

The following Voluntary Product Accessibility information refers to the Mac OS X version 10.3 “Panther” (Mac OS X) operating system. For more information on accessibility features in Mac OS X and to find out about available applications and peripheral devices visit Apple’s accessibility web site at <http://www.apple.com/accessibility>

**Summary Table  
Voluntary Product Accessibility Template**

<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
Section 1194.21 Software Applications and Operating Systems	Please refer to the attached VPAT	
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	Please refer to the attached VPAT	
Section 1194.41 Information, Documentation, and Support	Please refer to the attached VPAT	

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

<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
<p><b>(a)</b> 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><b>Supported with exceptions:</b> Mac OS X provides keyboard access to operating system interface elements. Keyboard access must be enabled in the Keyboard preference panel.</p> <p>Mac OS X provides additional keyboard support features which are beneficial to some users:</p> <ul style="list-style-type: none"> <li>• Sticky Keys, which is designed to allow a series of single key presses to be interpreted as a multiple keystroke combination. Sticky Keys is beneficial for people who have difficulty pressing multiple keys simultaneously.</li> <li>• Slow Keys, which is designed to put a delay between when a key is pressed and when it is accepted by the system. Slow Keys is beneficial for people who may press keys accidentally and often. Click key sounds are also available to provide additional feedback when a key is accepted.</li> <li>• Mouse Keys, which is designed to allow control of the mouse cursor from the keyboard.</li> <li>• Adjustable keyboard repeat delay, which is designed to prevent accidental entry of multiple single keystrokes. The setting is adjustable and can even be set to not repeat.</li> <li>• Customizable keyboard commands which allow a user to assign a keyboard combination to any menu item that</li> </ul>	<p><b>Exceptions:</b> These applications included with Mac OS X are partially keyboard accessible.</p> <ul style="list-style-type: none"> <li>• Activity Monitor</li> <li>• Airport Admin Utility</li> <li>• ColorSync utility</li> <li>• Keychain Access</li> <li>• Startup Disk system preference</li> <li>• iCal</li> <li>• iSync</li> <li>• iMovie</li> <li>• iPhoto</li> <li>• iTunes</li> </ul> <p>The text of an item with keyboard focus is not available through speech feedback. Items are spoken only when the mouse is over them or when the text is selected and the appropriate keyboard combination is</p>

Criteria	Supporting Features	Remarks and explanations
	<p>doesn't already have one assigned or change an existing combination, for a specific application or for the entire system.</p> <ul style="list-style-type: none"> <li>• Double click speed adjustment allows users to customize the finger speed required to double click the mouse.</li> </ul> <p>Applications that adhere to the Mac OS X programming guidelines automatically inherit keyboard support.</p>	<p>pressed.</p> <p>The spoken interface additions to Universal Access in Mac OS X remedy some of these exceptions. Information about the spoken interface technology is available from <a href="http://www.apple.com/accessibility/spokeninterface">http://www.apple.com/accessibility/spokeninterface</a>.</p>
<p><b>(b)</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</p>	<p><b>Supported:</b> Mac OS X provides an accessibility API for applications to interact with assistive technologies. Details of the Accessibility API are available on the Apple Developer web site: <a href="http://developer.apple.com/documentation/Accessibility/Accessibility.html">http://developer.apple.com/documentation/Accessibility/Accessibility.html</a></p> <p>Applications developed using Mac OS X application development guidelines and using operating system provided services inherit the accessibility functionality included in Mac OS X. Applications and devices written in this manner will benefit from the various accessibility features included in Mac OS X and from those delivered by assistive technology developers.</p> <p>Mac OS X uses industry standard peripheral connection ports like USB and Firewire, and includes class device drivers that adhere to the HID specification so input devices developed to these specifications should work without the need for additional driver</p>	

