attributes.</p>	<p>Supported with minor exceptions</p>	<p>Textual information is available programmatically to assistive technology vendors through Microsoft Active Accessibility, User Interface Automation, and other publicly available APIs.</p> <p>Please note the following minor exceptions:</p> <p>In Windows Media Player, the dialog New Auto Playlist does not expose textually certain details on configuring criteria for the playlists.</p> <p>The graph chart in the Reliability Monitor exposes the information textually in a non-standard way, which may confuse certain assistive technologies.</p>
<p>(g) Applications shall not override user selected contrast and color selections and other individual display attributes.</p>	<p>Supported with minor exceptions</p>	<p>Windows 7 provides and follows settings for customizing specific color selections and display attributes, with the following minor exceptions:</p> <p>Some gadgets may</p>

		<p>have low contrast between the text and the background color in certain high-contrast modes.</p> <p>The Tablet PC calibration tool includes text that will be invisible in certain high-contrast modes. The user should first read the instructions in normal mode or high-contrast White, or calibrate the monitor in one of these two modes.</p> <p>The speech recognition tutorial does not switch colors in high-contrast modes, however the tutorial is not required to be completed by a user to use Windows speech recognition and an alternate means to train the speech system is available to the user. Basic operating information concerning speech commanding and dictation are also available in the help system.</p> <p>Launching the Memory Diagnostics tool in high-contrast does not use the appropriate colors, making some texts invisible. Switching back and forth to that same high-contrast mode while the tool is running fixes the problem.</p>
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		<p>In Windows Media Player, hover preview does not work in high-contrast mode. The user can preview songs through other WMP mechanisms.</p> <p>Windows Media Center does not use the Windows-wide settings for high-contrast mode. Instead it defines two independent high-contrast modes which are consistently supported across all Windows Media Center UI surfaces.</p> <p>Due to their non-standard visual nature, the games do not support the standard high-contrast modes. Instead, they provide a mechanism for the user to change their appearances and colors.</p>
<p>(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.</p>	<p>Supported</p>	<p>Windows 7 consistently uses icons, graphics, status indicators, and other visuals to give feedback to the user and to indicate what actions can be taken. Animation is not relied upon as the sole means of communicating concepts in the user interface or documentation.</p>
<p>(i) Color coding shall not be used as the only means of conveying information, indicating an action,</p>	<p>Supported</p>	<p>Windows 7 consistently uses icons, graphics, status indicators, and</p>

<p>prompting a response, or distinguishing a visual element.</p>		<p>other visuals to give feedback to the user and to indicate what actions can be taken. Color coding is not relied upon as the sole means of communicating concepts in the user interface or documentation.</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>Supported</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>Supported</p>	<p>Flashing and blinking in Windows 7 visual surfaces respect the prescribed frequency range. As in Windows Vista, the Ease of Access center allows the user to change the rate of blinking of the system caret.</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>Not applicable</p>	

[Return to the top of the page.http://www.itic.org/Local Settings/Temporary Internet Files/OLK42/VPAT.html](http://www.itic.org/Local%20Settings/Temporary%20Internet%20Files/OLK42/VPAT.html)

***Section 1194.22 Web-based Internet information and applications – Detail***

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<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
(a) A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content).	n/a	Support is dependent on implementation by separate product.
(b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.	n/a	Support is dependent on implementation by separate product.
(c) Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup.	n/a	Support is dependent on implementation by separate product.
(d) Documents shall be organized so they are readable without requiring an associated style sheet.	n/a	Support is dependent on implementation by separate product.
(e) Redundant text links shall be provided for each active region of a server-side image map.	n/a	Support is dependent on implementation by separate product.
(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.	n/a	Support is dependent on implementation by separate product.
(g) Row and column headers shall be identified for data tables.	n/a	Support is dependent on implementation by separate product.
(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	Support is dependent on implementation by separate product.
(i) Frames shall be titled with text that facilitates frame identification	n/a	Support is dependent on

and navigation		implementation by separate product.
(j) Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.	n/a	Support is dependent on implementation by separate product.
(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.	n/a	Support is dependent on implementation by separate product.
(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.	n/a	Support is dependent on implementation by separate product.
(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	Support is dependent on implementation by separate product.
(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.	n/a	Support is dependent on implementation by separate product.
(o) A method shall be provided that permits users to skip repetitive navigation links.	n/a	Support is dependent on implementation by separate product.
(p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	n/a	Support is dependent on implementation by separate product.

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.

[Return to the top of the page. http://www.itic.org/Local Settings/Temporary Internet Files/OLK42/VPAT.html](http://www.itic.org/Local Settings/Temporary Internet Files/OLK42/VPAT.html)

## **Section 1194.23 Telecommunications Products**

### **– Detail**

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<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
(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.	n/a	Support is dependent on implementation by separate product.
(b) Telecommunications products which include voice communication functionality shall support all commonly used cross-manufacturer non-proprietary standard TTY signal protocols.	n/a	Support is dependent on implementation by separate product.
(c) Voice mail, auto-attendant, and interactive voice response telecommunications systems shall be usable by TTY users with their TTYs.	n/a	Support is dependent on implementation by separate product.

