



WIRIS Accessibility Conformance Report

International Edition

(Based on VPAT[®] Version 2.4)

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Name of Product/Version

MathType for Office Tools - MathType for Microsoft 365 and MathType for Google Workspace

Report Date

March 2023

Product Description

MathType for Office Tools is part of the MathType suite of products to edit math equations and chemistry formulas in different technological set-ups. MathType for Office Tools includes MathType 7 for Windows and Mac, MathType for Microsoft 365 and MathType for Google Workspace. It integrates MathType editor into Word and PowerPoint (Microsoft 365), Google Docs and Google Slides so you can easily write math and chem formulas in your documents and presentations.

This VPAT applies to MathType for Microsoft 365 and MathType for Google Workspace.

Contact information

support@wiris.com

Notes

MathType for Office Tools integrations

MathType for Office tools is an integration of MathType web editor in a third-party environment:

- MathType for Microsoft 365 integrates MathType web editor into Word and PowerPoint desktop, Word and PowerPoint online and Word and PowerPoint for iPad
- MathType for Google Workspace integrates MathType web editor into Google Docs and Google Slides

This report covers MathType web editor accessibility features integrated in these third-party apps.

The integrations in third-party applications include a button in a ribbon or in a command menu which launches a window (or similar) where the MathType web editor is embedded. WIRIS provides required info such as tooltips and understandable labels, but the third-party application is responsible for its accessibility.

The equation image created is also integrated in the third-party environment. WIRIS provides accessible text in all its equation images, but the third-party application is responsible for its accessibility.

MathType as a web-based application and as an authoring tool

MathType as a **web-based application** has these main features:

- Creating/Editing math equations.

MathType lets you edit math equation using two **editing modes**:

- o *Classic input* mode uses symbols and templates from MathType's toolbar, combining them to build the equation.

- o *Handwritten input* mode lets you write the equation in your own handwriting. This input mode is an alternative input mode for the classic input. It is not intended to be used by users without vision or limited manipulation.

MathType as an **authoring tool** generates these products:

- Equation images.

MathType for Office Tools VPAT

In order to ease the reading of this report, there are two separate tables corresponding to applicable requirement scopes “Web” and “Authoring tool”. For the third applicable scope, “Support Documentation”, you can find MathType Support Documentation VPAT at our Documentation at docs.wiris.com.

Requirements related to “Software”, “Closed Functionality Software”, “non-web document” or “Product Docs” don’t apply because MathType is a web-based application, it is not a closed functionality software, and all its documentation is web.

VPAT report revisions

This revision

- updates to VPAT® Version 2.4 and includes WCAG 2.1 criteria

- builds a single document for MathType for Microsoft 365 and MathType for Google Workspace applications as part of MathType for Office Tools.

Evaluation Methods Used

Manual HTML inspection using assistive technologies by WIRIS accessibility specialist:

- Screen reader (NVDA)
- Lighthouse Accessibility Report (Microsoft Edge)

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>	(Yes)
<u>Revised Section 508 standards published January 18, 2017 and corrected January 22, 2018</u>	(Yes)
<u>EN 301 549 Accessibility requirements suitable for public procurement of ICT products and services in Europe, - V3.1.1 (2019-11)</u>	(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 2.1 Conformance Requirements](#).

Compliance table for WCAG 2.1, Revised Section 508 Report and EN 301 549 Report

Authoring tool

Criteria	Conformance level	Passed?	Criteria description	Notes
WCAG 2.1				
Perceivable				
Text alternatives				
1.1.1 Non text content	Level A	Yes	non-text content that is presented to the user has a text alternative that serves the equivalent purpose	Alternative texts are used to provide descriptions for images (HTML alt attribute) and aria labels are provided as descriptions for other graphical controls. decorative images are given an empty alt text so that they are ignored by assistive technologies. Any control which is visually represented by an icon has an aria-label with a textual description

Time-based Media				
1.2.1 Audio-only and Video-only (Prerecorded)	Level A	N/A	For prerecorded audio and video, there exist alternative methods to visualize the content.	No prerecorded media is used in this application.
1.2.2 Captions (Prerecorded)	Level A	N/A	Captions are provided for all prerecorded audio content in synchronized media, except when the media is a media alternative for text and is clearly labeled as such.	There is no need to provide captions because there is no prerecorded media being used.
1.2.3 Audio Description or Media Alternative (Prerecorded)	Level A	N/A	An alternative for time-based media or audio description of the prerecorded video content is provided for synchronized media, except when the media is a media alternative for text and is clearly labeled as such.	There is no video content in this app.
1.2.4 Captions (Live)	Level AA	N/A	Captions are provided for all live audio content in synchronized media.	The application does not contain any live audio.
1.2.5 audio Description (Prerecorded)	Level AA	N/A	Audio description is provided for all prerecorded video content in synchronized media.	No prerecorded video is available in this application.

Adaptable			
1.3.1 Info and Relationships	Level A	Yes	Information, structure, and relationships conveyed through presentation can be programmatically determined or are available in text.
1.3.2 Meaningful Sequence	Level A	Yes	When the sequence in which content is presented affects its meaning, a correct reading sequence can be programmatically determined.
1.3.3 Sensory Characteristics	Level A	Yes	<p>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.</p> <p>NOTE</p> <p>For requirements related to color, refer to</p>

Grouping roles are used to identify related form controls with fieldset and legend HTML elements. Regions, tables and landmarks are not necessary for this application since it is small and relies mostly on the system focus. Form controls have correctly associated labels using either aria labels or <label> tags.

