# The MathWorks, Inc.

#  Accessibility Conformance Report

# WCAG Edition

**VPAT**® **Version 2.3 (Revised) – April 2019**

## Name of Product/Version: MATLAB® 23.2 (R2023b)

## Product Description: MATLAB is the high-level language and interactive technical computing environment used by millions of engineers and scientists

## Report Date: September 13, 2023

## Contact information: service@mathworks.com

## Notes: MATLAB Online is a more accessible alternative for some customers. Please visit the [MathWorks Trust Center](https://www.mathworks.com/company/aboutus/policies_statements/trust-center.html) to view the latest MATLAB Online VPAT.

## Evaluation Methods Used: Manual check: audio/video content, sensory characteristics, keyboard navigation, focus visible, focus order, images of text, consistent navigation, error messages.

## Applicable Standards/Guidelines

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

|  |  |
| --- | --- |
| Standard/Guideline | Included In Report |
| [Web Content Accessibility Guidelines 2.0](http://www.w3.org/TR/2008/REC-WCAG20-20081211) | Level A (Yes)Level AA (Yes)Level AAA (No) |
| [Web Content Accessibility Guidelines 2.1](https://www.w3.org/TR/WCAG21) | 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.
* **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 2.1 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](https://www.w3.org/TR/WCAG20/#conformance-reqs).

### Table 1: Success Criteria, Level A

Notes: MATLAB is a desktop application that does not yet meet all WCAG 2.1 Level A requirements.

| **Criteria** | **Conformance Level**  | **Remarks and Explanations** |
| --- | --- | --- |
| [**1.1.1 Non-text Content**](http://www.w3.org/TR/WCAG20/#text-equiv-all) | Does Not Support | Textual descriptions of graphical content may exist but are not exposed to assistive technology. |
| [**1.2.1 Audio-only and Video-only (Prerecorded)**](http://www.w3.org/TR/WCAG20/#media-equiv-av-only-alt) | Not Applicable | Audio is not required for product operation, though audio-generating features do exist. |
| [**1.2.2 Captions (Prerecorded)**](http://www.w3.org/TR/WCAG20/#media-equiv-captions) | Not Applicable | Audio is not required for product operation, though audio-generating features do exist. |
| [**1.2.3 Audio Description or Media Alternative (Prerecorded)**](http://www.w3.org/TR/WCAG20/#media-equiv-audio-desc) | Not Applicable | Audio is not required for product operation, though audio-generating features do exist. |
| [**1.3.1 Info and Relationships**](http://www.w3.org/TR/WCAG20/#content-structure-separation-programmatic) | Does Not Support | The structure and/or relationship of controls and content is not exposed to assistive technology. |
| [**1.3.2 Meaningful Sequence**](http://www.w3.org/TR/WCAG20/#content-structure-separation-sequence) | Does Not Support | The sequence and relationship of content displayed to the user is not exposed to screen readers. |
| [**1.3.3 Sensory Characteristics**](http://www.w3.org/TR/WCAG20/#content-structure-separation-understanding) | Does Not Support | In some cases, icon buttons do not have an associated text label. |
| [**1.4.1 Use of Color**](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-without-color) | Does Not Support | Information might occasionally be encoded only in color. |
| [**1.4.2 Audio Control**](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-dis-audio) | Not Applicable | Audio is not required for product operation, though audio-generating features do exist. |
| [**2.1.1 Keyboard**](http://www.w3.org/TR/WCAG20/#keyboard-operation-keyboard-operable) | Does Not Support | Many of the UI controls in MATLAB can be accessed using a keyboard, and other core functionality can be performed by entering MATLAB commands in the Command Window. |
| [**2.1.2 No Keyboard Trap**](http://www.w3.org/TR/WCAG20/#keyboard-operation-trapping) | Does Not Support | Focus cannot be moved away from some dialogs with only the keyboard. |
| [**2.1.4 Character Key Shortcuts**](https://www.w3.org/TR/WCAG21/#character-key-shortcuts)(Level A 2.1 only) | Supports |  |
| [**2.2.1 Timing Adjustable**](http://www.w3.org/TR/WCAG20/#time-limits-required-behaviors) | Supports |  |
| [**2.2.2 Pause, Stop, Hide**](http://www.w3.org/TR/WCAG20/#time-limits-pause) | Not Applicable | MATLAB does not run any animations or multimedia content automatically. |
| [**2.3.1 Three Flashes or Below Threshold**](http://www.w3.org/TR/WCAG20/#seizure-does-not-violate) | Supports |  |
| [**2.4.1 Bypass Blocks**](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-skip)  | Not Applicable |  |
| [**2.4.2 Page Titled**](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-title)  | Not Applicable |  |
| [**2.4.3 Focus Order**](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-focus-order)  | Does Not Support | Focus order may not be consistent in all UIs. |
| [**2.4.4 Link Purpose (In Context)**](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-refs)  | Does Not Support | Link purpose is not always determinable by the link text. |
| [**2.5.1 Pointer Gestures**](https://www.w3.org/TR/WCAG21/#pointer-gestures) (Level A 2.1 only) | Partially Supports | Figures have functionality that require pointer gestures. Resizing side panels and document windows also require pointer gestures. |
| [**2.5.2 Pointer Cancellation**](https://www.w3.org/TR/WCAG21/#pointer-cancellation) (Level A 2.1 only) | Does Not support | In some cases, execution of function happens on down event of pointer.  |
| [**2.5.3 Label in Name**](https://www.w3.org/TR/WCAG21/#label-in-name) (Level A 2.1 only) | Does Not support | Name of all user interface components may not be available to assistive technology. |
| [**2.5.4 Motion Actuation**](https://www.w3.org/TR/WCAG21/#motion-actuation) (Level A 2.1 only) | Not Applicable | MATLAB is a desktop application and is not tested for mobile devices with motion sensors. |
| [**3.1.1 Language of Page**](http://www.w3.org/TR/WCAG20/#meaning-doc-lang-id)  | Not Applicable |  |
| [**3.2.1 On Focus**](http://www.w3.org/TR/WCAG20/#consistent-behavior-receive-focus)  | Supports |  |
| [**3.2.2 On Input**](http://www.w3.org/TR/WCAG20/#consistent-behavior-unpredictable-change)  | Supports |  |
| [**3.3.1 Error Identification**](http://www.w3.org/TR/WCAG20/#minimize-error-identified)  | Does Not Support | Error messages display but are not exposed to assistive technology. |
| [**3.3.2 Labels or Instructions**](http://www.w3.org/TR/WCAG20/#minimize-error-cues)  | Does Not Support | Labels and instructions display but are not exposed to assistive technology. |
| [**4.1.1 Parsing**](http://www.w3.org/TR/WCAG20/#ensure-compat-parses)  | Does Not Support | Assistive technology may not be able to accurately parse all content. |
| [**4.1.2 Name, Role, Value**](http://www.w3.org/TR/WCAG20/#ensure-compat-rsv)  | Does Not Support | Name, role, and value of all user interface components may not be available to assistive technology. |