Criteria	Supporting Features	Remarks and explanations
<p>those accessibility features has been documented by the manufacturer of the operating system and is available to the product developer.</p>	<p>software.</p>	
<p><b>(c)</b> 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><b>Supported:</b> Mac OS X exposes the location of the current focus to assistive technologies via the Accessibility API and also provides a visual indication of the focus on-screen.</p>	
<p><b>(d)</b> Sufficient information about a user interface element including the identity, operation and state of the element shall</p>	<p><b>Supported with exceptions:</b> The Mac OS X Accessibility API allows applications to provide information about the identity, operation, and state of elements in applications and in the operating system interface itself.  Mac OS X interface elements provide sufficient information via the</p>	<p><b>Exceptions:</b> The following are examples of interface elements that do not provide sufficient information when using the “speak text under the</p>

Criteria	Supporting Features	Remarks and explanations
<p>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>Accessibility API, with some exceptions.</p> <p>Application developers can learn about how to ensure that their application correctly utilizes the Accessibility API at the Apple Developer Web site:  <a href="http://developer.apple.com/documentation/Accessibility/Accessibility.html">http://developer.apple.com/documentation/Accessibility/Accessibility.html</a></p>	<p>mouse" feature:</p> <ul style="list-style-type: none"> <li>• "Help" button in several preference panels</li> <li>• The current value of a slider control, such as the one in the 'Speech' preference panel, is not available.</li> <li>• Finder windows provide information via the Accessibility API, but the "speak text under mouse" feature does not read text in Finder windows.</li> </ul> <p>The Following applications included with Mac OS X will only speak some text under the mouse but will speak highlighted text.</p> <ul style="list-style-type: none"> <li>• Mail</li> </ul>

Criteria	Supporting Features	Remarks and explanations
		<ul style="list-style-type: none"> <li>• iChat</li> <li>• iTunes</li> <li>• iCal</li> </ul> <p>Note: The spoken interface additions to Universal Access in Mac OS X remedy some of these exceptions. Information about the spoken interface technology is available from <a href="http://www.apple.com/accessibility/spokeninterface">http://www.apple.com/accessibility/spokeninterface</a>.</p>
<p><b>(e)</b> 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><b>Supported:</b> Images used in Mac OS X are used in a consistent manner.</p> <p>Apple's Human Interface Guidelines address this point to guide developers of Mac OS X applications.</p>	
<p><b>(f)</b> Textual information shall be provided through</p>	<p><b>Supported with exceptions:</b> Mac OS X provides information about text content and text input caret via the Accessibility API.</p>	<p><b>Exceptions:</b> Text attributes are not yet supported through the</p>

Criteria	Supporting Features	Remarks and explanations
<p>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>Accessibility API.</p>
<p><b>(g)</b> Applications shall not override user selected contrast and color selections and other individual display attributes.</p>	<p><b>Supported:</b> Mac OS X supports several user preferences to customize the display of the visual interface.</p> <ul style="list-style-type: none"> <li>• Users can switch the display to grayscale to remove all color from the interface.</li> <li>• Users can invert the colors displayed on the screen making white and light colors dark, and making dark colors light.</li> <li>• Users can also utilize the Zoom feature, a built-in screen magnifier, in order to increase the size of the interface and text. (See section 1194.31(b) for more information about Zoom).</li> </ul> <p>All of these features are accessed through the Universal Access system preference and can be used together in different combinations to achieve the desired display effect.</p>	

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<p><b>(h)</b> 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><b>Supported:</b> Animation for opening and closing applications and windows, and animated magnification of dock items can be disabled. The animated progress bar is usually accompanied by text describing the progress of the action.</p>	
<p><b>(i)</b> 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><b>Supported:</b> Mac OS X uses color in multiple ways to convey information but wherever color is used there is an alternative information display that does not rely on color. For example, colored controls are used in the title bar of each Mac OS X window that allow a user to close, minimize or maximize a window. While the color indicates each control's function, each control also has a rollover state that reveals a non-color indication of function.</p>	