The content is correctly positioned on the DOM to ensure proper focus order and screen reader interaction, and CSS does not change the visual order of the content. Focus order is determined by HTML positioning alone.

Enough information is provided so as not to rely on a specific sensory characteristic.

1.3.4 Orientation	Level AA	Yes	Content does not restrict its view and operation to a single display orientation, such as portrait or landscape, unless a specific display orientation is essential.	The orientation does not depend on the application, but on Google Docs.
1.3.5 Identify Input Purpose	Level AA	Yes	The purpose of each input field collecting information about the user can be programmatically determined when: <ul style="list-style-type: none"> • The input field serves a purpose identified in the Input Purposes for User Interface Components section; and • The content is implemented using technologies with support for identifying the expected meaning for form input data. 	All inputs have correct labels associated with them.
Distinguishable				
1.4.1 Use of Color	Level A	Yes	Color is not used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.	Any information which uses color for highlighting can also be identified via other means. visual content which relies on color has other cues which make it easily distinguishable.
1.4.2 Audio Control	Level A	N/A	If any audio on a Web page plays automatically for more than 3 seconds, either a mechanism is available	There is no audio in this application.

			to pause or stop the audio, or a mechanism is available to control audio volume independently from the overall system volume level.	
1.4.3 Contrast (Minimum)	Level AA	No	<p>The visual presentation of text and images of text has a contrast ratio of at least 4.5:1, except for the following:</p> <ul style="list-style-type: none"> • Large Text: Large-scale text and images of large-scale text have a contrast ratio of at least 3:1; • Incidental: Text or images of text that are part of an inactive user interface component, that are pure decoration, that are not visible to anyone, or that are part of a picture that contains significant other visual content, have no contrast requirement. • Logotypes: Text that is part of a logo or brand name has no contrast requirement. 	Contrast requirements are not met by the alerts used for licensing and OLE conversion. All other controls use CSS to ensure an adequate contrast ratio between the background and the text and icons.
1.4.4 Resize Text	Level AA	Yes	Except for captions and images of text, text can be resized without assistive technology up to 200 percent without loss of content or functionality.	Partial support. The user can resize the text if necessary using the dialog controls, accessible via mouse input. No text is clipped or obscured if it is resized.

				However, the sidebar is small and on some screens it might not be possible to resize to 200%.
1.4.5 Images of text	Level AA	Yes	<p>If the technologies being used can achieve the visual presentation, text is used to convey information rather than images of text except for the following:</p> <ul style="list-style-type: none"> • Customizable: The image of text can be visually customized to the user's requirements; • Essential: A particular presentation of text is essential to the information being conveyed. <p>NOTE Logotypes (text that is part of a logo or brand name) are considered essential.</p>	CSS is used to control the visual presentation. All images have accompanying text or have text alternatives. Logos are properly described, including the trial version logo, which has its own alternative text.

<p>1.4.10 Reflow</p>	<p>Level AA</p>	<p>Yes</p>	<p>Content can be presented without loss of information or functionality, and without requiring scrolling in two dimensions for:</p> <ul style="list-style-type: none"> • Vertical scrolling content at a width equivalent to 320 CSS pixels; • Horizontal scrolling content at a height equivalent to 256 CSS pixels. <p>Except for parts of the content which require two-dimensional layout for usage or meaning.</p> <p>NOTE</p> <p>Note: 320 CSS pixels is equivalent to a starting viewport width of 1280 CSS pixels wide at 400% zoom. For web content which are designed to scroll horizontally (e.g. with vertical text), the 256 CSS pixels is equivalent to a starting viewport height of 1024px at 400% zoom.</p> <p>NOTE</p> <p>Examples of content which require two-dimensional layout are images, maps, diagrams, video, games, presentations, data tables, and interfaces where it is necessary to keep toolbars in view while manipulating content.</p>	<p>CSS reflow is applied using flexbox, width, max width... to fit labels and inputs; the size and position are calculated according the text size.</p>
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1.4.11 Non Text contrast	<p>Level AA</p>	<p>Yes</p>	<p>The visual presentation of the following have a contrast ratio of at least 3:1 against adjacent color(s):</p> <ul style="list-style-type: none"> • User Interface Components: Visual information required to identify user interface components and states, except for inactive components or where the appearance of the component is determined by the user agent and not modified by the author; • Graphical Objects: Parts of graphics required to understand the content, except when a particular presentation of graphics is essential to the information being conveyed. 	<p>Icons, images of texts and background have a contrast of at least 3:1. We can use tools like Lighthouse, which include a color contrast checker, to check that these requirements are met.</p>
1.4.12 Text Spacing	<p>Level AA</p>	<p>Yes</p>	<p>In content implemented using markup languages that support the following text style properties, no loss of content or functionality occurs by setting all of the following and by changing no other style property:</p> <ul style="list-style-type: none"> • Line height (line spacing) to at least 1.5 times the font size; • Spacing following paragraphs to at least 2 times the font size; • Letter spacing (tracking) to at least 0.12 times the font size; 	<p>Partial support. Text can be spaced without wrapping and the text spacing can be changed by the user if necessary. However, some screens might be too small to display all the text appropriately if it is resized.</p>

