

# Accessible Widgets

Eric Eggert, Knowbility & W3C

AccessU 2016, May 9th

# Eric Eggert

Germany

2013–today: W3C/WAI

2016–today: Knowbility

Translating WCAG to Human.

# Times

Day & Time	Room	Presenter	Topics
May 9th, 10:15-11:45	JBWS 165	Patrick Fox	Focus management, Announcing dynamic content, Tool tips, Modal dialogs, Dynamic table filtering and sorting
May 9th, 4:00-5:30	JBWS 163	Eric Eggert	Date picker, Time field, Combo box, Progress bar
May 10th, 10:15-11:45	JBWS 163	Eric Eggert	Slider, Accordion control, Tabs, Alerts
May 10th, 2:15-3:45	JBWS 163	<del>Patrick Fox</del> Eric Eggert	Wizard progress indicator, File selector and upload, Form validation, Search by location, Dynamic application page elements and flow

**Date picker, Time field,  
Combo box, Progress bar**

Context

# User Experience

Usability

**To ARIA  
or not to  
ARIA?**





**1. If you *can* use a native HTML5 element or attribute with the semantics and behaviour you require already built in, instead of re-purposing an element and adding an ARIA role, state or property to make it accessible, then do so.**

**2. Do not change  
native semantics,  
unless you really  
have to.**

# Example:

```
<h1 role="button">  
heading button</h1>
```

# Example:

```
<h1><button>heading  
button</button></h1>
```

**3. All interactive  
ARIA controls  
must be usable  
with the keyboard.**

# Example:

If using `role=button` the element must be able to receive focus and a user must be able to activate the action associated with the element using both the enter (on WIN OS) or return (MAC OS) and the space key.

**4. Do not use  
role="presentation"  
or aria-hidden="true"  
on a visible focusable  
element .**

**5. All interactive elements must have an accessible name.**



# ***All the Demos!***

<http://codepen.io/collection/nqBLjL/>

# ***Date Picker***

# HTML5 input type="date"

The input element with a type attribute whose value is "date" represents a control for setting the element's value to a string representing a date.

# HTML5 input type="date"

```
<label for="date">Date</label>  
<input type="date" id="date">
```



Global  
NEWS 

## Can I use

? Settings

x Feature: Date and time input types

# Date and time input types LS

Form field widget to easily allow users to enter a date, time or both, generally by using a calendar/time input widget.

Global	61.88%	+ 8.26%	= 70.14%
Germany	41.09%	+ 11.68%	= 52.77%
China	64.84%	+ 9.95%	= 74.79%



Notes

Known issues (1)

Resources (9)

Feedback

Older versions of Safari provide date-formatted text fields, but no real calendar widget.

Chrome, Opera, and Microsoft Edge also support the `datetime-local` type for both date and time.

There used to also be a `datetime` type, but it was [dropped from the HTML spec](#) since only Presto ever fully supported it.

<sup>1</sup> Partial support in Microsoft Edge refers to supporting `date`, `week`, and `month` input types, and not `time` and `datetime-local`.

<sup>2</sup> Partial support in iOS Safari refers to not supporting `min`, `max` or `step` attributes

<sup>3</sup> Some modified versions of the Android 4.x browser do have support for date/time fields.

⊖ date input

Accessibly supported	✓	○	—	—	—
Feature implemented	✓	✓	✗	✗	✗
Mapped	○	○	—	—	—
Name/Description			—	—	—
Keyboard	✓	✓	—	—	—

# Simplest Accessible Date Picker Widgets

A PEN BY Eric Eggert



Date

22/03/2016

Year Month Day

2017 May 9

DEVON think



# Simplest Accessible Date Picker Widgets

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Date

22/03/2016

Year Month Day  
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# Simplest Accessible D

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Date

Year

Month

Day

2018

August

31

# Simplest Accessible D

A PEN BY Eric Eggert

Date

Year

Month

Day

2018

August

31

# ARIA Enabled

<http://www.w3.org/TR/wai-aria-practices/#datepicker>

# Date Picker Examples

- [www.oaa-accessibility.org/examplep/datepicker1/](http://www.oaa-accessibility.org/examplep/datepicker1/)
- [freqdec.github.io/datePicker/demo/#demo-1](http://freqdec.github.io/datePicker/demo/#demo-1)
- [whatsock.com/tsg/Coding%20Arena/ARIA%20Date%20Pickers/ARIA%20Date%20Picker%20%28Basic%29/demo.htm](http://whatsock.com/tsg/Coding%20Arena/ARIA%20Date%20Pickers/ARIA%20Date%20Picker%20%28Basic%29/demo.htm)
- [blog.fastmail.com/2015/12/15/the-anatomy-of-a-good-date-and-time-widget/](http://blog.fastmail.com/2015/12/15/the-anatomy-of-a-good-date-and-time-widget/)

***Time Field***

# HTML5 input type="time"

```
<label for="time">Time</label>  
<input type="time" id="time">
```

⊖ time input

Accessibly supported	✓	○	—	—	—
Feature implemented	✓	✓	✗	✗	✗
Mapped	✓	○	—	—	—
Name/Description			—	—	—
Keyboard	✓	✓	—	—	—



# Or: HTML5 input w/ datalist

```
<label for="time">Time</label>  
<input type="text" id="time" list="times">  
  
<datalist id="times">  
  <option value="1pm">1pm</option>  
  <option value="2pm">2pm</option>  
  <option value="3pm">3pm</option>  
</datalist>
```

⊖ [datalist](#)

Accessibly supported	○	○	✓	○	—
Feature implemented	✓	✓	✓	✓	✗
Mapped	✗		✓		—
Keyboard	✓	✓	✓	✓	—

# Time Field Example

- [blog.fastmail.com/2015/12/15/the-anatomy-of-a-good-date-and-time-widget/](http://blog.fastmail.com/2015/12/15/the-anatomy-of-a-good-date-and-time-widget/)

# Select

```
<label for="time">Time</label>  
<select id="time">  
  <option value="1pm">1pm</option>  
  <option value="2pm">2pm</option>  
  <option value="3pm">3pm</option>  
</select>
```

# ***Combo Box***

aka Autocomplete

# Remember?

## HTML5 input w/ datalist

```
<label for="time">Time</label>
```

```
<input type="text" id="time" list="times">
```

```
<datalist id="times">
```

```
  <option value="1pm">1pm</option>
```

```
  <option value="2pm">2pm</option>
```

```
  <option value="3pm">3pm</option>
```

```
</datalist>
```

⊖ [datalist](#)

Accessibly supported	○	○	✓	○	—
Feature implemented	✓	✓	✓	✓	✗
Mapped	✗		✓		—
Keyboard	✓	✓	✓	✓	—

# Combo box Example

- [www.oaa-accessibility.org/example/10/](http://www.oaa-accessibility.org/example/10/)



***Progress Bar***

# HTML5 progress element?

```
<progress value="0.6" max="1">60%</  
progress>
```

```
<progress indeterminate>Loading</progress>
```

# Progress bar Example

- <http://getbootstrap.com/components/#progress-label>
- [www.oaa-accessibility.org/example/27/](http://www.oaa-accessibility.org/example/27/)

# Sources:

- Font: Lato
- Skull: Created by Andrew Cameron, from the Noun Project