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<p><b>(j)</b> 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><b>Supported with exceptions:</b> Mac OS X screen contrast is adjustable by users in the Universal Access control panel.</p> <p>The setting for the text highlight color can be modified using a color palette of millions of colors.</p> <p>Users can create cascading style sheets that can be used to override colors defined by web developers to customize the appearance of web pages.</p>	<p><b>Exceptions:</b> Color settings for buttons, windows, and menus are limited to two colors.</p>
<p><b>(k)</b> 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><b>Supported:</b> Text and interface elements in Mac OS X do not flash or blink in this range.</p>	
<p><b>(l)</b> When electronic forms are used, the form shall allow people using Assistive Technology to access the information, field elements, and</p>	<p><b>Supported with exceptions:</b> Mac OS X form elements provide information for assistive technologies via the Accessibility API.</p>	<p><b>Exceptions:</b> Slider control elements within the Mac OS X interface do not properly utilize the accessibility API The spoken interface additions to Universal</p>

<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
functionality required for completion and submission of the form, including all directions and cues.		Access in Mac OS X remedy some of these exceptions. Information about the spoken interface technology is available from <a href="http://www.apple.com/accessibility/spokeninterface">http://www.apple.com/accessibility/spokeninterface</a> .

**Section 1194.31 Functional Performance Criteria - Detail  
Voluntary Product Accessibility Template**

Criteria	Supporting Features	Remarks and explanations
<p>(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.</p>	<p><b>Supported with exceptions:</b> Mac OS X supports users by providing the following features to operate the computer without vision:</p> <p>Universal Access spoken interface - The spoken interface is a fully integrated, built-in enhancement of the Mac OS X Aqua user interface making it an additional and equal way of accessing the Macintosh. It reads aloud the contents of documents like Web pages, Mail messages, and word processing files; provides a comprehensive audible description of your workspace and all the activities taking place on your computer; and includes a rich set of keyboard commands that allow you to navigate the Mac OS X interface and interact with application and system controls. Unlike traditional screen reader applications that are designed as bolted-on after thoughts, the Mac OS X spoken interface is fully integrated into Mac OS X making this capability available on every Macintosh. It will be included in the next major release of Mac OS X. The advantages are tremendous: No separate installation, wide availability, and one simple set of commands to learn and use.</p> <p>Applications built using the Mac OS X development guidelines and the Mac OS X Accessibility APIs will work with the spoken interface</p>	<p><b>Exceptions:</b> Information about the spoken interface technology is available from <a href="http://www.apple.com/accessibility/spokeninterface">http://www.apple.com/accessibility/spokeninterface</a>. It will be included in the next major release of Mac OS X.</p>

Criteria	Supporting Features	Remarks and explanations
	<p>feature of Universal Access.</p> <p>Keyboard support – Operating without vision requires fully keyboard support. Mac OS X provides access to all functions via the keyboard.</p> <p>Apple Remote Desktop – Mac OS X includes the client software required to have an administrator or helper access a computer remotely over a network. It can be activated in the sharing system preference. This tool can be used to assist users in configuring their computers, or to teach a user how to perform an action. The Apple Remote Desktop software used by the administrator or helper is available separately.</p>	
<p><b>(b)</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</p>	<p><b>Supported:</b> Mac OS X supports users who are visually impaired with Zoom -- a built-in screen magnification feature, and the speak text under the mouse feature. Universal Access Zoom view - With Zoom view users can magnify everything on screen making it larger and easier to see. Text and graphics are enlarged for easier reading and QuickTime video plays magnified without any performance degradation, a capability not available on any other operating system. The powerful Quartz rendering and compositing engine makes Zoom view possible, delivering magnification up to 40x, and sophisticated filtering and anti-aliasing to make text and graphics look good at larger sizes.</p>	