			<ul style="list-style-type: none"> • Word spacing to at least 0.16 times the font size. <p>Exception: Human languages and scripts that do not make use of one or more of these text style properties in written text can conform using only the properties that exist for that combination of language and script.</p>	
1.4.13 Content on Hover or Focus	Level AA	Yes	<p>Where receiving and then removing pointer hover or keyboard focus triggers additional content to become visible and then hidden, the following are true:</p> <ul style="list-style-type: none"> • Dismissable: A mechanism is available to dismiss the additional content without moving pointer hover or keyboard focus, unless the additional content communicates an input error or does not obscure or replace other content; • Hoverable: If pointer hover can trigger the additional content, then the pointer can be moved over the additional content without the additional content disappearing; • Persistent: 	<p>This application does not use this type of content except for the PowerPoint equation editor, which has an alternative accessible view for screen readers for the first time user badge.</p>

			<p>The additional content remains visible until the hover or focus trigger is removed, the user dismisses it, or its information is no longer valid.</p> <p>Exception: The visual presentation of the additional content is controlled by the user agent and is not modified by the author.</p> <p>NOTE</p> <p>Examples of additional content controlled by the user agent include browser tooltips created through use of the HTML title attribute.</p> <p>NOTE</p> <p>Custom tooltips, sub-menus, and other nonmodal popups that display on hover and focus are examples of additional content covered by this criterion.</p>	
Operable				
Keyboard Accessible				
2.1.1 Keyboard	Level A	Yes	<p>All functionality of the content is operable through a keyboard interface without requiring specific timings for individual keystrokes, except where the underlying function requires input that depends on the path of the user's movement and not just the endpoints.</p>	<p>The application uses HTML forms, links and focusable elements. Elements which are not typically focusable have been provided with the tabindex attribute.</p>

			<p>NOTE</p> <p>This exception relates to the underlying function, not the input technique. For example, if using handwriting to enter text, the input technique (handwriting) requires path-dependent input but the underlying function (text input) does not.</p>	
2.1.2 No Keyboard Trap	Level A	Yes	<p>If keyboard focus can be moved to a component of the page using a keyboard interface, then focus can be moved away from that component using only a keyboard interface, and, if it requires more than unmodified arrow or tab keys or other standard exit methods, the user is advised of the method for moving focus away.</p>	<p>User can dismiss all dialog windows and modals without difficulty and using the keyboard by pressing the escape key or by closing the dialog with the mouse or Alt F4.</p>
2.1.4 Character Key shortcuts	Level A	N/A	<p>If a keyboard shortcut is implemented in content using only letter (including upper- and lower-case letters), punctuation, number, or symbol characters, then at least one of the following is true:</p> <ul style="list-style-type: none"> • Turn off: A mechanism is available to turn the shortcut off; • Remap: 	<p>No single letter shortcuts are used. all other shortcuts (including ctrl + alt + letters) are given by the host application.</p>

			<p>A mechanism is available to remap the shortcut to use one or more non-printable keyboard characters (e.g. Ctrl, Alt, etc);</p> <ul style="list-style-type: none"> • Active only on focus: <p>The keyboard shortcut for a user interface component is only active when that component has focus.</p>	
Enough time				
2.2.1 Timing Adjustable	Level A	N/A	<p>For each time limit that is set by the content, at least one of the following is true:</p> <ul style="list-style-type: none"> • Turn off: <p>The user is allowed to turn off the time limit before encountering it; or</p> <ul style="list-style-type: none"> • Adjust: <p>The user is allowed to adjust the time limit before encountering it over a wide range that is at least ten times the length of the default setting; or</p> <ul style="list-style-type: none"> • Extend: <p>The user is warned before time expires and given at least 20 seconds to extend the time limit with a simple action (for example, "press the space bar"), and the</p>	No time limits are used in the application.

			<p>user is allowed to extend the time limit at least ten times; or</p> <ul style="list-style-type: none">• Real-time Exception: The time limit is a required part of a real-time event (for example, an auction), and no alternative to the time limit is possible; or• Essential Exception: The time limit is essential and extending it would invalidate the activity; or• 20 Hour Exception: The time limit is longer than 20 hours. <p>NOTE</p> <p>This success criterion helps ensure that users can complete tasks without unexpected changes in content or context that are a result of a time limit. This success criterion should be considered in conjunction with</p>	
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2.2.2 Pause, Stop, Hide	Level A	N/A	<p>For moving, blinking, scrolling, or auto-updating information, all of the following are true:</p> <ul style="list-style-type: none"> • Moving, blinking, scrolling: For any moving, blinking or scrolling information that (1) starts automatically, (2) lasts more than five seconds, and (3) is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it unless the movement, blinking, or scrolling is part of an activity where it is essential; and • Auto-updating: For any auto-updating information that (1) starts automatically and (2) is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it or to control the frequency of the update unless the auto-updating is part of an activity where it is essential. 	No media or moving info is used.
Seizures and Physical Reactions				
2.3.1 Three Flashes or below Threshold	Level A	N/A	Web pages do not contain anything that flashes more than three times in any one second period, or the flash is below the general flash and red flash thresholds.	Content in this application does not flash.

