

# SPIE Accessibility Conformance Report

## WCAG 2.1 Edition

(Based on VPAT® Version 2.4)

**Name of Product/Version:** SPIE Digital Library v3

**Report Date:** August 28, 2024

**Product Description:** The SPIE Digital Library is the world's largest collection of optics and photonics applied research, with more than 634,678 papers spanning biomedicine, communications, sensors, defense and security, manufacturing, electronics, energy, and imaging.

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**Evaluation Methods Used:** All criteria evaluated through broad product knowledge and testing by professional staff. No automated testing was conducted for this version 2.4 report.

## Applicable Standards/Guidelines

This report covers the degree of conformance for the following accessibility standard/guidelines:

Standard/Guideline	Included In Report
<u>Web Content Accessibility Guidelines 2.0</u>	Level A (Yes) Level AA (Yes) Level AAA (No)
<u>Web Content Accessibility Guidelines 2.1</u>	Level A (Yes) Level AA (Yes) Level AAA (No)

## 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.
- **N/A:** 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 2.0/1 Level AAA.

## WCAG 2.1 Report

Note: When reporting on conformance with the WCAG 2.1 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.

**Table 1: Success Criteria, Level A**

Notes:

Criteria	Conformance Level	Remarks and Explanations
<b><u>1.1.1 Non-text Content</u></b> (Level A)	Web: Supports Electronic Docs: Supports Software: N/A Authoring Tool: N/A	Web: All content figures and tables are accompanied by explanatory captions. Time-based media have either explanatory captions (for short integrated video figures) or full-text transcripts (for full-length presentations). Currently all but 1% of full-length presentations have full-text transcripts, the remaining 1% have attributes which prevent complete transcription (sound quality, etc.) Electronic Docs: PDF formatted papers include explanatory captions for all figures and tables.
<b><u>1.2.1 Audio-only and Video-only (Prerecorded)</u></b> (Level A)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: Time-based media have either explanatory captions (for short integrated video figures) or full-text transcripts (for full-length presentations). Currently all but 1% of full-length presentations have full-text transcripts, the remaining 1% have attributes which prevent complete transcription (sound quality, etc.)
<b><u>1.2.2 Captions (Prerecorded)</u></b> (Level A)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: Short video clips integrated into papers do not include audio content. Long-form presentations with audio are closed captioned. Currently all but 1% of full-length presentations have full-text transcripts, the remaining 1% have attributes which prevent complete transcription (sound quality, etc.)
<b><u>1.2.3 Audio Description or Media Alternative (Prerecorded)</u></b> (Level A)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: Currently all but 1% of full-length presentations have full-text transcripts, the remaining 1% have attributes which prevent complete transcription (sound quality, etc.)
<b><u>1.3.1 Info and Relationships</u></b> (Level A)	Web: Supports Electronic Docs: Supports Software: N/A Authoring Tool: N/A	Web: Information and Relationships are designated in the page source; Abstract as abstract, Sections as sections, etc. Electronic Docs: Information and relationships in the PDF files are shown via text formatting and

Criteria	Conformance Level	Remarks and Explanations
		variation as per standard printed scientific publication.
<b><u>1.3.2 Meaningful Sequence</u></b> (Level A)	Web: Supports Electronic Docs: Supports Software: N/A Authoring Tool: N/A	Web: Information is provided in a meaningful sequence on the page in the document as a whole, following standard science publication practice. Electronic Docs: Information is provided in a meaningful sequence on the page in the document as a whole, following standard science publication practice.
<b><u>1.3.3 Sensory Characteristics</u></b> (Level A)	Web: Supports Electronic Docs: Supports Software: N/A Authoring Tool: N/A	Web: Instructions provided for understanding and operating content do not rely solely on sensory characteristics of components such as shape, color, size, visual location, orientation, or sound. Electronic Docs: As noted above.
<b><u>1.4.1 Use of Color</u></b> (Level A)	Web: Supports Electronic Docs: Supports Software: N/A Authoring Tool: N/A	Web: Due to the nature of SPIE's optics content, some papers discuss and present color in particular depth. Even in these cases though, care is taken to have proper captions and textual explanation. Electronic Docs: As noted above.
<b><u>1.4.2 Audio Control</u></b> (Level A)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: No web page in the site contains audio content that plays automatically.
<b><u>2.1.1 Keyboard</u></b> (Level A)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: Tabbing through links works as expected. Focus state indicator is provided for keyboard users in order to maintain orientation on page.
<b><u>2.1.2 No Keyboard Trap</u></b> (Level A)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: Focus can be moved away from page components using only a keyboard interface.
<b><u>2.1.4 Character Key Shortcuts</u></b> (Level A 2.1 only)	Web: N/A Electronic Docs: N/A Software: N/A Authoring Tool: N/A	We do not currently implement keyboard shortcuts in content on the Digital Library.

