

# Chapter 41: ARIA

## Section 41.1: role="presentation"

An element whose implicit native role semantics will not be mapped to the accessibility API.

```
<div style="float:left;">Some content on the left.</div>
<div style="float:right;">Some content on the right</div>
<div role="presentation" style="clear:both;"></div> <!-- Only used to clear floats -->
```

## Section 41.2: role="alert"

A message with important, and usually time-sensitive, information.

```
<div role="alert" aria-live="assertive">Your session will expire in 60 seconds.</div>
```

Note that I've included both `role="alert"` and `aria-live="assertive"` at the same time. These are synonymous attributes, but some screen readers only support one or the other. By using both simultaneously we therefore maximize the chances that the live region will function as expected.

Source - Heydon Pickering ['Some practical ARIA examples'](#)

## Section 41.3: role="alertdialog"

A type of dialog that contains an alert message, where initial focus goes to an element within the dialog.

```
<div role="alertdialog">
  <h1>Warning</h1>
  <div role="alert">Your session will expire in 60 seconds.</div>
</div>
```

## Section 41.4: role="application"

A region declared as a web application, as opposed to a web document. In this example, the application is a simple calculator that might add two numbers together.

```
<div role="application">
  <h1>Calculator</h1>
  <input id="num1" type="text"> + <input id="num2" type="text"> =
  <span id="result"></span>
</div>
```

## Section 41.5: role="article"

A section of a page that consists of a composition that forms an independent part of a document, page, or site.

Setting an ARIA role and/or aria-\* attribute that matches the default implicit ARIA semantics is unnecessary and is not recommended as these properties are already set by the browser.

```
<article>
  <h1>My first article</h1>
  <p>Lorem ipsum...</p>
</article>
```

You would use `role=article` on non-semantic elements (not recommended, invalid)

```
<div role="article">
  <h1>My first article</h1>
  <p>Lorem ipsum...</p>
</div>
```

W3C Entry for [role=article](#)

## Section 41.6: role="banner"

A region that contains mostly site-oriented content, rather than page-specific content.

```
<div role="banner">
  <h1>My Site</h1>

  <ul>
    <li><a href="/">Home</a></li>
    <li><a href="/about">About</a></li>
    <li><a href="/contact">Contact</a></li>
  </ul>
</div>
```

## Section 41.7: role="button"

An input that allows for user-triggered actions when clicked or pressed.

```
<button role="button">Add</button>
```

## Section 41.8: role="cell"

A cell in a tabular container.

```
<table>
  <thead>
    <!-- etc -->
  </thead>
  <tbody>
    <td role="cell">95</td>
    <td role="cell">14</td>
    <td role="cell">25</td>
  </tbody>
</table>
```

## Section 41.9: role="checkbox"

A checkable input that has three possible values: true, false, or mixed.

```
<p>
  <input type="checkbox" role="checkbox" aria-checked="false">
  I agree to the terms
```

</p>

## Section 41.10: role="columnheader"

A cell containing header information for a column.

```
<table role="grid">
  <thead>
    <tr>
      <th role="columnheader">Day 1</th>
      <th role="columnheader">Day 2</th>
      <th role="columnheader">Day 3</th>
    </tr>
  </thead>
  <tbody>
    <!-- etc -->
  </tbody>
</table>
```

## Section 41.11: role="combobox"

A presentation of a select; usually similar to a textbox where users can type ahead to select an option, or type to enter arbitrary text as a new item in the list.

```
<input type="text" role="combobox" aria-expanded="false">
```

Typically, you would use JavaScript to build the rest of the typeahead or list select functionality.