Navigable				
2.4.1 Bypass blocks	Level A	Yes	A mechanism is available to bypass blocks of content that are repeated on multiple Web pages.	This app does not require any regions, headings or landmarks to separate text. However, expandable and collapsible menus are used when necessary and they have the correct accessibility aria-expanded attribute.
2.4.2 Page Title	Level A	N/A	Web pages have titles that describe topic or purpose.	The html attribute in the MathType editor does not have a title. However, host applications provide their own window name for the MathType window. This window is properly named.
2.4.3 Focus Order	Level A	Yes	If a Web page can be navigated sequentially and the navigation sequences affect meaning or operation, focusable components receive focus in an order that preserves meaning and operability.	DOM elements are placed in the order they are presented. Where this is not possible, the tabindex attribute is used to give it the correct focus order. When additional elements are inserted into the DOM, they are inserted at the proper place in the DOM and never at the bottom, which would impact focus and screen reader reliability.

2.4.4 Link Purpose in Context	Level A	Yes	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, except where the purpose of the link would be ambiguous to users in general.	The text of all links keep the context correctly.
2.4.5 Multiple Ways	Level AA	N/A	More than one way is available to locate a Web page within a set of Web pages except where the Web Page is the result of, or a step in, a process.	Since our web application has a simple enough flow and is not a complex webpage, there is no need to support this as the simplicity of MathType only requires a few actions.
2.4.6 Headings and Labels	Level AA	Yes	Headings and labels describe topic or purpose.	No headings are necessary in this application. Descriptive labels are always provided.
2.4.7 Focus Visible	Level AA	Yes	Any keyboard operable user interface has a mode of operation where the keyboard focus indicator is visible.	Every component shows the focus when it receives it via the keyboard, and it is highly visible. The MathType editor tabs do not show the focus when they are focused via the keyboard.
Input Modalities				

2.5.1 Pointer Gestures (for content)	<p>Level A</p>	<p>Yes</p>	<p>All functionality that uses multipoint or path-based gestures for operation can be operated with a single pointer without a path-based gesture, unless a multipoint or path-based gesture is essential.</p> <p>NOTE</p> <p>This requirement applies to web content that interprets pointer actions (i.e. this does not apply to actions that are required to operate the user agent or assistive technology).</p>	<p>Every component uses standard controls and no path or multipoint gestures are necessary.</p>
2.5.2 Pointer Cancellation	<p>Level A</p>	<p>Yes</p>	<p>For functionality that can be operated using a single pointer, at least one of the following is true:</p> <ul style="list-style-type: none"> • No Down-Event: The down-event of the pointer is not used to execute any part of the function; • Abort or Undo: Completion of the function is on the up-event, and a mechanism is available to abort the function before completion or to undo the function after completion; • Up Reversal: The up-event reverses any outcome of the preceding down-event; 	<p>This app does not use drag and drop. events are triggered when touch is removed, not started, except for handwriting mode, which is optional.</p>

			<ul style="list-style-type: none"> • Essential: Completing the function on the down-event is essential. <p>NOTE</p> <p>Functions that emulate a keyboard or numeric keypad key press are considered essential.</p> <p>NOTE</p> <p>This requirement applies to web content that interprets pointer actions (i.e. this does not apply to actions that are required to operate the user agent or assistive technology).</p>	
2.5.3 Label in Name	<p>Level A</p>	<p>Yes</p>	<p>For user interface components with labels that include text or images of text, the name contains the text that is presented visually.</p> <p>NOTE</p> <p>A best practice is to have the text of the label at the start of the name.</p>	<p>Every component which includes an icon has a matching accessibility label, and the visible text matches and is included in the accessibility label.</p>

2.5.4 Motion actuation	Level A	N/A	<p>Functionality that can be operated by device motion or user motion can also be operated by user interface components and responding to the motion can be disabled to prevent accidental actuation, except when:</p> <ul style="list-style-type: none"> • Supported Interface: The motion is used to operate functionality through an accessibility supported interface; • Essential: The motion is essential for the function and doing so would invalidate the activity. 	The application doesn't read any motion sensors.
Understandable				
Readable				
3.1.1 Language of Page	Level A	No	The default human language of each Web page can be programmatically determined.	The language should be specified in the HTML lang attribute and match the localization if the language is changed.
3.1.2 Language of Parts	Level AA	N/A	The human language of each passage or phrase in the content can be programmatically determined except for proper names, technical terms, words of indeterminate language, and words or phrases that	The language of the page stays consistent throughout the app.

			have become part of the vernacular of the immediately surrounding text.	
Predictable				
3.2.1 On Focus	Level A	Yes	When any user interface component receives focus, it does not initiate a change of context.	Focus change alone (with focus method) does not modify the page. Changes of context occur on activate() or click().
3.2.2 On Input	Level A	Yes	Changing the setting of any user interface component does not automatically cause a change of context unless the user has been advised of the behavior before using the component.	A common accessibility problem with this criteria are dropdowns which automatically trigger events when they are changed such as country dropdowns which reload the page. Dropdowns and edit fields in this app must be submitted before any changes occur.
3.2.3 Consistent Navigation	Level AA	Yes	Navigational mechanisms that are repeated on multiple Web pages within a set of Web pages occur in the same relative order each time they are repeated, unless a change is initiated by the user.	The application is not complex enough to present a navigation bar; whenever navigational links are presented they are always in the same order.
3.2.4 Consistent Identification	Level AA	Yes	Components that have the same functionality within a set of Web pages are identified consistently.	Components stay the same through their lifecycle and they do not change, except for becoming dimmed when content is being loaded.