<p>(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.</p>	<p>n/a</p>	<p>Support is dependent on implementation by separate product.</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>n/a</p>	<p>Support is dependent on implementation by separate product.</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>n/a</p>	<p>Support is dependent on implementation by separate product.</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>n/a</p>	<p>Support is dependent on implementation by separate product.</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>n/a</p>	<p>Support is dependent on implementation by separate product.</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>n/a</p>	<p>Support is dependent on implementation by separate product.</p>
<p>(j) Products that transmit or conduct</p>	<p>Supported</p>	<p>Microsoft Media</p>

<p>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.</p>		<p>Player and Media Center meet this requirement, these are included with Windows 7.</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>Supported</p>	<p>NCS is supplying a standard windows keyboard with tactile marks on the “j” and “f” 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>Supported</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>Supported</p>	<p>This is configurable in Windows 7 with the accessibility features.</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>	<p>Supported with minor exceptions</p>	<p>Caps lock and Num Lock are the only keys with a visible locking indicator on the notebook itself located on the panel at the upper left corner of the keyboard. These</p>

		<p>toggles are also audibly discernable through the operating system. Scroll Lock has a visible locking indicator in certain applications (ie. MS Excel).</p>
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[Return to the top of the page. http://www.itic.org/Local Settings/Temporary Internet Files/OLK42/VPAT.html](http://www.itic.org/Local Settings/Temporary Internet Files/OLK42/VPAT.html)

## **Section 1194.24 Video and Multi-media**

### **Products – Detail**

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<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
<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</p>	<p>n/a</p>	<p>Support is dependent on implementation by separate product.</p>

<p>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.</p>		
<p>(b) Television tuners, including tuner cards for use in computers, shall be equipped with secondary audio program playback circuitry.</p>	<p>n/a</p>	<p>Support is dependent on implementation by separate product.</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>Supported</p>	<p>All audio/visual training included in Windows 7 is also available (either in the box or through a separate request) in alternative textual formats. For example, the animated tutorial for speech input conveys all instructions with text, using animation and video as supplementary information.</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</p>	<p>Supported</p>	<p>All audio/visual training included in Windows 7 is also available (either in the box or through a separate request) in alternative textual formats. For example, the animated tutorial for speech input conveys all instructions with text, using animation and video as supplementary information.</p>

content, shall be audio described.		
(e) Display or presentation of alternate text presentation or audio descriptions shall be user-selectable unless permanent.	Supported	The Windows Media Center and Windows Media Player allow for user control of display of alternate text or audio description, provided such is available with the media being viewed.

[Return to the top of the page. http://www.itic.org/Local Settings/Temporary Internet Files/OLK42/VPAT.html](http://www.itic.org/Local Settings/Temporary Internet Files/OLK42/VPAT.html)

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

### **VPAT™**

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<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
(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.	n/a	Support is dependent on implementation by separate product.
(b) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	n/a	Support is dependent on implementation by separate product.
(c) Where a product utilizes touchscreens or contact-sensitive controls, an input method	n/a	Support is dependent on implementation by separate product.

<p>shall be provided that complies with §1194.23 (k) (1) through (4).</p>		
<p>(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>	<p>n/a</p>	<p>Support is dependent on implementation by separate product.</p>
<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>n/a</p>	<p>Support is dependent on implementation by separate product.</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>n/a</p>	<p>Support is dependent on implementation by separate product.</p>
<p>(g) Color coding shall not be used as the only means of conveying</p>	<p>n/a</p>	<p>Support is dependent on implementation by separate product.</p>

information, indicating an action, prompting a response, or distinguishing a visual element.		
(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.	n/a	Support is dependent on implementation by separate product.
(i) Products shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.	n/a	Support is dependent on implementation by separate product.
(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.	n/a	Support is dependent on implementation by separate product.
(j)(2) Products which are freestanding, non-portable, and intended to be used in one location	n/a	Support is dependent on implementation by separate product.

<p>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 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.</p>	<p>n/a</p>	<p>Support is dependent on implementation by separate product.</p>
<p>(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.</p>	<p>n/a</p>	<p>Support is dependent on implementation by separate product.</p>

[Return to the top of the page. http://www.itic.org/Local Settings/Temporary Internet Files/OLK42/VPAT.html](http://www.itic.org/Local Settings/Temporary Internet Files/OLK42/VPAT.html)

