

A person in a white t-shirt and shorts is walking away from the camera down a long, curved tunnel. The tunnel is formed by many concentric, glowing white lines that create a strong sense of perspective and depth. The background is a dark, textured surface, possibly a road or a field, with some light reflecting off it.

WAI-ARIA 1.1:

An in-depth view into the new & shiny

CSUN 2018

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Why are we here today?

Introduce 10 WAI-ARIA attributes that should have a profound impact on the UX of people with disabilities

- Introduce new ARIA attributes
- Define their current AT support
- Share implementation examples
- Open our research to the community

Speakers



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WAI-ARIA 1.1 specification

W3C Recommendation

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Accessible Rich Internet Applications (WAI-ARIA) 1.1

W3C Recommendation 14 December 2017

This version:
<https://www.w3.org/TR/2017/REC-wai-aria-1.1-20171214/>

Latest published version:
<https://www.w3.org/TR/wai-aria-1.1/>

Latest editor's draft:
<https://w3c.github.io/aria/>

Implementation report:
<https://w3c.github.io/test-results/wai-aria/>

Previous version:
<https://www.w3.org/TR/2017/PR-wai-aria-1.1-20171102/>

Previous Recommendation:
<https://www.w3.org/TR/wai-aria-1.0/>


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Please check the **errata** for any errors or issues reported since publication.

See also **translations**.

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[Abstract](#)



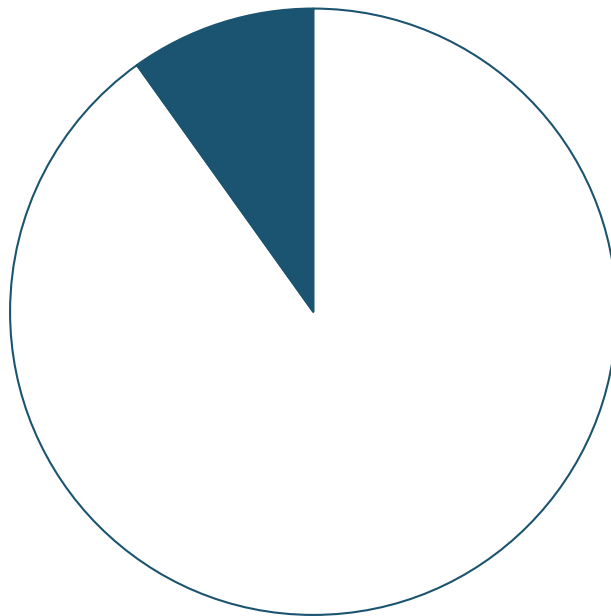
Resource

<https://www.w3.org/TR/wai-aria-1.1/>

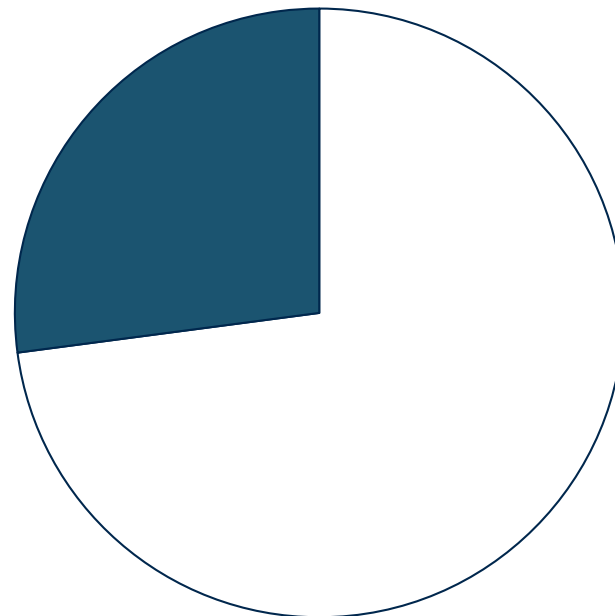


WAI-ARIA 1.1 overview

Version 1.1 introduces over 30 new roles, properties, states, and/or values...