Input Assistance				
3.3.1 Error Identification	Level A	Yes	If an input error is automatically detected, the item that is in error is identified and the error is described to the user in text.	In our input fields, the user is notified if an error exists and this error has proper screen reader live region attributes.
3.3.2 Labels or Instructions	Level A	Yes	Labels or instructions are provided when content requires user input.	All input fields have their associated label and they are distinguishable from each other. <label> tags are used to associate labels with their corresponding controls.
3.3.3 Error suggestions	Level AA	Yes	Every field has suggestions in case of errors, except for our product key introduction field which, due to the nature of this field, cannot have suggestions.	Only one input field exists in the app, the product key introduction field. Due to the nature of this content, suggestions cannot be provided.
3.3.4 Error Prevention (for Legal and Financial Data)	Level AA	N/A	For Web pages that cause legal commitments or financial transactions for the user to occur, that modify or delete user-controllable data in data storage systems, or that submit user test responses, at least one of the following is true: <ul style="list-style-type: none"> • Reversible: Submissions are reversible. • Checked: 	No legal information is submitted by the user through the application. Any information submitted via the application is obtained via third-party login mechanisms and is stored privately in a database.

			<p>Data entered by the user is checked for input errors and the user is provided an opportunity to correct them.</p> <ul style="list-style-type: none"> • Confirmed: <p>A mechanism is available for reviewing, confirming, and correcting information before finalizing the submission.</p>	
Robust				
Compatible				
4.1.1 Parsing (for markup content)	Level A	Yes	<p>In content implemented using markup languages, elements have complete start and end tags, elements are nested according to their specifications, elements do not contain duplicate attributes, and any IDs are unique, except where the specifications allow these features.</p> <p>NOTE</p> <p>Start and end tags that are missing a critical character in their formation, such as a closing angle bracket or a mismatched attribute value quotation mark are not complete.</p>	The application properly uses HTML according to the current specifications.

<p>4.1.2 Name, Role, Value</p>	<p>Level A</p>	<p>Yes</p>	<p>For all user interface components (including but not limited to: form elements, links and components generated by scripts), the name and role can be programmatically determined; states, properties, and values that can be set by the user can be programmatically set; and notification of changes to these items is available to user agents, including assistive technologies.</p> <p>NOTE</p> <p>This success criterion is primarily for Web authors who develop or script their own user interface components. For example, standard HTML controls already meet this success criterion when used according to specification.</p>	<p>All components have the correct name, role, value and state and follow the correct ARIA specifications. all divs and spans have a proper aria-role when they are interactible. All changes in non text content, such as aria-labels, are correctly updated when the visual information changes. Links which only contain images have an accessible alternative text, such as the fancy notification gifs.</p>
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4.1.3 Status Messages	Level AA	No	In content implemented using markup languages, status messages can be programmatically determined through role or properties such that they can be presented to the user by assistive technologies without receiving focus.	Important messages use role="alert" or live regions to be announced by screen readers.
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Content

Criteria	Conformance level	Passed?	Criteria description	Notes
WCAG 2.1				
Perceivable				
Text alternatives				
1.1.1 Non text content	Level A	Yes	non-text content that is presented to the user has a text alternative that serves the equivalent purpose	Equations produced by MathType have an alternative text which describes the equation for persons with visual disabilities.
Time-based Media				
1.2.1 Audio-only and Video-only (Prerecorded)	Level A	N/A	For prerecorded audio and video, there exist alternative methods to visualize the content.	MathType doesn't present equations in any playable medium.

1.2.2 Captions (Prerecorded)	Level A	N/A	Captions are provided for all prerecorded audio content in synchronized media, except when the media is a media alternative for text and is clearly labeled as such.	Equations don't contain audio.
1.2.3 Audio Description or Media Alternative (Prerecorded)	Level A	N/A	An alternative for time-based media or audio description of the prerecorded video content is provided for synchronized media, except when the media is a media alternative for text and is clearly labeled as such.	Equations are still images without video.
1.2.4 Captions (Live)	Level AA	N/A	Captions are provided for all live audio content in synchronized media.	Equations don't contain live audio.
1.2.5 audio Description (Prerecorded)	Level AA	N/A	Audio description is provided for all prerecorded video content in synchronized media.	No audio description is needed because no video is used.
Adaptable				
1.3.1 Info and Relationships	Level A	N/A	Information, structure, and relationships conveyed through presentation can be programmatically determined or are available in text.	Equation images don't use visual cues to convey information.

1.3.2 Meaningful Sequence	Level A	Yes	<p>When the sequence in which content is presented affects its meaning, a correct reading sequence can be programmatically determined.</p>	<p>The accessible text of the equations shows every symbol present, and mathematical matrices and arrays are read out in the correct row and column order.</p>
1.3.3 Sensory Characteristics	Level A	N/A	<p>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.</p> <p>NOTE</p> <p>For requirements related to color, refer to</p>	<p>Equation images don't rely on shape and/or location to convey information.</p>
1.3.4 Orientation	Level AA	N/A	<p>Content does not restrict its view and operation to a single display orientation, such as portrait or landscape, unless a specific display orientation is essential.</p>	<p>Equation images don't depend on orientation.</p>
1.3.5 Identify Input Purpose	Level AA	N/A	<p>The purpose of each input field collecting information about the user can be programmatically determined when:</p> <ul style="list-style-type: none"> • The input field serves a purpose identified in the Input Purposes for User Interface Components section; and • The content is implemented using technologies with support for identifying the expected meaning for form input data. 	<p>Equation images don't use input fields, they are edited via the authoring tool.</p>
Distinguishable				

