TeXLive Accessibility Conformance Report
(International Edition)
(Based upon VPAT® version 2.4)

TeX Users Group

Version 2.1, June 2022

Contents

Name of Product/Version

TeXLive 2022.

Report Date

June 2022.

Product Description

TeXLive is the reference distribution of TeX and related software supported by TeX Users Group, a membership-based not-for-profit organization dedicated to support, promotion and advocacy of TeX typesetting system created by Donald Knuth and maintained by the international community of developers. As of 2022 TeXLive contains more than 470 programs and more than 7600 software packages.

Contact Information

Website: https://tug.org

Address:

> Robin Laakso, executive director,
> TeX Users Group,
> PO Box 2311,
> Portland, OR 97208-2311,
> USA

Phone: +1 503-223-9994

Fax: +1 815-301-3568

Administrative email: office@tug.org

Board of directors: board@tug.org

President: president@tug.org

Notes

TeXLive is a complex software suite, intended to the produce typeset products in various formats (PDF, HTML, DVI, XML to name a few). In all case it takes an *input code* written in a machine-readable form and translates it to an *output format,* suitable to publication in the traditional (hard copy) or electronic form.

This document covers only the software used to convert the input code to the output format. The creation of the input code is outside the scope of this document, since it is done by third party software. TeXLive software can accept as input text files created in any authoring tool. TeX Users group is aware about fully accessible authoring tools, and promotes them on its web pages and publications.

A separate issue is the accessibility of the *output documents* created with TeXLive software. The accessibility features of these documents depend on the settings in the input code and the packages used, and thus is not covered by this document. TeX Users Group strives to make the creation of full accessible documents using its tool as simple as possible, and to make the accessibility features the default settings of our software. This is an ongoing effort, involving many developers. TeX Users Group welcomes any help in this work.

The tools provided by TeXLive are accompanied by technical documentation, both included in TeXLive itself, and separate: there are many books, courses and other materials about TeX. Many of the latter a fully accessible. The main documentation of TeXLive, supported by TeXLive team, is accessible as well. Most of the documentation for several thousand software packages in TeXLive is provided in PDF or text format. By requiring machine readable textual sources of all documentation provided by TeXLive packages, we ensure a certain level of accessibility for all documentation. However, the full audit of the documentation for all 7300+ packages created by many thousands of volunteers is not feasible at this time. TeX Users group supports the efforts of making all TeX documentation fully accessible.

Evaluation methods used

The testing was based on the knowledge of the general product knowledge.

Applicable standards and guidelines

Standard/Guideline	Included in the report
Web Content Accessibility Guidelines 2.0	Level A (Yes)
	Level AA (Yes)
	Level AAA (Yes)
Web Content Accessibility Guidelines 2.1	Level A (Yes)
	Level AA (Yes)
	Level AAA (Yes)
Revised Section 508 standards published January 18, 2017 and corrected January 22, 2018	Yes
EN 301 549 Accessibility requirements suitable for public procurement of ICT products and services in Europe, - V3.1.1 (2019-11)	Yes

Terms

The terms used in the Conformance Level information are defined as follows:

Supports: The functionality of the product has at least one method that meets the criterion without known defects or meets with equivalent facilitation.

Partially Supports: Some functionality of the product does not meet the criterion.

Does Not Support: The majority of product functionality does not meet the criterion.

Not Applicable: The criterion is not relevant to the product.

Not Evaluated: The product has not been evaluated against the criterion. This can be used only in WCAG 2.0 Level AAA.

WCAG 2.x Report

Tables 1 and 2 also document conformance with:

- EN 301 549: Chapter 9 - Web, Sections 10.1-10.4 of Chapter 10 - Non-Web documents, and Sections 11.1-11.4 and 11.8.2 of Chapter 11 - Non-Web Software (open and closed functionality), and Sections 12.1.2 and 12.2.4 of Chapter 12 – Documentation

- Revised Section 508: Chapter 5 – 501.1 Scope, 504.2 Content Creation or Editing, and Chapter 6 – 602.3 Electronic Support Documentation.