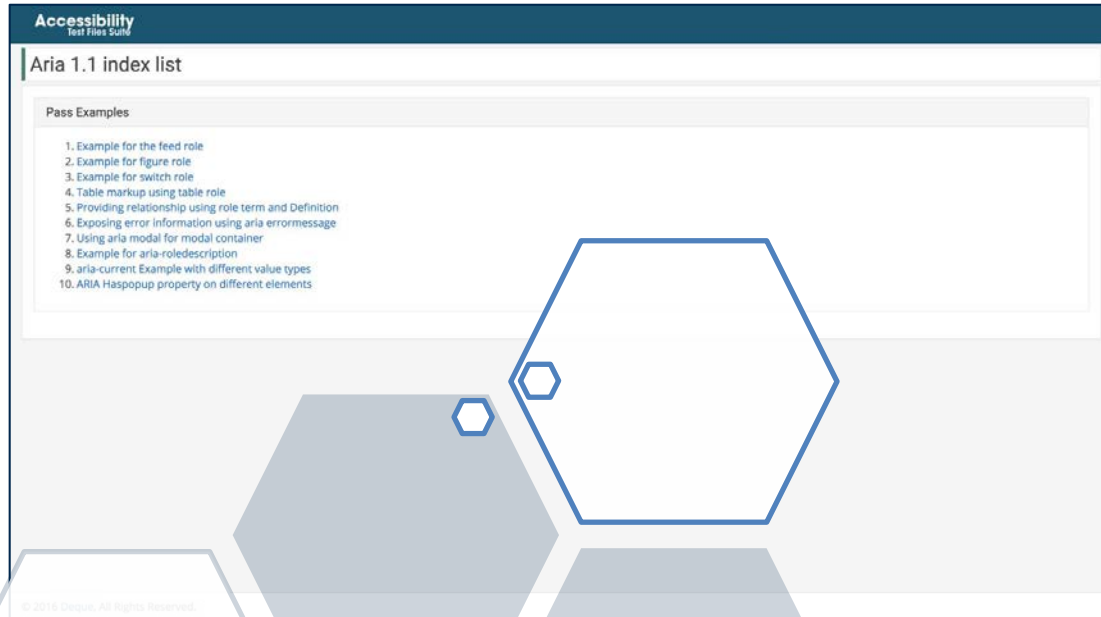


□ ARIA 1.0 (73) ■ ARIA 1.1 (8)



□ ARIA 1.0 (35) ■ ARIA 1.1 (13)

Attributes covered today



1. Feed
2. Figure
3. Switch
4. Table
5. Term
6. ARIA-current
7. ARIA-errormessage
8. ARIA-haspopup
9. ARIA-modal
10. ARIA-roledescription

01. Feed role

Accessibility
Test Files Suite

Example for the feed role

Preview | Code Snippet | Screen Reader Support | Overview | Test Procedure

news

Google Assistant will be multilingual by the end of 2018
Google is planning to make its Assistant fluent in 30 languages by the end of the year with multilingual capabilities.

Send in the clones: MWC gives us our first look at the Google smart displays to come
French technology company Archos has released a Google Assistant smart display that runs on Android Oreo.

Lighthouse is an AI security camera that's heavy on the intelligence
Lighthouse AI is a security camera that uses machine learning to improve on the home security camera.

The Nest IQ Indoor camera is now a Google smart speaker
A software update to the Nest Cam IQ Indoor allows it to function as a replacement Google Home.

Attribute overview

A scrollable list of articles where scrolling may cause articles to be added to or removed from either end of the list.



HTML preview, code snippets and support matrix

<http://a11ytest.dequelabs.com/preview.aspx?ID=MjM4>

01. Feed role support

Accessibility
Test Files Suite

Example for the feed role

[Preview](#) [Code Snippet](#) [Screen Reader Support](#) [Overview](#) [Test Procedure](#)

Assistive Technology	Internet Explorer	FireFox	Chrome	Mobile chrome	Mobile Safari
JAWS	Supports	Partially Supports	Partially supports	NA	NA
NVDA	partially supports	partially supports	partially supports	NA	NA
Talk back	NA	Does not support	NA	Partial supports	NA
Voice over	NA	NA	NA	NA	Does not support

Note:

1. JAWS announces feed in the FF and chrome when entered into this region but articles do not get added/removed in the reading cursor and hence, support is partial.
2. NVDA does not announce in all the browsers that it is feed but articles get added or removed in the reading cursor



HTML preview, code snippets and support matrix

<http://a11ytest.dequelabs.com/preview.aspx?ID=MjM4>

02. Figure role

Accessibility
Test Files Suite

Example for figure role

Preview Code Snippet Screen Reader Support Overview Test Procedure




Fig.1 - A view of the pulpit rock in Norway.