1.4.1 Use of Color	Level A	N/A	<p>Color is not used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.</p>	<p>Equation images don't use color on their own to convey information. If they do, the author is responsible for providing additional information in the accessible text.</p>
1.4.2 Audio Control	Level A	N/A	<p>If any audio on a Web page plays automatically for more than 3 seconds, either a mechanism is available to pause or stop the audio, or a mechanism is available to control audio volume independently from the overall system volume level.</p>	<p>Equation images do not contain audio.</p>
1.4.3 Contrast (Minimum)	Level AA	N/A	<p>The visual presentation of text and images of text has a contrast ratio of at least 4.5:1, except for the following:</p> <ul style="list-style-type: none"> • Large Text: Large-scale text and images of large-scale text have a contrast ratio of at least 3:1; • Incidental: Text or images of text that are part of an inactive user interface component, that are pure decoration, that are not visible to anyone, or that are part of a picture that contains significant other visual content, have no contrast requirement. • Logotypes: 	<p>Equation images are compliant with minimum contrast requirements. By default, equation images use black on white background.</p>

			Text that is part of a logo or brand name has no contrast requirement.	
1.4.4 Resize Text	Level AA	Yes	Except for captions and images of text, text can be resized without assistive technology up to 200 percent without loss of content or functionality.	The equation can be resized using the host application or by increasing the font size.

1.4.5 Images of text	Level AA	Yes	<p>If the technologies being used can achieve the visual presentation, text is used to convey information rather than images of text except for the following:</p> <ul style="list-style-type: none"> • Customizable: The image of text can be visually customized to the user's requirements; • Essential: A particular presentation of text is essential to the information being conveyed. <p>NOTE</p> <p>Logotypes (text that is part of a logo or brand name) are considered essential.</p>	Equations produced by MathType are images of text, and they have alternative, descriptive accessible text representations.
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1.4.10 Reflow	Level AA	N/A	<p>Content can be presented without loss of information or functionality, and without requiring scrolling in two dimensions for:</p> <ul style="list-style-type: none"> • Vertical scrolling content at a width equivalent to 320 CSS pixels; • Horizontal scrolling content at a height equivalent to 256 CSS pixels. <p>Except for parts of the content which require two-dimensional layout for usage or meaning.</p> <p>NOTE</p> <p>Note: 320 CSS pixels is equivalent to a starting viewport width of 1280 CSS pixels wide at 400% zoom. For web content which are designed to scroll horizontally (e.g. with vertical text), the 256 CSS pixels is equivalent to a starting viewport height of 1024px at 400% zoom.</p> <p>NOTE</p> <p>Examples of content which require two-dimensional layout are images, maps, diagrams, video, games, presentations, data tables, and interfaces where it is necessary to keep toolbars in view while manipulating content.</p>	Size restrictions do not apply to equation images.
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<p>1.4.11 Non Text contrast</p>	<p>Level AA</p>	<p>Yes</p>	<p>The visual presentation of the following have a contrast ratio of at least 3:1 against adjacent color(s):</p> <ul style="list-style-type: none"> • User Interface Components: <p>Visual information required to identify user interface components and states, except for inactive components or where the appearance of the component is determined by the user agent and not modified by the author;</p> <ul style="list-style-type: none"> • Graphical Objects: <p>Parts of graphics required to understand the content, except when a particular presentation of graphics is essential to the information being conveyed.</p>	<p>Equation images are compliant with minimum contrast requirements. By default, equation images use black on white background.</p>
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1.4.12 Text Spacing	<p>Level AA</p>		<p>In content implemented using markup languages that support the following text style properties, no loss of content or functionality occurs by setting all of the following and by changing no other style property:</p> <ul style="list-style-type: none"> • Line height (line spacing) to at least 1.5 times the font size; • Spacing following paragraphs to at least 2 times the font size; • Letter spacing (tracking) to at least 0.12 times the font size; • Word spacing to at least 0.16 times the font size. <p>Exception: Human languages and scripts that do not make use of one or more of these text style properties in written text can conform using only the properties that exist for that combination of language and script.</p>	<p>This criteria does not apply to equation images.</p>
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1.4.13 Content on Hover or Focus	<p>Level AA</p>	<p>Yes</p>	<p>Where receiving and then removing pointer hover or keyboard focus triggers additional content to become visible and then hidden, the following are true:</p> <ul style="list-style-type: none"> • Dismissable: A mechanism is available to dismiss the additional content without moving pointer hover or keyboard focus, unless the additional content communicates an input error or does not obscure or replace other content; • Hoverable: If pointer hover can trigger the additional content, then the pointer can be moved over the additional content without the additional content disappearing; • Persistent: The additional content remains visible until the hover or focus trigger is removed, the user dismisses it, or its information is no longer valid. <p>Exception: The visual presentation of the additional content is controlled by the user agent and is not modified by the author.</p> <p>NOTE</p> <p>Examples of additional content controlled by the user agent include browser tooltips created through use of the HTML title attribute.</p>	<p>Equation images don't produce any tooltips. However, some host applications like Word or Docs might trigger a tooltip when an image is selected and it is responsibility of these applications to make it accessible. No issues have been detected.</p>
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			<p>NOTE</p> <p>Custom tooltips, sub-menus, and other nonmodal popups that display on hover and focus are examples of additional content covered by this criterion.</p>	
Operable				
Keyboard Accessible				
2.1.1 Keyboard	Level A	N/A	<p>All functionality of the content is operable through a keyboard interface without requiring specific timings for individual keystrokes, except where the underlying function requires input that depends on the path of the user's movement and not just the endpoints.</p> <p>NOTE</p> <p>This exception relates to the underlying function, not the input technique. For example, if using handwriting to enter text, the input technique (handwriting) requires path-dependent input but the underlying function (text input) does not.</p>	<p>Since there is nothing to focus, equation images do not need keyboard navigation.</p>