Note: When reporting on conformance with the WCAG 2.x Success Criteria, they are scoped for full pages, complete processes, and accessibility-supported ways of using technology as documented in the WCAG 2.0 Conformance Requirements.

Introduction

This section of the report describes the documentation for TEXLive.

There are several ways to define "the full documentation for TEX and friends software". In one meaning of these words it comprises all books on TEX, LATEX, ConTEXt and other systems included in TEXLive, all issues of the journals published by TEX Users Group and other users produced documentation. Of course it would be impossible to estimate the accessibility of all this documentation, comprising hundreds thousands of pages written over three decades.

Another way is to count only the documentation for the packages included in TEXLive. This includes documentation for 7300+ packages, which makes the full audit rather impractical.

In this document we discuss only the main manual for the system, available with the installation and at https://tug.org/texlive/doc/texlive-en/texlive-en.html. We note, however, that documentation for all TEXLive packages is available as source text files, and thus is highly accessible.

In the tables below the success criteria apply to *Web* and *Electronic Docs* paragraphs of VPAT.

Table 1: Success Criteria, Level A

Criteria	Conformance Level	Remarks and Explanations
1.1.1 Non-text Content (Level A)	Supports	
1.2.1 Audio-only and Video only (Prerecorded) (Level A)	Not Applicable	
1.2.2 Captions Prerecorded (Level A)	Not Applicable	
1.2.3 Audio Description or Media Alternative (Prerecorded)	Not Applicable	
1.3.1 Info and Relationships (Level A)	Supports	
1.3.2 Meaningful Sequence (Level A)	Supports	
1.3.3 Sensory Characteristics (Level A)	Not Applicable	
1.4.1 Use of Color (Level A)	Supports	
1.4.2 Audio Control (Level A)	Not Applicable	
2.1.1 Keyboard (Level A)	Supports	
2.1.2 No Keyboard Trap (Level A)	Supports	
2.1.4 Character Key Shortcuts (Level A 2.1 only)	Supports	
2.2.1 Timing Adjustable	Supports	
2.2.2 Pause, Stop, Hide (Level A)	Supports	
2.3.1 Three Flashes or Below Threshold (Level A)	Supports	
2.4.1 Bypass Blocks	Not Applicable	
2.4.2 Page Titled (Level A)	Supports	
2.4.3 Focus Order (Level A)	Supports	
2.4.4 Link Purpose (In Context) (Level A)	Supports	
2.5.1 Pointer Gestures (Level A 2.1 only)	Supports	
2.5.2 Pointer Cancellation (Level A 2.1 only)	Supports	
2.5.3 Label in Name (Level A 2.1 only)	Supports	
2.5.4 Motion Actuation (Level A 2.1 only)	Supports	
3.1.1 Language of Page	Supports	
3.2.1 On Focus (Level A)	Supports	
3.2.2 On Input (Level A)	Supports	
3.3.1 Error Identification (Level A)	Supports	
3.3.2 Labels or Instructions (Level A)	Supports	
4.1.1 Parsing (Level A)	Supports	
4.1.2 Name, Role, Value (Level A)	Supports	

Table 2: Success Criteria, Level AA

Criteria	Conformance Level	Remarks and Explanations
1.2.4 Captions (Live) (Level AA)	Not Applicable	
1.2.5 Audio Description (Prerecorded) (Level AA)	Not Applicable	
1.3.4 Orientation (Level AA 2.1 only)	Supports	
1.3.5 Identify Input Purpose (Level AA 2.1 only)	Supports	
1.4.3 Contrast (Minimum) (Level AA)	Supports	
1.4.4 Resize text (Level AA)	Supports	
1.4.5 Images of Text (Level AA)	Supports	
1.4.10 Reflow (Level AA 2.1 only)	Supports	
1.4.11 Non-text Contrast (Level AA 2.1 only)	Supports	
1.4.12 Text Spacing (Level AA 2.1 only)	Supports	
1.4.12 Text Spacing (Level AA 2.1 only)	Supports	
1.4.13 Content on Hover or Focus (Level AA 2.1 only)	Supports	
2.4.5 Multiple Ways (Level AA)	Supports	
2.4.6 Headings and Labels (Level AA)	Supports	
2.4.7 Focus Visible (Level AA)	Supports	
3.1.2 Language of Parts (Level AA)	Supports	
3.2.3 Consistent Navigation (Level AA)	Supports	
3.2.4 Consistent Identification (Level AA)	Supports	
3.3.3 Error Suggestion (Level AA)	Not Applicable	
3.3.4 Error Prevention (Legal, Financial, Data) (Level AA)	Not Applicable	
4.1.3 Status Messages (Level AA 2.1 only)	Supports	

