Accessibility Tools for Web Developers

- Accessibility assessment
- WAVE
- Other accessibility checkers
- Coding issues
- Web Developer toolbar
- Browser developer tools
- Validators
- Screen readers
- More information
Accessibility Assessment

- **Purpose**
  - Produce an inventory of important sites, applications, pages, templates
  - Provide evidence that accessibility is being assessed and improved
  - Identify, summarize and prioritize accessibility problems
  - Track progress over time
  - Combine with assessment of content (usability, design, mobile, ...) - optional
  - Share your processes and ideas with other web developers

- **Suggestions**
  - Keep it simple
  - Format and content should be useful for you
Accessibility Assessment: Format & Contents

- Spreadsheet
- Rows
  - Web site/application home pages and other important or high-traffic pages
  - e.g. colleges, departments, forms (login/contact/request), content templates
- Columns
  - Site/page name, URL (optional: owner/maintainer, target users, usage)
  - Validator: WAVE: # of errors, warnings/alerts (optional: HTML, CSS, mobile)
  - Tests: keyboard, screen reader (optional: disable features, mobile devices)
  - To Do: describe key problems to fix
WAVE - Web Accessibility Evaluation Tool

- wave.webaim.org
- Enter a URL for summary of errors and alerts
  - Click red flag for details of errors (red) and alerts (yellow)
  - Click red/yellow icon to locate element in page
  - Click blue i icon for explanation
  - Click outline button to check nesting of headings
  - Click No Styles to view the page without CSS
  - Click Contrast to find low-contrast elements
- wave.webaim.org/toolbar - install the WAVE toolbar (Firefox add-on)
Other Accessibility Checkers

- http://www.w3.org/WAI/ER/tools/complete
- AChecker
- Cynthia Says
- Functional Accessibility Evaluator
- Firefox Accessibility Evaluation Toolbar
Some Common Coding Issues (Section 508)

- **Graphics** have *alt* (images, image inputs, image map areas, applets)
- **Tables** have *summary*, *caption*, *th* and *scope*, are simple (no nesting)
- **Forms** have *label*, *fieldset*, *legend*, instructions, clear error messages, client + server validation, easy to correct, usable via keyboard only
- **Language** of page/section is identified (e.g. `<html lang="en">`)
- **Abbreviations** explained using *abbr* tag
- **Frames** and links/elements requiring explanation have *title* attributes
Some Common Coding Issues (Continued)

- **Navigation** is simple and consistent
- **Navigation links** come after the main content, or provide a skip link
- **Color** is not the sole way to convey information
- **Contrast** is high (background vs. text colors)
- **Disabling** JavaScript, CSS or images does not make the page unusable
- **JavaScript events** are predictable (on focus, jump menus)
- **Plugin/Application** software link (e.g. Adobe Reader for PDFs)
Web Developer toolbar

- Firefox add-on or Chrome extension
- Disable CSS, JavaScript, images, cookies, popups, plugins, etc.
- Images > Outline Images, replace with alt attributes, etc.
- Forms > Outline form fields without labels
- Resize window
- Tools menu has links to multiple validators and checkers
  - To add WAVE, click Tools, Edit Tools, Add... Type WAVE, and add this URL: http://wave.webaim.org/report#
  - To add Mobile, use http://validator.w3.org/mobile/check?docAddr=
Browser Developer Tools

- Activation
  - Chrome and Internet Explorer: Press F12
  - Firefox: Install Firebug add-on
  - Opera: Enable Developer Mode

- Right-click to inspect element, view/change its HTML/CSS
- Resources tab (images, stylesheets, scripts, etc.)
- Network tab (file sizes, load times, HTTP errors)
- Console tab (JavaScript errors)
- Validate tab (Internet Explorer only)
Other Browser Accessibility Features

- View Page Source
- Page Zoom
- Text Size (IE) and Zoom Text Only (Firefox)
- Alternate Stylesheets
- Settings (enable/disable features)
Validators

- **W3C**
  - [http://validator.w3.org/](http://validator.w3.org/) - HTML
  - [http://jigsaw.w3.org/css-validator/](http://jigsaw.w3.org/css-validator/) - CSS
  - [http://validator.w3.org/checklink](http://validator.w3.org/checklink) - Links
  - [http://validator.w3.org/mobile/](http://validator.w3.org/mobile/) - Mobile
  - [http://validator.w3.org/unicorn/](http://validator.w3.org/unicorn/) - HTML, CSS, Feed, HTTP, I8N, etc.

- **Other**
  - [LinkChecker](http://linkchecker.net/) - Firefox add-on
  - [Check My Links](http://checkmylinks.sourceforge.net/) - Chrome extension
  - [Firefox Total Validator add-on](http://addons.mozilla.org/en-US/firefox/addon/firefox-total-validator)
Screen Readers

- **NVDA** - free and open source
- **JAWS** - commercial, free trial
- **Fangs Screen Reader Emulator** - Firefox add-on
More Information at CSU

- CSU Accessibility Guidelines: Accessibility Resources for Web Developers
- CSU Libraries: Website Accessibility
- ACNS: Making Accessible Web Pages