Criteria	Conformance Level	Remarks and Explanations
<b><u>2.2.1 Timing Adjustable</u></b> (Level A)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: There is a 20-minute session time out, however, once the user takes any further action on the site, a new session is instantiated with the appropriate access to content.
<b><u>2.2.2 Pause, Stop, Hide</u></b> (Level A)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: All moving, blinking, or scrolling information is limited to less than five seconds. The site contains no other automatically updated information.
<b><u>2.3.1 Three Flashes or Below Threshold</u></b> (Level A)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: Currently the SPIE Digital Library contains some advertisements that include blinking or otherwise cycling graphic elements. These elements animate for no more than 5 seconds, then become static.
<b><u>2.4.1 Bypass Blocks</u></b> (Level A)	Web: Supports Electronic Docs: N/A Authoring Tool: N/A	Web: Structural markup and multiple navigation paths allow for bypassing non-primary content blocks.
<b><u>2.4.2 Page Titled</u></b> (Level A)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: Content page titles are the title of the contained article. Other page titles describe the pages content and/or function.
<b><u>2.4.3 Focus Order</u></b> (Level A)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: Focus order is preserved. See remarks for 2.1.1
<b><u>2.4.4 Link Purpose (In Context)</u></b> (Level A)	Web: Supports Electronic Docs: Supports Software: N/A Authoring Tool: N/A	Web: The purpose of each link can be determined from the link text alone or from the link text together with its programmatically determined link context Electronic Docs: As noted above.
<b><u>2.5.1 Pointer Gestures</u></b> (Level A 2.1 only)	Web: N/A Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Content on the Digital Library is currently “point and click”, without using a path-based gesture.
<b><u>2.5.2 Pointer Cancellation</u></b> (Level A 2.1 only)	Web: N/A Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Content on the Digital Library is currently based on “up-event” interactions.

Criteria	Conformance Level	Remarks and Explanations
<b>2.5.3 Label in Name</b> (Level A 2.1 only)		Updates to Digital Library planned
<b>2.5.4 Motion Actuation</b> (Level A 2.1 only)	Web: N/A Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Content on the Digital Library is currently not triggered by moving a device or gesturing towards a device.
<b>3.1.1 Language of Page</b> (Level A)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: Language is designated in page metadata as 'En'.
<b>3.2.1 On Focus</b> (Level A)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: When any component receives focus, it does not initiate a change of context.
<b>3.2.2 On Input</b> (Level A)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: Changing the setting of any user interface component does not automatically cause a change of context.
<b>3.3.1 Error Identification</b> (Level A)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: Error identification is provided on the input of username and password for sign in. No errors are generated on search input (the only site input other than credentials) as all search items are considered legitimate search queries.
<b>3.3.2 Labels or Instructions</b> (Level A)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: Labels or instructions are provided when content requires user input; both for sign in and search queries.
<b>4.1.1 Parsing</b> (Level A)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: Content is implemented using markup languages. All markup elements are complete and the pages as a whole are valid markup documents.
<b>4.1.2 Name, Role, Value</b> (Level A)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: For all user interface components the name and role can be programmatically determined and set.