Table 3: Success Criteria, Level AAA

Criteria	Conformance Level	Remarks and Explanations
1.2.6 Sign Language (Prerecorded) (Level AAA)	Not Applicable	
1.2.7 Extended Audio Description (Prerecorded) (Level AAA)	Not Applicable	
1.2.8 Media Alternative (Prerecorded) (Level AAA)	Not Applicable	
1.2.9 Audio-only (Live) (Level AAA)	Not Applicable	
1.3.6 Identify Purpose (Level AAA 2.1 only)	Supports	
1.4.6 Contrast (Enhanced) (Level AAA)	Supprts	

Criteria	Conformance Level	Remarks and Explanations
1.4.7 Low or No Background Audio (Level AAA)	Supports	
1.4.8 Visual Presentation (Level AAA)	Supports	
1.4.9 Images of Text (No Exception) (Level AAA)	Supports	Images of GUI screens are used only when essential to the information being conveyed.
2.1.3 Keyboard (No Exception) (Level AAA)	Supports	
2.2.3 No Timing (Level AAA)	Supports	
2.2.4 Interruptions (Level AAA)	Supports	
2.2.5 Re-authenticating (Level AAA)	Not Applicable	
2.2.6 Timeouts (Level AAA 2.1 only)	Not Applicable	
2.3.2 Three Flashes (Level AAA)	Supports	
2.3.3 Animation from Interactions (Level AAA 2.1 only)	Supports	
2.4.8 Location (Level AAA)	Supports	
2.4.9 Link Purpose (Link Only) (Level AAA)	Supports	
2.4.10 Section Headings (Level AAA)	Supports	
2.5.5 Target Size (Level AAA 2.1 only)	Supports	
2.5.6 Concurrent Input Mechanisms (Level AAA 2.1 only)	Supports	
3.1.3 Unusual Words (Level AAA)	Does Not Support	
3.1.4 Abbreviations (Level AAA)	Does Not Support	
3.1.5 Reading Level (Level AAA)	Does Not Support	
3.1.6 Pronunciation (Level AAA)	Not Applicable	
3.2.5 Change on Request (Level AAA)	Supports	
3.3.5 Help (Level AAA)	Does Not Support	
3.3.6 Error Prevention (All) (Level AAA)	Not Applicable	

Note: Neither Revised Section 508 Report nor EN 301 549 Report requiure AAA level compliance.

Revised Section 508 Report

Chapter 3: Functional Performance Criteria (FPC)

Criteria	Conformance Level	Remarks and Explanations
302.1 Without Vision	Supports	
302.2 With Limited Vision	Supports	
302.3 Without Perception of Color	Supports	
302.4 Without Hearing	Supports	
302.5 With Limited Hearing	Supports	
302.6 Without Speech	Supports	
302.7 With Limited Manipulation	Supports	
302.8 With Limited Reach and Strength	Supports	
302.9 With Limited Language, Cognitive, and Learning Abilities	Does Not Support	

Chapter 4: Hardware

Does Not Apply.

Chapter 5: Software

Criteria	Conformance Level	Remarks and Explanations
501.1 Scope—Incorporation of WCAG 2.0 AA	Supports	See Table 2: Success Criteria, Level AA
502 Interoperability with Assistive Technology		
502.2.1 User Control of Accessibility Features	Supports	
502.2.2 No Disruption of Accessibility Features	Supports	
502.3 Accessibility Services		
502.3.1 Object Information	Supports	
502.3.2 Modification of Object Information	Supports	
502.3.3 Row, Column, and Headers	Not Applicable	
502.3.4 Values	Supports	
502.3.5 Modification of Values	Supports	
502.3.6 Label Relationships	Not Applicable	
502.3.7 Hierarchical Relationships	Not Applicable	