## Section 41.12: role="complementary"

A supporting section of the document, designed to be complementary to the main content at a similar level in the DOM hierarchy, but remains meaningful when separated from the main content.

```
<div role="complementary">
  <h2>More Articles</h2>

  <ul>
    <!-- etc -->
  </ul>
</div>
```

## Section 41.13: role="contentinfo"

A large perceivable region that contains information about the parent document.

```
<p role="contentinfo">
  Author: Albert Einstein<br>
  Published: August 15, 1940
</p>
```

## Section 41.14: role="definition"

A definition of a term or concept.

```
<span role="term" aria-labelledby="def1">Love</span>
```

```
<span id="def1" role="definition">an intense feeling of deep affection.</span>
```

## Section 41.15: role="dialog"

A dialog is an application window that is designed to interrupt the current processing of an application in order to prompt the user to enter information or require a response.

```
<div role="dialog">
  <p>Are you sure?</p>
  <button role="button">Yes</button>
  <button role="button">No</button>
</div>
```

## Section 41.16: role="directory"

A list of references to members of a group, such as a static table of contents.

```
<ul role="directory">
  <li><a href="/chapter-1">Chapter 1</a></li>
  <li><a href="/chapter-2">Chapter 2</a></li>
  <li><a href="/chapter-3">Chapter 3</a></li>
</ul>
```

## Section 41.17: role="document"

A region containing related information that is declared as document content, as opposed to a web application.

```
<div role="document">
  <h1>The Life of Albert Einstein</h1>
  <p>Lorem ipsum...</p>
</div>
```

## Section 41.18: role="form"

A landmark region that contains a collection of items and objects that, as a whole, combine to create a form.

Using the semantically correct HTML element **<form>** implies default ARIA semantics, meaning `role=form` is not required as you should not apply a contrasting role to an element that is already semantic, as adding a role overrides the native semantics of an element.

Setting an ARIA role and/or `aria-*` attribute that matches the default implicit ARIA semantics is unnecessary and is not recommended as these properties are already set by the browser.

```
<form action="">
  <fieldset>
    <legend>Login form</legend>
    <div>
      <label for="username">Your username</label>
      <input type="text" id="username" aria-describedby="username-tip" required />
      <div role="tooltip" id="username-tip">Your username is your email address</div>
    </div>
    <div>
      <label for="password">Your password</label>
      <input type="text" id="password" aria-describedby="password-tip" required />
    </div>
  </fieldset>
</form>
```

```
<div role="tooltip" id="password-tip">Was emailed to you when you signed up</div>
</div>
</fieldset>
</form>
```

You would use `role=form` on non-semantic elements (not recommended, invalid)

```
<div role=form>
  <input type="email" placeholder="Your email address">
  <button>Sign up</button>
</div>
```

## Section 41.19: role="grid"

A grid is an interactive control which contains cells of tabular data arranged in rows and columns, like a table.

```
<table role="grid">
  <thead>
    <!-- etc -->
  </thead>
  <tbody>
    <!-- etc -->
  </tbody>
</table>
```

## Section 41.20: role="gridcell"

A cell in a grid or treegrid.

```
<table role="grid">
  <thead>
    <!-- etc -->
  </thead>
  <tbody>
    <tr>
      <td role="gridcell">17</td>
      <td role="gridcell">64</td>
      <td role="gridcell">18</td>
    </tr>
  </tbody>
</table>
```

## Section 41.21: role="group"

A set of user interface objects which are not intended to be included in a page summary or table of contents by assistive technologies.

```
<div role="group">
  <button role="button">Previous</button>
  <button role="button">Next</button>
</div>
```

## Section 41.22: role="heading"

A heading for a section of the page.

```
<h1 role="heading">Introduction</h1>
<p>Lorem ipsum...</p>
```

## Section 41.23: role="img"

A container for a collection of elements that form an image.

```
<figure role="img">
  
  <figcaption>This is my cat, Albert.</figcaption>
</figure>
```

## Section 41.24: role="link"

An interactive reference to an internal or external resource that, when activated, causes the user agent to navigate to that resource.

In the majority of cases setting an ARIA role and/or aria-\* attribute that matches the [default implicit ARIA semantics](#) is unnecessary and not recommended as these properties are already set by the browser.