### Table 2: Success Criteria, Level AA

Notes: MATLAB is a desktop application that does not yet meet all WCAG 2.1 Level AA requirements.

| **Criteria** | **Conformance Level**  | **Remarks and Explanations** |
| --- | --- | --- |
| [**1.2.4 Captions (Live)**](http://www.w3.org/TR/WCAG20/#media-equiv-real-time-captions)  | Not Applicable | Audio is not required for product operation, though audio-generating features do exist. |
| [**1.2.5 Audio Description (Prerecorded)**](http://www.w3.org/TR/WCAG20/#media-equiv-audio-desc-only)  | Not Applicable | Audio is not required for product operation, though audio-generating features do exist. |
| [**1.3.4 Orientation**](https://www.w3.org/TR/WCAG21/#orientation) (Level AA 2.1 only) | Supports |   |
| [**1.3.5 Identify Input Purpose**](https://www.w3.org/TR/WCAG21/#identify-input-purpose) (Level AA 2.1 only) | Does Not Support  | Input field purpose may not always be programmatically determined. |
| [**1.4.3 Contrast (Minimum)**](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-contrast)  | Does Not Support | In some cases, user interface text does not meet minimum contrast requirements. |
| [**1.4.4 Resize text**](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-scale)  | Does Not Support | Not all text in the application can be resized. |
| [**1.4.5 Images of Text**](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-text-presentation)  | Does Not Support | Figures have textual information which is not exposed to assistive technology. |
| [**1.4.10 Reflow**](https://www.w3.org/TR/WCAG21/#reflow) (Level AA 2.1 only) | Does Not Support | Horizontal or vertical scrolling may be required. |
| [**1.4.11 Non-text Contrast**](https://www.w3.org/TR/WCAG21/#non-text-contrast) (Level AA 2.1 only) | Does Not Support | MATLAB Toolstrip icons and other non-text content may not meet minimum contrast requirements. |
| [**1.4.12 Text Spacing**](https://www.w3.org/TR/WCAG21/#text-spacing) (Level AA 2.1 only) | Does Not Support | MATLAB does not have option to change text style properties like line height, letter spacing and word spacing. |
| [**1.4.13 Content on Hover or Focus**](https://www.w3.org/TR/WCAG21/#content-on-hover-or-focus) (Level AA 2.1 only) | Does Not Support | In some cases, tooltip content might not be hoverable or dismissable without moving pointer hover. |
| [**2.4.5 Multiple Ways**](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-mult-loc) | Not Applicable |  |
| [**2.4.6 Headings and Labels**](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-descriptive)  | Does Not Support | Headings and labels are not exposed to assistive technology. |
| [**2.4.7 Focus Visible**](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-focus-visible)  | Does Not Support | In some cases, a focus indicator might not be clearly visible to the user. |
| [**3.1.2 Language of Parts**](http://www.w3.org/TR/WCAG20/#meaning-other-lang-id)  | Not Applicable |  |
| [**3.2.3 Consistent Navigation**](http://www.w3.org/TR/WCAG20/#consistent-behavior-consistent-locations)  | Not Applicable |  |
| [**3.2.4 Consistent Identification**](http://www.w3.org/TR/WCAG20/#consistent-behavior-consistent-functionality)  | Not Applicable |  |
| [**3.3.3 Error Suggestion**](http://www.w3.org/TR/WCAG20/#minimize-error-suggestions)  | Does Not Support | Error messages display but are not exposed to assistive technology. |
| [**3.3.4 Error Prevention (Legal, Financial, Data)**](http://www.w3.org/TR/WCAG20/#minimize-error-reversible)  | Not Applicable |  |
| [**4.1.3 Status Messages**](https://www.w3.org/TR/WCAG21/#status-messages)(Level AA 2.1 only) | Does Not Support | Status messages may not always be programmatically determined. |

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