Criteria	Conformance Level	Remarks and Explanations
502.3.8 Text	Supports	
502.3.9 Modification of Text	Supports	
502.3.10 List of Actions	Supports	
502.3.11 Actions on Objects	Supports	
502.3.12 Focus Cursor	Supports	
502.3.13 Modification of Focus Cursor	Supports	
502.3.14 Event Notification	Supports	
502.4 Platform Accessibility Features	Supports	
503 Applications		
503.2 User Preferences	Supports	
503.3 Alternative User Interfaces	Supports	
503.4 User Controls for Captions and Audio Description	Not Applicable	
503.4.1 Caption Controls	Not applicable	
503.4.2 Audio Description Controls	Not Applicalbe	
504 Authoring Tools		
504.2 Content Creation or Editing (if not authoring tool, enter "not applicable")	Not Applicable	
504.2.1 Preservation of Information Provided for Accessibility in Format Conversion	Not Applicable	
504.2.2 PDF Export	Not Applicable	
504.3 Prompts	Not Applicable	
504.4 Templates	Not Applicable	

Chapter 6: Support Documentation and Services

Criteria	Conformance Level	Remarks and Explanations
601.1 Scope		
602 Support Documentation		
602.2 Accessibility and Compatibility Features	Supports	
602.3 Electronic Support Documentation	Supports	See WCAG 2.x Report
602.4 Alternate Formats for Non-Electronic Support Documentation	Not Applicable	
603 Support Services		
603.2 Information on Accessibility and Compatibility Features	Not Applicable	

Criteria	Conformance Level	Remarks and Explanations
603.3 Accommodation of Communication Needs	Not Applicable	

EN 301 549 Report

Chapter 4: Functional Performance Statements (FPS)

Criteria	Conformance Level	Remarks and Explanations
4.2.1 Usage without vision	Supports	
4.2.2 Usage with limited vision	Supports	
4.2.3 Usage without perception of colour	Supports	
4.2.4 Usage without hearing	Supports	
4.2.5 Usage with limited hearing	Supports	
4.2.6 Usage with no or limited vocal capability	Supports	
4.2.7 Usage with limited manipulation or strength	Supports	
4.2.8 Usage with limited reach	Supports	
4.2.9 Minimize photosensitive seizure triggers	Supports	
4.2.10 Usage with limited cognition, language or learning	Does not support	
4.2.11 Privacy	Supports	

Chapter 5: Generic Requirements

Note: EN 301 549 defines "closed functionality" as "functionality that is limited by characteristics that prevent a user from attaching, installing or using assistive technology". Since TEXLive utilities do not prevent users from attaching, installing or using assistive technology, most of requirements in this chapter are not applicable to them.

Criteria	Conformance Level	Remarks and Explanations
5.1 Closed functionality		
5.1.2 General		
5.1.2.1 Closed functionality	Not Applicable	
5.1.2.2 Assistive technology	Not Applicable	
5.1.3 Non-visual access		
5.1.3.1 Audio output of visual information	Not Applicable	
5.1.3.2 Auditory output delivery including speech	Not Applicable	
5.1.3.3 Auditory output correlation	Not Applicable	
5.1.3.4 Speech output user control	Not Applicable	

Criteria	Conformance Level	Remarks and Explanations
5.1.3.5 Speech output automatic interruption	Not Applicable	
5.1.3.6 Speech output for non-text content	Not Applicable	
5.1.3.7 Speech output for video information	Not Applicable	
5.1.3.8 Masked entry	Not Applicable	
5.1.3.9 Private access to personal data	Not Applicable	
5.1.3.10 Non-interfering audio output	Not Applicable	
5.1.3.11 Private listening volume	Not Applicable	
5.1.3.12 Speaker volume	Not Applicable	
5.1.3.13 Volume reset	Not Applicable	
5.1.3.14 Spoken languages	Not Applicable	
5.1.3.15 Non-visual error identification	Not Applicable	
5.1.3.16 Receipts, tickets, and transactional outputs	Not Applicable	
5.1.4 Functionality closed to text enlargement	Not Applicable	
5.1.5 Visual output for auditory information	Not Applicable	
5.1.6 Operation without keyboard interface		
5.1.6.2 Input focus	Not Applicable	
5.1.7 Access without speech	Not Applicable	
5.2 Activation of accessibility features	Not Applicable	
5.3 Biometrics	Not Applicable	
5.4 Preservation of accessibility information during conversion	Not Applicable	
5.5 Operable parts		
5.5.1 Means of operation	Not Applicable	
5.5.2 Operable parts discernibility	Not Applicable	
5.6 Locking or toggle controls		
5.6.1 Tactile or auditory status	Not Applicable	
5.6.2 Visual status	Not Applicable	
5.7 Key repeat	Not Applicable	
5.8 Double-strike key acceptance	Not Applicable	
5.9 Simultaneous user actions	Not Applicable	