2.1.2 No Keyboard Trap	Level A	N/A	<p>zIf keyboard focus can be moved to a component of the page using a keyboard interface, then focus can be moved away from that component using only a keyboard interface, and, if it requires more than unmodified arrow or tab keys or other standard exit methods, the user is advised of the method for moving focus away.</p>	Equation images are focusable via the host application and they can be unfocused like any other selectable element.
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2.1.4 Character Key shortcuts	Level A	N/A	<p>If a keyboard shortcut is implemented in content using only letter (including upper- and lower-case letters), punctuation, number, or symbol characters, then at least one of the following is true:</p> <ul style="list-style-type: none"> • Turn off: A mechanism is available to turn the shortcut off; • Remap: A mechanism is available to remap the shortcut to use one or more non-printable keyboard characters (e.g. Ctrl, Alt, etc); • Active only on focus: The keyboard shortcut for a user interface component is only active when that component has focus. 	Shortcuts do not apply to equation images.
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Enough time				
2.2.1 Timing Adjustable	Level A	N/A	<p>For each time limit that is set by the content, at least one of the following is true:</p> <ul style="list-style-type: none"> • Turn off: The user is allowed to turn off the time limit before encountering it; or • Adjust: The user is allowed to adjust the time limit before encountering it over a wide range that is at least ten times the length of the default setting; or • Extend: The user is warned before time expires and given at least 20 seconds to extend the time limit with a simple action (for example, "press the space bar"), and the user is allowed to extend the time limit at least ten times; or • Real-time Exception: The time limit is a required part of a real-time event (for example, an auction), and no alternative to the time limit is possible; or • Essential Exception: 	Images do not have timeout limitations.

			<p>The time limit is essential and extending it would invalidate the activity; or</p> <ul style="list-style-type: none"> • 20 Hour Exception: <p>The time limit is longer than 20 hours.</p> <p>NOTE</p> <p>This success criterion helps ensure that users can complete tasks without unexpected changes in content or context that are a result of a time limit. This success criterion should be considered in conjunction with</p>	
2.2.2 Pause, Stop, Hide	Level A	N/A	<p>For moving, blinking, scrolling, or auto-updating information, all of the following are true:</p> <ul style="list-style-type: none"> • Moving, blinking, scrolling: <p>For any moving, blinking or scrolling information that (1) starts automatically, (2) lasts more than five seconds, and (3) is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it unless the movement, blinking, or scrolling is part of an activity where it is essential; and</p> <ul style="list-style-type: none"> • Auto-updating: <p>For any auto-updating information that (1) starts automatically and (2) is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it or to control</p>	Images do not have timeout limitations.

			the frequency of the update unless the auto-updating is part of an activity where it is essential.	
Seizures and Physical Reactions				
2.3.1 Three Flashes or below Threshold	Level A	N/A	Web pages do not contain anything that flashes more than three times in any one second period, or the flash is below the general flash and red flash thresholds.	Equation images do not contain flashing content.
Navigable				
2.4.1 Bypass blocks	Level A	N/A	A mechanism is available to bypass blocks of content that are repeated on multiple Web pages.	Equation images don't contain repeated content, only what the author provides.
2.4.2 Page Title	Level A	N/A	Web pages have titles that describe topic or purpose.	Equation images do not need a title.
2.4.3 Focus Order	Level A	N/A	If a Web page can be navigated sequentially and the navigation sequences affect meaning or operation, focusable components receive focus in an order that preserves meaning and operability.	Equation images are focused depending on where they are inserted in a document, and the order is properly kept. This is the responsibility of the host application.
2.4.4 Link Purpose in Context	Level A	N/A	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, except where the purpose of the link would be ambiguous to users in general.	Equation images do not contain links.

2.4.5 Multiple Ways	Level AA	N/A	More than one way is available to locate a Web page within a set of Web pages except where the Web Page is the result of, or a step in, a process.	Equation images cannot be considered as a set of web pages or software. This requirement does not apply.
2.4.6 Headings and Labels	Level AA	N/A	Headings and labels describe topic or purpose.	Equation images don't contain headings or labels.
2.4.7 Focus Visible	Level AA	Yes	Any keyboard operable user interface has a mode of operation where the keyboard focus indicator is visible.	When an equation image is focused, it is visually highlighted.
Input Modalities				
2.5.1 Pointer Gestures (for content)	Level A	N/A	All functionality that uses multipoint or path-based gestures for operation can be operated with a single pointer without a path-based gesture, unless a multipoint or path-based gesture is essential. NOTE This requirement applies to web content that interprets pointer actions (i.e. this does not apply to actions that are required to operate the user agent or assistive technology).	Multi-point gestures do not apply to equation images.