Attribute overview

A perceivable section of content that typically contains a graphical document, images, code snippets, or example text.



HTML preview, code snippets and support matrix

<http://a11ytest.dequelabs.com/preview.aspx?ID=MjM5>

02. Figure role support

Accessibility
Test Files Suite

Example for figure role

Preview Code Snippet **Screen Reader Support** Overview Test Procedure

Assistive Technology	Internet Explorer	FireFox	Chrome	Mobile chrome	Mobile Safari
JAWS	Supports	Supports	Supports	NA	NA
NVDA	Does not support	Does not support	Does not support	NA	NA
Talk back	NA	Does not support	NA	Does not support	NA
Voice over	NA	NA	NA	NA	Does not support



HTML preview, code snippets and support matrix

<http://a11ytest.dequelabs.com/preview.aspx?ID=MjM5>

03. Switch role

Accessibility
Test Files Suite

Example for switch role

Preview Code Snippet Screen Reader Support Overview Test Procedure

Light: 0

Attribute overview
A type of checkbox that represents on/off values, as opposed to checked/unchecked values.



HTML preview, code snippets and support matrix

<http://a11ytest.dequelabs.com/preview.aspx?ID=MjQx>

03. Switch role support

Accessibility
Test Files Suite

Example for switch role

[Preview](#) [Code Snippet](#) [Screen Reader Support](#) [Overview](#) [Test Procedure](#)

Assistive Technology	Internet Explorer	FireFox	Chrome	Mobile chrome	Mobile Safari
JAWS	Supports	Supports	Supports	NA	NA
NVDA	Does not support	Does not support	Does not support	NA	NA
Talk back	NA	supports	NA	Supports	NA
Voice over	NA	NA	NA	NA	Partially supports

Note:

1. voice over announces switch as tick box and when double tab on switch then voice over announces selected. However, when switch receives the focus then voice over announces tick box' but it does not announce whether it is ticked or not ticked and hence, support is partial.
2. Talkback in the firefox does not announce the state ticked/not ticked dynamically but when navigates away and comes back to the element then ticked/not ticked state is being announced



HTML preview, code snippets and support matrix

<http://a11ytest.dequelabs.com/preview.aspx?ID=MjQx>

04. Table role

Accessibility
Test Files Suite

Table markup using table role

Preview | Code Snippet | Screen Reader Support | Overview | Test Procedure

Fruits price list table

Fruit	Domestic	international
Oranges	\$1.0	\$1.25
Apples	\$1.25	\$2.0
Grapes	\$0.25	\$1.1

Attribute overview
A section containing data arranged in rows and columns.



HTML preview, code snippets and support matrix

<http://a11ytest.dequelabs.com/preview.aspx?ID=MjQy>

04. Table role support

Accessibility
Test Files Suite

Table markup using table role

[Preview](#) [Code Snippet](#) [Screen Reader Support](#) [Overview](#) [Test Procedure](#)

Assistive Technology	Internet Explorer	FireFox	Chrome	Mobile chrome	Mobile Safari
JAWS	Supports	Supports	Supports	NA	NA
NVDA	Does not support	Supports	Does not support	NA	NA
Talk back	NA	Supports	NA	Partially supports	NA
Voice over	NA	NA	NA	NA	Supports

Note:

1. Talkback in chrome identifies the table properly and announces the correct column count but announces incorrect(0) rows and hence, the support is partial.



HTML preview, code snippets and support matrix

<http://a11ytest.dequelabs.com/preview.aspx?ID=MjQy>

05. Term role

Accessibility
Test Files Suite

Providing relationship using role term and Definition

Preview Code Snippet Screen Reader Support Overview Test Procedure

The **web accessibility** should be par of software development life cycle(SDLC)
provides equal access or equal opportunity for all the users including people with disabilities

Attribute overview
A word or phrase with a corresponding definition.