Chapter 6: ICT with Two-Way Voice Communication

Not Applicable.

Chapter 7: ICT with Video Capabilities

Not Applicable.

Chapter 8: Hardware

Not Applicable.

Chapter 9: Web

See WCAG 2.x Report.

Chapter 10: Non-Web Software

Criteria	Conformance Level	Remarks and Explanations
10.0 General (informative)		
10.1.1.1 through 10.4.1.3	Supports	See WCAG 2.x Report
10.5 Caption positioning	Not Appicable	
10.6 Audio description timing	Not Applicable	

Chapter 11: Software

Criteria	Conformance Level	Remarks and Explanations
11.0 General (informative)		
11.1.1.1 through 11.4.1.3	Supports	See WCAG 2.x Report
11.5 Interoperability with assistive technology		
11.5.1 Closed functionality		
11.5.2 Accessibility services		
11.5.2.1 Platform accessibility service support for software that provides a user interface	Supports	See information in 11.5.2.5 through 11.5.2.17
11.5.2.2 Platform accessibility service support for assistive technologies	Supports	See information in 11.5.2.5 through 11.5.2.17

Criteria	Conformance Level	Remarks and Explanations
11.5.2.3 Use of accessibility services	Not Applicable	
11.5.2.4 Assistive technology	Not Applicable	
11.5.2.5 Object information	Not Applicable	
11.5.2.6 Row, column, and headers	Not Applicable	
11.5.2.7 Values	Not Applicable	
11.5.2.8 Label relationships	Not Applicable	
11.5.2.9 Parent-child relationships	Not Applicable	
11.5.2.10 Text	Supports	
11.5.2.11 List of available actions	Supports	
11.5.2.12 Execution of available actions	Supports	
11.5.2.13 Tracking of focus and selection attributes	Not Applicable	
11.5.2.14 Modification of focus and selection attributes	Not Applicable	
11.5.2.15 Change notification	Supports	
11.5.2.16 Modifications of states and properties	Supports	
11.5.2.17 Modifications of values and text	Supports	
11.6 Documented accessibility usage		
11.6.1 User control of accessibility features	Not Applicable	
11.6.2 No disruption of accessibility features	Supports	
11.7 User preferences	Not Applicable	
11.8 Authoring tools		
11.8.1 Content technology		
11.8.2 Accessible content creation	Not Applicable	
11.8.3 Preservation of accessibility information in transformations	Not Applicable	
11.8.4 Repair assistance	Not Applicable	
11.8.5 Templates	Not Applicable	

Chapter 12: Documentation and Support Services

Criteria	Conformance Level	Remarks and Explanations
12.1 Product documentation		
12.1.1 Accessibility and compatibility features	Not Applicable	
12.1.2 Accessible documentation	Supports	See WCAG 2.x Report

Criteria	Conformance Level	Remarks and Explanations
12.2 Support Services		
12.2.2 Information on accessibility and compatibility features	Not Applicable	
12.2.3 Effective communication	Not Applicable	
12.2.4 Accessible documentation	Not Applicable	

Chapter 13: ICT Providing Relay or Emergency Service Access

Not Applicable.

Legal Disclaimer

While all efforts were made to provide an accurate description of the software, T_EX Users Group cannot make any guarantee, explicit of implied, of the accuracy of this report. This report is provided "As Is" and for information purposes only.