2.5.2 Pointer Cancellation	Level A	N/A	<p>For functionality that can be operated using a single pointer, at least one of the following is true:</p> <ul style="list-style-type: none"> • No Down-Event: The down-event of the pointer is not used to execute any part of the function; • Abort or Undo: Completion of the function is on the up-event, and a mechanism is available to abort the function before completion or to undo the function after completion; • Up Reversal: The up-event reverses any outcome of the preceding down-event; • Essential: Completing the function on the down-event is essential. <p>NOTE Functions that emulate a keyboard or numeric keypad key press are considered essential.</p> <p>NOTE This requirement applies to web content that interprets pointer actions (i.e. this does not apply to actions that are required to operate the user agent or assistive technology).</p>	The gestures which apply to images don't fall under the responsibility of MathType.
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2.5.3 Label in Name	Level A	Yes	<p>For user interface components with labels that include text or images of text, the name contains the text that is presented visually.</p> <p>NOTE</p> <p>A best practice is to have the text of the label at the start of the name.</p>	Equation images don't contain labels.
2.5.4 Motion actuation	Level A	N/A	<p>Functionality that can be operated by device motion or user motion can also be operated by user interface components and responding to the motion can be disabled to prevent accidental actuation, except when:</p> <ul style="list-style-type: none"> • Supported Interface: The motion is used to operate functionality through an accessibility supported interface; • Essential: The motion is essential for the function and doing so would invalidate the activity. 	MathType does not provide motion based interaction for equation images. Any interaction would be provided by the host application.
Understandable				
Readable				

3.1.1 Language of Page	Level A	Yes	The default human language of each Web page can be programmatically determined.	Alternative (accessible) text for equation images depends on the language of the host application where it is created (English by default).
3.1.2 Language of Parts	Level AA	Yes	The human language of each passage or phrase in the content can be programmatically determined except for proper names, technical terms, words of indeterminate language, and words or phrases that have become part of the vernacular of the immediately surrounding text.	The language of the equation remains consistent throughout the entire equation, all symbols are properly translated.
Predictable				
3.2.1 On Focus	Level A	N/A	When any user interface component receives focus, it does not initiate a change of context.	This criteria does not apply to equation images as focus depends on the host application.
3.2.2 On Input	Level A	N/A	Changing the setting of any user interface component does not automatically cause a change of context unless the user has been advised of the behavior before using the component.	Changes of context are not the responsibility of equation images.
3.2.3 Consistent Navigation	Level AA	N/A	Navigational mechanisms that are repeated on multiple Web pages within a set of Web pages occur in the same relative	Equation images are single components, integrated in third party applications.

			order each time they are repeated, unless a change is initiated by the user.	
3.2.4 Consistent Identification	Level AA	N/A	Components that have the same functionality within a set of Web pages are identified consistently.	Equation images are single components, integrated in third party applications.
Input Assistance				
3.3.1 Error Identification	Level A	N/A	If an input error is automatically detected, the item that is in error is identified and the error is described to the user in text.	Equation images don't contain any form of input.
3.3.2 Labels or Instructions	Level A	N/A	Labels or instructions are provided when content requires user input.	No instructions or labels are provided in equation images.
3.3.3 Error suggestions	Level AA	N/A	If an input error is automatically detected and suggestions for correction are known, then the suggestions are provided to the user, unless it would jeopardize the security or purpose of the content.	No error suggestions are used in equation images.

3.3.4 Error Prevention (for Legal and Financial Data)	Level AA	N/A	<p>For Web pages that cause legal commitments or financial transactions for the user to occur, that modify or delete user-controllable data in data storage systems, or that submit user test responses, at least one of the following is true:</p> <ul style="list-style-type: none"> • Reversible: Submissions are reversible. • Checked: Data entered by the user is checked for input errors and the user is provided an opportunity to correct them. • Confirmed: A mechanism is available for reviewing, confirming, and correcting information before finalizing the submission. 	There aren't any forms in equation images.
Robust				
Compatible				
4.1.1 Parsing (for markup content)	Level A	Yes	<p>In content implemented using markup languages, elements have complete start and end tags, elements are nested according to their specifications, elements do not contain duplicate attributes, and any IDs are unique, except where the specifications allow these features.</p> <p>NOTE</p>	Equation images use MathML for their content, which is properly formatted.

			Start and end tags that are missing a critical character in their formation, such as a closing angle bracket or a mismatched attribute value quotation mark are not complete.	
4.1.2 Name, Role, Value	Level A	N/A	<p>For all user interface components (including but not limited to: form elements, links and components generated by scripts), the name and role can be programmatically determined; states, properties, and values that can be set by the user can be programmatically set; and notification of changes to these items is available to user agents, including assistive technologies.</p> <p>NOTE</p> <p>This success criterion is primarily for Web authors who develop or script their own user interface components. For example, standard HTML controls already meet this success criterion when used according to specification.</p>	This requirement does not apply to equation images.
4.1.3 Status Messages	Level AA	N/A	In content implemented using markup languages, status messages can be programmatically determined through role or properties such that they can be presented to the user by assistive technologies without receiving focus.	Equation images don't contain status messages.