Source - <https://www.w3.org/TR/html5/dom.html#aria-usage-note>

## Section 41.25: role="list"

A group of non-interactive list items.

```
<ul role="list">
  <li role="listitem">One</li>
  <li role="listitem">Two</li>
  <li role="listitem">Three</li>
</ul>
```

## Section 41.26: role="listbox"

A widget that allows the user to select one or more items from a list of choices.

```
<ul role="listbox">
  <li>One</li>
  <li>Two</li>
  <li>Three</li>
</ul>
```

Typically, you would use JavaScript to build the multiple-selection functionality.

## Section 41.27: role="listitem"

A single item in a list or directory.

```
<ul role="list">
  <li role="listitem">One</li>
  <li role="listitem">Two</li>
  <li role="listitem">Three</li>
</ul>
```

## Section 41.28: role="log"

A type of live region where new information is added in meaningful order and old information may disappear.

```
<ul role="log">
  <li>User 1 logged in.</li>
  <li>User 2 logged in.</li>
  <li>User 1 logged out.</li>
</ul>
```

## Section 41.29: role="main"

The main content of a document.

```
<!-- header & nav here -->
<div role="main">
  <p>Lorem ipsum...</p>
</div>
<!-- footer here -->
```

## Section 41.30: role="marquee"

A type of live region where non-essential information changes frequently.

```
<ul role="marquee">
  <li>Dow +0.26%</li>
  <li>Nasdaq +0.54%</li>
  <li>S&P +0.44%</li>
</ul>
```

## Section 41.31: role="math"

Content that represents a mathematical expression.

```

```

## Section 41.32: role="menu"

A type of widget that offers a list of choices to the user.

```
<ul role="menu">
  <li role="menuitem">New</li>
  <li role="menuitem">Open</li>
  <li role="menuitem">Save</li>
  <li role="menuitem">Close</li>
</ul>
```

## Section 41.33: role="menubar"

A presentation of menu that usually remains visible and is usually presented horizontally.

```
<ul role="menubar">
  <li role="menuitem">File</li>
  <li role="menuitem">Edit</li>
  <li role="menuitem">View</li>
```

```
<li role="menuitem">Help</li>
</ul>
```

## Section 41.34: role="menuitem"

An option in a group of choices contained by a menu or menubar.

```
<ul role="menubar">
  <li role="menuitem">File</li>
  <li role="menuitem">Edit</li>
  <li role="menuitem">View</li>
  <li role="menuitem">Help</li>
</ul>
```

## Section 41.35: role="menuitemcheckbox"

A checkable menuitem that has three possible values: true, false, or mixed.

```
<ul role="menu">
  <li role="menuitem">Console</li>
  <li role="menuitem">Layout</li>
  <li role="menuitemcheckbox" aria-checked="true">Word wrap</li>
</ul>
```

## Section 41.36: role="menuitemradio"

A checkable menuitem in a group of menuitemradio roles, only one of which can be checked at a time.

```
<ul role="menu">
  <li role="menuitemradio" aria-checked="true">Left</li>
  <li role="menuitemradio" aria-checked="false">Center</li>
  <li role="menuitemradio" aria-checked="false">Right</li>
</ul>
```

## Section 41.37: role="navigation"

A collection of navigational elements (usually links) for navigating the document or related documents.

```
<ul role="navigation">
  <li><a href="/">Home</a></li>
  <li><a href="/about">About</a></li>
  <li><a href="/contact">Contact</a></li>
</ul>
```

## Section 41.38: role="note"

A section whose content is parenthetical or ancillary to the main content of the resource.

```
<p>Lorem ipsum...</p>
<p>Lorem ipsum...</p>
<p role="note">Lorem ipsum...</p>
```

## Section 41.39: role="option"

A selectable item in a select list.



```
<ul role="listbox">
  <li role="option">Option 1</li>
  <li role="option">Option 2</li>
  <li role="option">Option 3</li>
</ul>
```

## Section 41.40: role="progressbar"

An element that displays the progress status for tasks that take a long time.

```
<progress role="progressbar" value="25" max="100">25%</progress>
```