**Table 2: Success Criteria, Level AA**

Notes:

Criteria	Conformance Level	Remarks and Explanations
<b><u>1.2.4 Captions (Live)</u></b> (Level AA)	Web: N/A Electronic Docs: N/A Software: N/A Authoring Tool: N/A	No live audio content is presented on the web site.
<b><u>1.2.5 Audio Description (Prerecorded)</u></b> (Level AA)	Web: Partially Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: Short video content integrated into research papers are described in captions and full text. Longer conference presentations may have audio description provided by the presenter, but this is not the case with every conference presentation.
<b><u>1.3.4 Orientation</u></b> (Level AA 2.1 only)	Web: N/A Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Content on the Digital Library is currently not restricted by device orientation.
<b><u>1.3.5 Identify Input Purpose</u></b> (Level AA 2.1 only)		Updates to Digital Library planned
<b><u>1.4.3 Contrast (Minimum)</u></b> (Level AA)	Web: Supports Electronic Docs: Supports Software: N/A Authoring Tool: N/A	Web: Content web pages meet the 4.5:1 contrast requirement.
<b><u>1.4.4 Resize text</u></b> (Level AA)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: Supported via browser functionality
<b><u>1.4.5 Images of Text</u></b> (Level AA)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: Some math content is represented by images of equations and formulae, this is deemed as essential to the information being conveyed (see note on WCAG 1.4.5 specifications).
<b><u>1.4.10 Reflow</u></b> (Level AA 2.1 only)		Updates to Digital Library planned
<b><u>1.4.11 Non-text Contrast</u></b> (Level AA 2.1 only)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: Content web pages meet the 4.5:1 contrast requirement.

Criteria	Conformance Level	Remarks and Explanations
<b><u>1.4.12 Text Spacing</u></b> (Level AA 2.1 only)		Updates to Digital Library planned
<b><u>1.4.13 Content on Hover or Focus</u></b> (Level AA 2.1 only)		Updates to Digital Library planned
<b><u>2.4.5 Multiple Ways</u></b> (Level AA)	Web: Supports Electronic Docs: Supports Authoring Tool: N/A	Web: More than one way is available to locate a Web page within a set of Web pages.
<b><u>2.4.6 Headings and Labels</u></b> (Level AA)	Web: Supports Electronic Docs: Supports Software: N/A Authoring Tool: N/A	Web: Headings and labels describe topic or purpose. Electronic Docs: As noted above.
<b><u>2.4.7 Focus Visible</u></b> (Level AA)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: See note in this document under 2.1.1
<b><u>3.1.2 Language of Parts</u></b> (Level AA)	Web: Does Not Support Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: See note in this document under 3.1.1
<b><u>3.2.3 Consistent Navigation</u></b> (Level AA)	Web: Supports Electronic Docs: N/A Authoring Tool: N/A	Web: Navigation is consistent for all pages, by content type, across the site. There are some minor changes between book, article, and video presentation pages but they are consistent inside those content types and parallel to other navigation arrangements on the site.
<b><u>3.2.4 Consistent Identification</u></b> (Level AA)	Web: Supports Electronic Docs: N/A Authoring Tool: N/A	Web: Components that have the same functionality within a set of Web pages are identified consistently.
<b><u>3.3.3 Error Suggestion</u></b> (Level AA)	Web: Supports Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Web: The SPIE Digital Library has two places for user input, user credentials for the purpose of signing into personal accounts, and search input. No input error suggestion is appropriate for signing in. Search does not offer error suggestion, but does offer search suggestions as the user types to help prevent errors ahead of time.
<b><u>3.3.4 Error Prevention (Legal, Financial, Data)</u></b> (Level AA)	Web: Supports Electronic Docs: N/A Software: N/A	Web: User input for financial transactions (the purchase of a subscription) is reversible, checked, and confirmed.



Criteria	Conformance Level	Remarks and Explanations
	Authoring Tool: N/A	
<b><u>4.1.3 Status Messages</u></b> (Level AA 2.1 only)	Web: N/A Electronic Docs: N/A Software: N/A Authoring Tool: N/A	Status messages are not currently implemented on content in the Digital Library.