HTML preview, code snippets and support matrix

<http://a11ytest.dequelabs.com/preview.aspx?ID=MjQz>

05. Term role support

Accessibility
Test Files Suite

Providing relationship using role term and Definition

[Preview](#) [Code Snippet](#) [Screen Reader Support](#) [Overview](#) [Test Procedure](#)

Assistive Technology	Internet Explorer	FireFox	Chrome	Mobile chrome	Mobile Safari
JAWS	Does not support	Does not support	Does not support	NA	NA
NVDA	Does not support	Does not support	Does not support	NA	NA
Talk back	NA	Partially supports	NA	Partially supports	NA
Voice over	NA	NA	NA	NA	Does not support

Note:

1. talkback in the chrome announces term and definition roles properly but it does not announce the information that is inside of the definition role container
2. talkback in the firefox announces the actual term along with the actual definition but there is no relation like which one is term and which one is definition



HTML preview, code snippets and support matrix

<http://a11ytest.dequelabs.com/preview.aspx?ID=MjQz>

06. ARIA-current state

Accessibility
Test Files Suite

aria-current Example with different value types

Preview | Code Snippet | Screen Reader Support | Overview | Test Procedure

Type 01: When aria current value is set to page

List of deque products

- aXe
- **Worldspace Attest**
- Worldspace Assure
- Worldspace Comply
- Amaze

Type 02: When aria current value is set to date

- 13/03/2018
- **14/03/2018**
- 15/03/2018

Type 03: When aria current value is set to time

- 12:50
- **14:50**
- 17:50

Type 04: When aria current value is set to step

To open a new account follow the below steps

- Basic Information
- Attach Required Documents
- **Verify**
- Completed

Attribute overview

Indicates the element that represents the current item within a container or set of related elements.



HTML preview, code snippets and support matrix

<http://a11ytest.dequelabs.com/preview.aspx?ID=MjQ3>

06. ARIA-current support

Accessibility
Test Files Suite

aria-current Example with different value types

[Preview](#) [Code Snippet](#) [Screen Reader Support](#) [Overview](#) [Test Procedure](#)

Assistive Technology	Internet Explorer	FireFox	Chrome	Mobile chrome	Mobile Safari
JAWS	Supports	Supports	Supports	NA	NA
NVDA	Supports	Supports	Supports	NA	NA
Talk back	NA	Does not support	NA	Does not support	NA
Voice over	NA	NA	NA	NA	Partially supports

Note:

1. NVDA does not support aria-current="false" attribute. If the aria-current is set to false then screen reader should not announce that it is current item but NVDA is announcing as current item inspite of aria-current is set to false
2. Voice over supports if the aria-current is set to the links but it does not support if the aria-current is set to the list items(static text)



HTML preview, code snippets and support matrix

<http://a11ytest.dequelabs.com/preview.aspx?ID=MjQ3>

07. ARIA-errormessage property

Accessibility
Test Files Suite

Exposing error information using aria errormessage

Preview Code Snippet Screen Reader Support Overview Test Procedure

Please enter a start time for the meeting: Invalid time: the time must be between 9:00 AM and 5:00 PM*

Attribute overview
Identifies the element that provides an error message for the object.



HTML preview, code snippets and support matrix

<http://a11ytest.dequelabs.com/preview.aspx?ID=MjQ0>

07. ARIA-errormessage support

Accessibility
Test Files Suite

Exposing error information using aria errormessage

Preview Code Snippet **Screen Reader Support** Overview Test Procedure

Assistive Technology	Internet Explorer	FireFox	Chrome	Mobile chrome	Mobile Safari
JAWS	Supports	Does not support	Does not support	Na	Na
NVDA	Does not support	Does not support	Does not support	Na	Na
Talk back	Na	Does not support	Na	Does not support	Na
Voice over	Na	Na	Na	Na	Does not support

Note:

1. JAWS with IE supports this property



HTML preview, code snippets and support matrix

<http://a11ytest.dequelabs.com/preview.aspx?ID=MjQ0>

08. ARIA-haspopup property

Accessibility
Test Files Suite

ARIA Haspopup property on different elements

Preview | Code Snippet | Screen Reader Support | Overview | Test Procedure

button with various haspopup values

- View WCAG techniques in menu
- View WCAG techniques in listbox
- View WCAG techniques in tree
- View WCAG techniques in grid
- View WCAG techniques in dialog

Links with various haspopup values

- View WCAG techniques in menu
- View WCAG techniques in listbox
- View WCAG techniques in tree view
- View WCAG techniques in grid view
- View WCAG techniques in dialog

Input with various haspopup values

Select WCAG techniques from menu list:

Select WCAG techniques from listbox:

Select WCAG techniques from tree view:

Select WCAG techniques from Grid view:

Select WCAG techniques from Dialog:

Attribute overview

Indicates the availability and type of interactive popup element, such as menu or dialog, that can be triggered by an element.