## Section 41.41: role="radio"

A checkable input in a group of radio roles, only one of which can be checked at a time.

```
<div role="radiogroup">
  <input role="radio" type="radio" aria-checked="true"> One<br>
  <input role="radio" type="radio" aria-checked="false"> Two<br>
  <input role="radio" type="radio" aria-checked="false"> Three
</div>
```

## Section 41.42: role="region"

A large perceivable section of a web page or document, that the author feels is important enough to be included in a page summary or table of contents, for example, an area of the page containing live sporting event statistics.

```
<div role="region">
  Home team: 4<br>
  Away team: 2
</div>
```

## Section 41.43: role="radiogroup"

A group of radio buttons.

```
<div role="radiogroup">
  <input role="radio" type="radio" aria-checked="true"> One<br>
  <input role="radio" type="radio" aria-checked="false"> Two<br>
  <input role="radio" type="radio" aria-checked="false"> Three
</div>
```

## Section 41.44: role="row"

A row of cells in a tabular container.

```
<table>
  <thead>
    <!-- etc -->
  </thead>
  <tbody>
    <tr role="row">
      <!-- etc -->
    </tr>
  </tbody>
```

```
</table>
```

## Section 41.45: role="rowgroup"

A group containing one or more row elements in a grid.

```
<table>
  <thead role="rowgroup">
    <!-- etc -->
  </thead>
  <tbody role="rowgroup">
    <!-- etc -->
  </tbody>
</table>
```

## Section 41.46: role="rowheader"

A cell containing header information for a row in a grid.

```
<table role="grid">
  <thead>
    <!-- etc -->
  </thead>
  <tbody>
    <tr>
      <th role="rowheader">Day 1</th>
      <td>65</td>
    </tr>
    <tr>
      <th role="rowheader">Day 2</th>
      <td>74</td>
    </tr>
  </tbody>
</table>
```

## Section 41.47: role="scrollbar"

A graphical object that controls the scrolling of content within a viewing area, regardless of whether the content is fully displayed within the viewing area.

```
<div id="content1">Lorem ipsum...</div>
<div
  role="scrollbar"
  aria-controls="content1"
  aria-orientation="vertical"
  aria-valuemax="100"
  aria-valuemin="0"
  aria-valuenow="25">
  <div class="scrollhandle"></div>
</div>
```

## Section 41.48: role="search"

A landmark region that contains a collection of items and objects that, as a whole, combine to create a search facility.

```
<div role="search">
```

```
<input role="searchbox" type="text">
<button role="button">Search</button>
</div>
```

## Section 41.49: role="searchbox"

A type of textbox intended for specifying search criteria.

```
<div role="search">
  <input role="searchbox" type="text">
  <button role="button">Search</button>
</div>
```

## Section 41.50: role="separator"

A divider that separates and distinguishes sections of content or groups of menuitems.

```
<p>Lorem ipsum...</p>
<hr role="separator">
<p>Lorem ipsum...</p>
```

## Section 41.51: role="slider"

A user input where the user selects a value from within a given range.

```
<div
  role="slider"
  aria-valuemax="100"
  aria-valuemin="0"
  aria-valuenow="25">
  <div class="sliderhandle"></div>
</div>
```

## Section 41.52: role="spinbutton"

A form of range that expects the user to select from among discrete choices.

```
<input
  role="spinbutton"
  aria-valuemax="100"
  aria-valuemin="0"
  aria-valuenow="25"
  type="number"
  value="25">
```

## Section 41.53: role="status"

A container whose content is advisory information for the user but is not important enough to justify an alert, often but not necessarily presented as a status bar.

```
<div role="status">Online</div>
```

## Section 41.54: role="switch"

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

```
<select role="switch" aria-checked="false">
  <option>On</option>
  <option selected>Off</option>
</select>
```