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

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<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
(a) All mechanically operated controls and keys shall comply with §1194.23 (k) (1) through (4).	Supported	This notebook has a standard windows keyboard with tactile marks on the “j” and “f” keys. The force needed to activate the keys on the keyboard is less than 5lbs. The key repeat rate can be adjusted to at least 2 seconds in the operating system. The status of all locking or toggle controls is visually discernable through three LED indicators located on the panel at the upper left corner of the keyboard. These toggles are also audibly discernable through the operating system.
(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).	Supported	Third party touch screens can be added to this product solution. But since this notebook already supplies an alternate method to interface with the computer (namely the keyboard and touchpad); these alternate methods of input would still be available to the user.
(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.	Supported	A fingerprint reader is optional for this device; also a third party fingerprint reader could be added to this product solution. The Windows 7 operating system already has provisions for alternate ways of logging onto the device.
(d) Where provided, at least one of each type of expansion slots, ports and connectors shall	Supported	NCS is supplying industry standard connection points, NCS is supplying USB, PS/2, serial, parallel, VGA, and standard audio connectors.

comply with publicly available industry standards		
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[Return to the top of the page. http://www.itic.org/Local Settings/Temporary Internet Files/OLK42/VPAT.html](http://www.itic.org/Local Settings/Temporary Internet Files/OLK42/VPAT.html)

## **Section 1194.31 Functional Performance**

### **Criteria – Detail**

## **VPAT™**

### **Voluntary Product Accessibility Template®**

<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
(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.	Supported with minor exceptions	<p>The vast majority of features and scenarios in Windows 7 can be used through assistive technologies such as screen-readers and therefore do not require user vision.</p> <p>Windows comes with a basic screen reader called Narrator that will read aloud text that appears on the screen. Windows also has settings for providing audio descriptions for videos and controlling how dialog boxes appear. For more information, see <a href="#">Use the computer without a display</a>.</p> <p>Many other programs and hardware are compatible with Windows and available to help individuals who are blind, including screen readers, Braille output devices, and other useful products. For more information, go to the <a href="#">Microsoft Accessibility website</a>.</p>

		<p>The <a href="#">Windows 7 Magnifier</a> application now supports two new modes of operation – full-screen and lens mode – as well as color inverting and many new features which improve and facilitate the user experience. It should be noted that an Aero-capable machine is needed for full-screen mode.</p> <p>The limitations listed in sections 1194.21(a) and 1194.21(d) may present difficulties for some users depending on their choice of and skills with specific assistive technologies.</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>Supported with minor exceptions</p>	<p>Windows 7 provides numerous features for improving the visibility of user interfaces, such as a built-in magnifier, several high-contrast modes, different themes, several high-DPI modes, different screen resolutions (if supported by the hardware), and additional features from Ease of Access center for changing the size of the cursor, changing the thickness of the focus rectangle, and others.</p> <p>The high-DPI mode specifically has been significantly improved – the feature is easier to discover and understand, switching between different modes now does not require a machine reboot, and the high-DPI modes can now be configured per user.</p> <p>Please reference minor exceptions details in 1194.21.</p>
<p>(c) At least one mode of operation and information</p>	<p>Supported</p>	<p>In Windows 7, all sounds can be turned off without affecting</p>

<p>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>the use of the operating system. Visual notifications or the Sound Sentry feature could alert the user to important information and tell them if sound events have occurred.</p> <p>Windows can replace two types of audio information with visual equivalents. Users can replace system sounds with visual alerts and can display text captions for spoken dialog in multimedia programs. For more information, see <a href="#">Use text or visual alternatives to sounds</a>.</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>Supported</p>	<p>Windows 7 consistently uses icons, graphics, status indicators and other visuals to give feedback to the user and to indicate what actions can be taken next. Sound is not relied upon as the sole means of communicating concepts in the user interface or documentation.</p> <p>Windows can replace two types of audio information with visual equivalents. Users can replace system sounds with visual alerts and you can display text captions for spoken dialog in multimedia programs. For more information, see <a href="#">Use text or visual alternatives to sounds</a>.</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 provided.</p>	<p>Supported</p>	<p>While Windows 7 provides in-box support for speech input, speech is not required in order to use any feature.</p>
<p>(f) At least one mode of operation and information retrieval that does not</p>	<p>Supported with minor exceptions</p>	<p>Windows includes an on-screen keyboard that user can use to type. Users can also</p>

<p>require fine motor control or simultaneous actions and that is operable with limited reach and strength shall be provided.</p>		<p>use speech recognition to control the computer with voice commands, and dictate text into programs. For more information, see <a href="#">Use the computer without the mouse or keyboard.</a></p> <p>Please reference minor exceptions details in 1194.21.</p>
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[Return to the top of the page. http://www.itic.org/Local Settings/Temporary Internet Files/OLK42/VPAT.html](http://www.itic.org/Local Settings/Temporary Internet Files/OLK42/VPAT.html)

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

**VPAT™**

**Voluntary Product Accessibility Template®**

<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
(a) Product support documentation provided to end-users shall be made available in alternate formats upon request, at no additional charge	Supported	Digital user guides are available for download upon request.
(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.	Supported	Available upon request
(c) Support services for products shall accommodate the	Supported	Customer support already accommodates the communication needs of end-users with disabilities.

communication needs of end-users with disabilities.		
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[Return to the top of the page.](#)