Criteria	Supporting Features	Remarks and explanations
<p>visually impaired shall be provided.</p>	<p>Zoom includes a number of options like the ability to set maximum and minimum values for rapid zooming in and out, a preview rectangle that outlines the portion of the screen that will be magnified, and the ability to customize how the screen moves as you navigate with the mouse pointer.</p> <p>Visually impaired users who wish to use the mouse can also use the speak text under the mouse feature to voice information that is under the mouse pointer in addition to using the zoom feature.</p>	
<p><b>(c)</b> 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><b>Supported:</b></p> <p>Flash Screen - Mac OS X provides visual indication of alert sounds via the Flash Screen feature. When Mac OS X emits a sound to alert the user, it will also flash the screen once.</p> <p>iChat AV - iChat AV is the first desktop computer video conferencing solution with performance and clarity good enough for you to communicate using sign language over the Internet. It produces high quality video good enough to clearly see the finger and hand movements of the person with whom your communicating, giving you the technology to communicate from afar with the same range of emotion you use in person.</p> <p>QuickTime – QuickTime video or audio files can include an</p>	

Criteria	Supporting Features	Remarks and explanations
	auxiliary text track for close captioning.	
<p><b>(d)</b> 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><b>Not Applicable:</b> Audio is not required for operation of Mac OS X.</p>	
<p><b>(e)</b> 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><b>Not Applicable</b> Apple provides speech functionality as a benefit to users who prefer to speak commands rather than type. This is available in addition to keyboard and/or mouse input but is not required to perform any action.</p>	

Criteria	Supporting Features	Remarks and explanations
<p>(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.</p>	<p><b>Supported:</b> Mac OS X provides the following features to assist users who do not have fine motor control or can't perform simultaneous actions easily:</p> <ul style="list-style-type: none"> <li>• Sticky Keys, which is designed to allow a series of single key presses to be interpreted as a multiple keystroke combination. Sticky Keys is beneficial for people who have difficulty pressing multiple keys simultaneously.</li> <li>• Slow Keys, which is designed to put a delay between when a key is pressed and when it is accepted by the system. Slow Keys is beneficial for people who may press keys accidentally and often. Click key sounds are also available to provide additional feedback when a key is accepted.</li> <li>• Adjustable keyboard repeat delay, which is designed to prevent accidental entry of multiple single keystrokes.</li> <li>• Customizable keyboard commands allow a user to assign a keyboard combination to any menu item that doesn't already have one assigned or change an existing combination, for a specific application or for the entire system.</li> <li>• Double click speed adjustment allows users to customize the finger speed required to double click the mouse.</li> <li>• Speech commands are available for a limited set of actions.</li> <li>• Mac OS X supports many specialized input devices. For more information visit <a href="http://www.apple.com/accessibility/physical">http://www.apple.com/accessibility/physical</a></li> </ul>	

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

<p><b>(a)</b> Product Support Documentation</p>	<p><b>Supported:</b></p>	<p>All Mac OS X documentation is available on line through the Apple Knowledge Base <a href="http://www.apple.com/support">http://www.apple.com/support</a> and from the Mac OS X product page at <a href="http://www.apple.com/macosx">http://www.apple.com/macosx</a> .</p> <p>The Mac OS X help system also provides information on how to use various Universal Access features.</p>
<p><b>(b)</b> Accessibility and Compatibility Features</p>	<p><b>Supported:</b></p>	<p>All Mac OS X documentation is available on line through the Apple Knowledge Base <a href="http://www.apple.com/support">http://www.apple.com/support</a> and from the Mac OS X product page at <a href="http://www.apple.com/macosx">http://www.apple.com/macosx</a> .</p> <p>The Mac OS X help system also provides information on how to use various Universal Access features.</p>

1194.41 (c) Support Services	<b>Supported:</b>	Web support is available through the Apple Knowledge base at <a href="http://www.apple.com/support">http://www.apple.com/support</a>  Apple can assist customers using TDD.  For additional information on the many service and support options offered by Apple visit the support web site.
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