WORKING WITH AUTODESK 3DS MAX DESIGN 2010 AND SECTION 508

Section 508 requires that federal agencies' electronic and information technology is accessible to people with disabilities. The Center for Information Technology Accommodation (CITA), in the U.S. General Services Administration's Office of Government-wide Policy, has been charged with the task of educating federal employees and building the infrastructure necessary to support Section 508 implementation.

With this white paper, Autodesk offers background information to help our customers understand the accessibility features of Autodesk® 3ds Max® Design 2010 software, in the context of the Section 508 standards. This was done with the intent to enable agencies to be compliant with the Section 508 regulations.

The document contains subsets of the Electronic and Information Technology Accessibility Standards as published in 36 CFR Part 1194 and provides an analysis of Autodesk® 3ds Max® Design 2010 as compared to these standards.

For the purposes of this paper, "3ds Max" refers to Autodesk 3ds Max Design 2010 for 32-bit and 64-bit versions of Microsoft® Windows Vista™ and Windows® XP operating systems.

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.

This document is not intended to be a certification of compliance. This template is based upon version 1.2 (5/6/2004) supplied by the U.S. Government.

More information on Section 508 can be found on the Government's website located at: http://www.section508.gov/

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Summary Table

CRITERIA	SUPPORTING FEATURES	SUPPORTING FEATURES
Section 1194.21 Software Applications and Operating Systems		Completed
Section 1194.21 Web-based Internet Information and Applications		N/A
Section 1194.23 Telecommunications Products		N/A
Section 1194.24 Video and Multi-media Products		N/A
Section 1194.25 Self-Contained, Closed Products		N/A
Section 1194.26 Desktop and Portable Computers		N/A
Section 1194.31 Functional Performance Criteria		Completed
Section 1194.41 Information, Documentation and Support		Completed

Section 1194.21

Software Applications and Operating Systems

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.	Supported with exceptions.	Keyboard navigation is provided for most Menu commands. Also, a Command Line allows the user to type in commands and other input.
(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.	Supported with exceptions.	3ds Max does not generally disrupt or disable the accessibility features of the Windows® operating system. The Narrator does not work for all controls in the 3ds Max interface, for example icon buttons. Users can use the equivalent menu items, via the Narrator. 3ds Max does not support the use of large fonts in most of the interface.
(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.	Supported with exceptions.	Focus is indicated by a yellow outline in the window pane. There is no programmatic means to change the focus.
(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.	Supported with exceptions.	3ds Max provides information to the user via the Microsoft® Active Accessibility Application. Not all UI controls are accessible via the Narrator tool.
(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.	Supported.	Bitmap images and actions associated with them are consistent.
(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.	Supported.	A text window records the log of what is being done. Also, this log file can be saved.

(g) Applications shall not override user selected contrast and color selections and other individual display attributes.	Supported.	The 3ds Max application does not override contrast and color selections. The application performs acceptably under High Contrast settings. Also, the user has the ability to change color settings.
(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.	Supported with exceptions.	Animation is created by the 3ds Max application, and this has no equivalent means of viewing. There is no animation in the interface controls. Animated displays are included within the 3ds Max Help System. The same information is documented with text and images.
(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.	Supported with exceptions.	Color-coding is not generally used as the only means of conveying information. The selection list however is color-coded, and some editors use color information to indicate animated channels and other status information.
(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.	Supported.	3ds Max provides a wide variety of color selections. The user has the ability to customize the application window.
(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.	Supported.	3ds Max does not use flashing or blinking text.
(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.	Supported with exceptions.	Microsoft Active Accessibility applications like the Narrator can be used to access particulars of the components of a form/dialog box.

Section 1194.31

Functional Performance Criteria

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 for Assistive Technology used by people who are blind or visually impaired shall be provided.	Supported with exceptions.	Microsoft Active Accessibility applications like the Narrator can be used to access particulars of the components of a form/dialog box. Some interface controls such as 3d manipulators and 2d graphical widgets in some editors are not accessible via the Narrator.
(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.	Supported with exceptions.	Keyboard navigation is provided for most Menu commands. Assistive Technology like the Magnifier can be used to provide enlarged print output.
(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.	Supported with one exception.	Audio is used in one feature of 3ds Max which allows the user to work with a soundtrack for animation. For all other features, 3ds Max does not require user hearing in order to operate the software.
(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.	Supported with one exception.	With the exception of the soundtrack feature, 3ds Max does not require user hearing to operate the software.
(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.	Supported	3ds Max does not require user speech in order to operate the software.
(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.	Supported with exceptions.	Keyboard navigation is provided for most menu commands in 3ds Max. In addition, the software can be customized to enhance access to particular functions, for example with larger controls.

Section 1194.41

Information, Documentation and Support

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.		Support documentation is available, in electronic format only, on the 3ds Max DVD and on the Autodesk website 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.		This document is posted on the Autodesk website at http://www.autodesk.com . Search for "Section 508".
(c) Support services for products shall accommodate the communication needs of end-users with disabilities.		Support services options are available via webpage, e-mail, fax, or phone. Direct, in-person support is available through resellers.

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