## Section 41.55: role="tab"

A grouping label providing a mechanism for selecting the tab content that is to be rendered to the user.

```
<ul role="tablist">
  <li role="tab">Introduction</li>
  <li role="tab">Chapter 1</li>
  <li role="tab">Chapter 2</li>
</ul>
```

## Section 41.56: role="table"

A section containing data arranged in rows and columns. The table role is intended for tabular containers which are not interactive.

```
<table role="table">
  <thead>
    <!-- etc -->
  </thead>
  <tbody>
    <!-- etc -->
  </tbody>
</table>
```

## Section 41.57: role="tablist"

A list of tab elements, which are references to tabpanel elements.

```
<ul role="tablist">
  <li role="tab">Introduction</li>
  <li role="tab">Chapter 1</li>
  <li role="tab">Chapter 2</li>
</ul>
```

## Section 41.58: role="tabpanel"

A container for the resources associated with a tab, where each tab is contained in a tablist.

```
<ul role="tablist">
  <li role="tab">Introduction</li>
  <li role="tab">Chapter 1</li>
  <li role="tab">Chapter 2</li>
</ul>
<div role="tabpanel">
  <!-- etc -->
</div>
```

## Section 41.59: role="textbox"

Input that allows free-form text as its value.

```
<textarea role="textbox"></textarea>
```

## Section 41.60: role="timer"

A type of live region containing a numerical counter which indicates an amount of elapsed time from a start point, or the time remaining until an end point.

```
<p>  
  <span role="timer">60</span> seconds remaining.  
</p>
```

## Section 41.61: role="toolbar"

A collection of commonly used function buttons represented in compact visual form.

```
<ul role="toolbar">  
  <li></li>  
  <li></li>  
  <li></li>  
  <li></li>  
</ul>
```

## Section 41.62: role="tooltip"

A contextual popup that displays a description for an element.

```
<span aria-describedby="slopedesc">Slope</span>  
<div role="tooltip" id="slopedesc">y=mx+b</div>
```

Typically, the tooltip would be hidden. Using JavaScript, the tooltip would be displayed after a delay when the user hovers over the element that it describes.

## Section 41.63: role="tree"

A type of list that may contain sub-level nested groups that can be collapsed and expanded.

```
<ul role="tree">  
  <li role="treeitem">  
    Part 1  
    <ul>  
      <li role="treeitem">Chapter 1</li>  
      <li role="treeitem">Chapter 2</li>  
      <li role="treeitem">Chapter 3</li>  
    </ul>  
  </li>  
  <li role="treeitem">  
    Part 2  
    <ul>  
      <li role="treeitem">Chapter 4</li>  
      <li role="treeitem">Chapter 5</li>  
      <li role="treeitem">Chapter 6</li>  
    </ul>  
  </li>  
  <li role="treeitem">  
    Part 3  
    <ul>
```

```

    <li role="treeitem">Chapter 7</li>
    <li role="treeitem">Chapter 8</li>
    <li role="treeitem">Chapter 9</li>
  </ul>
</li>
</ul>

```

## Section 41.64: role="treegrid"

A grid whose rows can be expanded and collapsed in the same manner as for a tree.

## Section 41.65: role="treeitem"

An option item of a tree. This is an element within a tree that may be expanded or collapsed if it contains a sub-level group of treeitems.

```

<ul role="tree">
  <li role="treeitem">
    Part 1
    <ul>
      <li role="treeitem">Chapter 1</li>
      <li role="treeitem">Chapter 2</li>
      <li role="treeitem">Chapter 3</li>
    </ul>
  </li>
  <li role="treeitem">
    Part 2
    <ul>
      <li role="treeitem">Chapter 4</li>
      <li role="treeitem">Chapter 5</li>
      <li role="treeitem">Chapter 6</li>
    </ul>
  </li>
  <li role="treeitem">
    Part 3
    <ul>
      <li role="treeitem">Chapter 7</li>
      <li role="treeitem">Chapter 8</li>
      <li role="treeitem">Chapter 9</li>
    </ul>
  </li>
</ul>

```