HTML preview, code snippets and support matrix

<http://a11ytest.dequelabs.com/preview.aspx?ID=MjQ4>

08. ARIA-haspopup support

Accessibility
Test Files Suite

ARIA Haspopup property on different elements

[Preview](#) [Code Snippet](#) [Screen Reader Support](#) [Overview](#) [Test Procedure](#)

Assistive Technology	Internet Explorer	FireFox	Chrome	Mobile chrome	Mobile Safari
JAWS	Partially supports	Partially supports	Partially supports	NA	NA
NVDA	Does not support	Does not support	Does not support	NA	NA
Talk back	NA	Does not support	NA	Does not support	NA
Voice over	NA	NA	NA	NA	Does not support

Note:

1. The meaning of partial support is that when aria-haspopup is set to the different token values on the different elements then JAWS does not announce accordingly. Ex: when aria-haspopup is set to either listbox, grid, dialog, tree on the either button or input text elements then JAWS does not announce like element has listbox, grid, dialog, and tree respectively in the forms mode(it announces appropriately in the virtual cursor mode for at least input elements). However, when aria-haspopup is set to either listbox, grid, dialog, tree on the either link or input elements then JAWS announces appropriately like element has listbox, grid, dialog, and tree respectively



HTML preview, code snippets and support matrix

<http://a11ytest.dequelabs.com/preview.aspx?ID=MjQ4>

09. ARIA-modal property

Accessibility
Test Files Suite

Using aria modal for modal container

Preview Code Snippet Screen Reader Support Overview Test Procedure

Login

Attribute overview
Indicates whether an element is modal when displayed.



HTML preview, code snippets and support matrix

<http://a11ytest.dequelabs.com/preview.aspx?ID=MjQ1>

09. ARIA-modal support

Accessibility
Test Files Suite

Using aria modal for modal container

[Preview](#) [Code Snippet](#) [Screen Reader Support](#) [Overview](#) [Test Procedure](#)

Assistive Technology	Internet Explorer	FireFox	Chrome	Mobile chrome	Mobile Safari
JAWS	Supports	Supports	Does not support	Na	Na
NVDA	Supports	Supports	Supports	Na	Na
Talk back	Na	Does not support	Na	Does not support	Na
Voice over	Na	Na	Na	Na	Partially supports

Note:

1. voice over hides the parent content when this attribute is set but it also hides some of the modal content, which is not correct and hence, the support is partial.
2. Jaws and nvda hides the parent content irrespective of what aria-modal is set to



HTML preview, code snippets and support matrix

<http://a11ytest.dequelabs.com/preview.aspx?ID=MjQ1>

10. ARIA-roledescription property

Accessibility
Test Files Suite

Example for aria-roledescription

Preview Code Snippet Screen Reader Support Overview Test Procedure

aXe statistics
Deque's Accessibility Library – aXe-core hits 1,000,000 Downloads

Previous Next

Attribute overview
Defines a human-readable, author-localized description for the role of an element.



HTML preview, code snippets and support matrix

<http://a11ytest.dequelabs.com/preview.aspx?ID=MjQ2>

10. ARIA-roledescription support

Accessibility
Test Files Suite

Example for aria-roledescription

[Preview](#) [Code Snippet](#) [Screen Reader Support](#) [Overview](#) [Test Procedure](#)

Assistive Technology	Internet Explorer	FireFox	Chrome	Mobile chrome	Mobile Safari
JAWS	Supports	Does not support	Does not support	Na	Na
NVDA	Does not support	Does not support	Does not support	Na	Na
Talk back	Na	Does not support	Na	Does not support	Na
Voice over	Na	Na	Na	Na	Does not support



HTML preview, code snippets and support matrix

<http://a11ytest.dequelabs.com/preview.aspx?ID=MjQ2>

Support for those attributes is awfully limited today. Yet they hold great potential for people who rely on screen readers.

So what can/should we do?

What happens next?

- Expect follow ups on www.sumandamera.com
- More research shared in the coming months

Would you like to contribute? Get in touch!



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Thank you!
Any questions?

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