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Name of Product: KDE version 3.4.1

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The K Desktop Environment (KDE) is not a single software product. Rather, KDE provides a common infrastructure for all KDE applications. As long as applications use the KDE libraries, and adhere to the KDE Human Interface Guidelines and other KDE standards, they provide a consistent accessible interface and functionality. From the K Control Center, users can control the appearance, coloring, sizing, keyboard shortcuts, mouse/pointer behavior and other functionality of all KDE applications and components. See http://www.kde.org/ for more information.

This document is a voluntary self-assessment of the Section 508 accessibility features of the KDE libraries and base applications, such as the Konqueror web browser. It assumes the KDE version 3.4.1 libraries (kdelibs), base components (kdebase), and kdeaccessibility module have been installed. See http://accessibility.kde.org/ for more information.

KDE 3.4.1 is based upon the Qt 3.3.4 library and therefore inherits all the accessibility features of that library. For more information, visit http://www.trolltech.com/.

Summary Table **Voluntary Product Accessibility Template**		
Criteria	**Supporting Features**	**Remarks and Explanations**
Section 1194.21 Software and Operating Systems	See the detailed table	
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	See the detailed table	
Section 1194.41 Information, Documentation and Support	See the detailed table	

Section 1194.21 Software Applications and Operating Systems - Detail Voluntary Product Accessibility Template		
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.	Supports	KDE/Qt standard widgets, dialogs, and applications support their operation from a keyboard. KDE/Qt also offers users a means for navigating widget focus from a keyboard, assigning keyboard shortcuts to application functions, etc.[1] All applications using the standard KApplication component automatically include this functionality. When necessary, programmers may extend functionality in custom widgets inheriting them.
(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.	Supports	Accessibility features of other products and the operating system are not disrupted. Additionally, global KDE/Qt accessibility settings and features (keyboard accessibility, color schemes, font settings) work with KDE/Qt widgets.

1 One exception is toolbars. Toolbars are not accessible using the keyboard. However, all KDE applications are required to provide an alternative means of invoking functions available in a toolbar, for example, via the main menu.

Section 1194.21 Software Applications and Operating Systems - Detail Voluntary Product Accessibility Template		
(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.	Supports with Exceptions	All KDE/Qt standard widgets indicate their focus by drawing a thin border around themselves or by highlighting themselves (input elements). KDE/Qt also offers means for handling the focus in custom widgets. KDE/Qt contains a programmatic interface for providing the focus information to Assistive Technologies. An experimental bridge to the AT-SPI[2] is available. This functionality will become standard in future versions of KDE.
(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.	Supports with Exceptions	An experimental bridge to the AT-SPI[2] is available. This functionality will become standard in future versions of KDE.
(e) When bitmap images are used to dentify controls, status indicators, or other programmatic elements, the meaning assigned to those images shall be consistent throughout an application's performance.	Supports	Suites of standard icons and bitmap images are available to KDE applications. Programmers reference standard actions, such as cut, copy, and paste by generic name. Users may pick from several color and sizing sets and apply to all KDE applications. Monochrome and low-color/high-contrast sets for low-sighted users are available.

2 AT-SPI (Assistive Technologies Service Provider Interface) is an interprocess communication protocol that allows assistive technologies to access all of the graphical user interfaces of an application, abstracting from toolkit dependent GUI objects. It was developed by the GNOME Accessibility Project, but it is based on CORBA and was written as a toolkit-independent protocol that is also used by Mozilla, OpenOffice and Java. Future versions of KDE will eliminate the requirement for CORBA. The experimental bridge is available at http://trolls.troll.no/~harald/accessibility/index.html.

Section 1194.21 Software Applications and Operating Systems - Detail Voluntary Product Accessibility Template		
(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 via Equivalent Facilitation (1194.5)	The KDE/Qt libraries use their own low-level routines for rendering text. Using the experimental bridge to the AT-SPI[2], assistive technologies can gain access to textual information.
(g) Applications shall not override user selected contrast and color selections and other individual display attributes.	Supports	The K Control Center provides a means for users to set desired color/contrast, sizing, and positioning attributes for all KDE applications.[3]
(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.	Supports	KDE/Qt standard widgets do not use animations for presenting information with the exception of progress bars, which display information in text as well.
(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.	Supports	
(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.	Supports	The K Control Center provides several sets of standard color and contrasts. In addition, colors may be adjusted to any desired color.
(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.	Supports	KDE/Qt standard widgets do not utilize flashing nor blinking except for the text input cursor, which blinks with the frequency 1 Hz by default.

3 There are a few cases where applications override KDE global settings. For example, when viewing a secure website, the Konqueror web browser displays the location URL with a yellow background. In most cases, users may control application-specific settings from the application's configuration dialog. Future versions of KDE will provide global options for controlling these.

Section 1194.21 Software Applications and Operating Systems - Detail Voluntary Product Accessibility Template		
(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.	Not Applicable	

Section 1194.31 Functional Performance Criteria - Detail Voluntary Product Accessibility Template		
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.	Partially Supported	An experimental bridge to the AT-SPI[2] is available. This functionality will become standard in future versions of KDE. In addition, the KDE Text-to-Speech component provides TTS output for web pages, portions of PDF documents, and any text that can be copied into the system clipboard.
(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.	Supports	Standard KDE/Qt widgets support font enlargement and variable icon sizes. The KMagnifier application permits enlargement of any portion of the screen. The aRts component provides audio capability for all KDE applications. KDE/Qt interface to Assistive Technologies is explained in (a).
(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.	Supports	Except for applications whose function is primarily audio output (such as amaroK), KDE may be operated without any audio device. Alerts and notifications may be presented visually or via audio using the KNotify module. It is also possible to execute applications to present notifications using assistive technologies. A visual bell capability is provided. [4]
(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.	Not Applicable	See (c).

4 KDE version 3.5 also provides the ability to present alerts and notifications using Text-to-Speech.

Section 1194.31 Functional Performance Criteria - Detail Voluntary Product Accessibility Template		
(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.	Supports	The KMouth and KTTS applications may be used to synthesize speech for speech-impaired users.
(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	The K Control Center provides ability to customize keyboard shortcuts. Keyboard accessibility features, such as sticky keys, slow keys, bounce keys, and gestures work with KDE/Qt. KHotKeys permits multiple operations using a single key or mouse gesture. The KMouseTool clicks the mouse for users.[5]

5 KDE 3.5 will include the ability to invoke hotkey functions using speech input commands.

Section 1194.41 Information, Documentation and Support - Detail Voluntary Product Accessibility Template		
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.	Supports	KDE documentation is provided in industry-standard DocBook format. Free tools are available for converting DocBook to a wide variety of formats, including plain text, PDF, and HTML.
(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.	Supports	See (a).
(c) Support services for products shall accommodate the communication needs of end-users with disabilities.	Not applicable	The KDE project does not provide formal support services. This is left to the various distributors. Informal support is available via e-mail, web sites, and Internet Relay Chat (IRC).