How to make websites accessible

Creating accessible web pages has never been more important than today. With the adoption of accessibility standards in the United States, Canada, the European Union, Australia, Japan, and other countries, designers and developers need to ensure that people with disabilities can access the contents of websites and web applications, as well as the authoring tools used to create them.

Accessibility refers to making websites and web products usable for people with visual, auditory, motor, and other disabilities. Examples of accessibility features for software products and websites include screen reader support, text equivalents for graphics, keyboard shortcuts, change of display colors to high contrast, and so on. Dreamweaver provides tools that make it accessible to use and tools that help you author accessible content.

Dreamweaver enables designers and developers to create accessible pages that contain useful content for screen readers and comply with federal government guidelines. For example, dialog boxes prompt you to enter accessibility attributes—such as text equivalents for an image—when you insert page elements. Then, when the image appears on a page for a user with visual disabilities, the screen reader voices the description.

Note: For more information about two significant accessibility initiatives, see the World Wide Web Consortium Web Accessibility Initiative (www.w3.org/wai) and Section 508 of the U.S. Federal Rehabilitation Act (www.section508.gov).

No authoring tool can automate the development process. Designing accessible websites requires you to understand accessibility requirements and make ongoing decisions about how users with disabilities interact with web pages. The best way to ensure that a website is accessible is through deliberate planning, development, testing, and evaluation.

Accessibility preferences options

To create accessible web pages, page elements need to be marked up with information for assistive technology, such as screen readers. For example, each image on a page should be given a text equivalent, called *alternative text* (*alt text*), that a screen reader voices to users in place of the image (**Figure 1**).

Figure 1 Displaying alternative text

Designers often overlook accessibility features such as alt text when creating websites, but Dreamweaver CS6 enables you to set preferences that prompt you to provide accessibility information as you're building the page. By activating options in the Preferences dialog box, you'll be prompted to provide accessibility-related information for form objects, frames, media, images, and tables as each element is inserted in a page.

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To set the accessibility preference, choose Edit > Preferences (Windows) or Dreamweaver > Preferences (Mac OS) and select the Accessibility category in the Preferences dialog box (**Figure 2**).

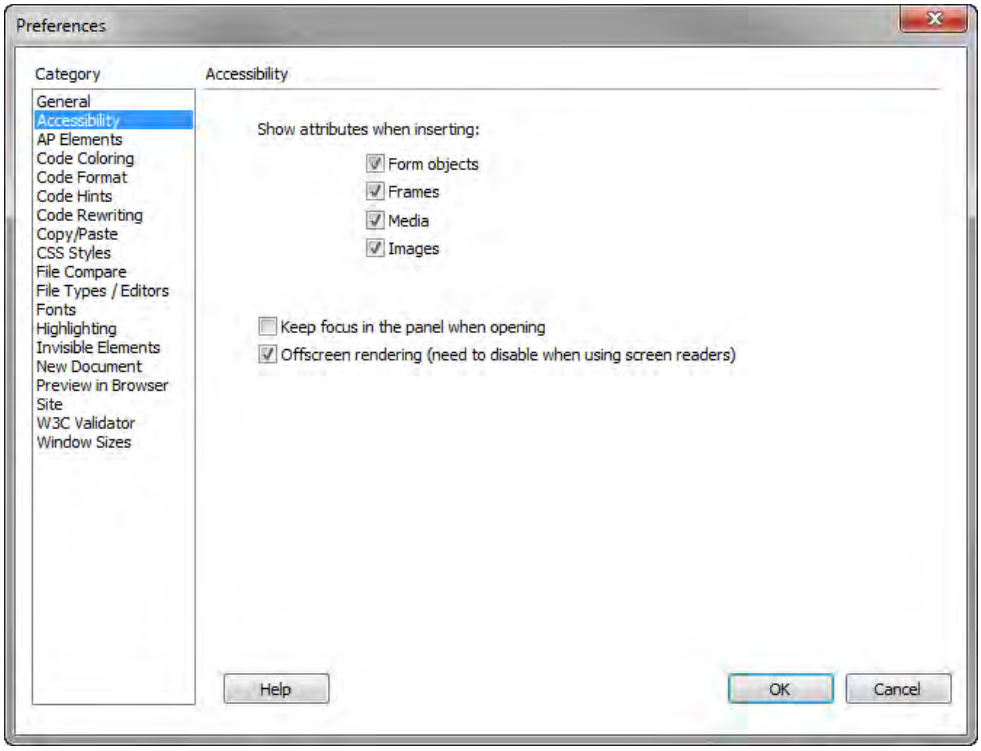

Figure 2 Dreamweaver Preferences dialog box, Accessibility category

For example, if you choose the Images option in the Show Attributes list, you are prompted (**Figure 3**) to provide the alt text equivalent and a description for each image as you insert it.

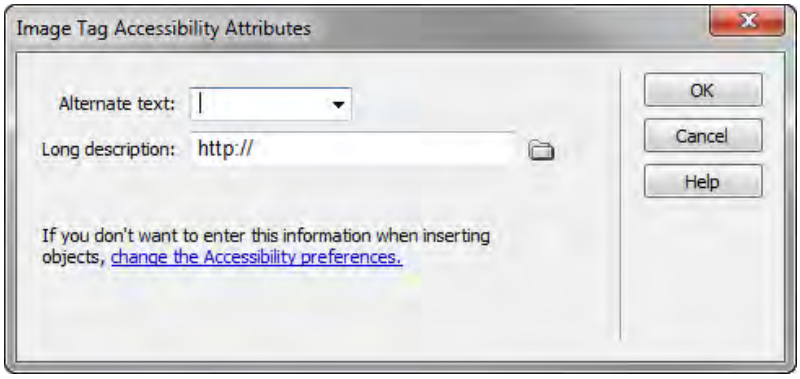

Figure 3 Image Tag Accessibility Attributes dialog box

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Creating accessible tables and forms presents some challenges, but Dreamweaver CS6 simplifies the process. For example, as you insert a data table within Dreamweaver CS6, you're immediately prompted to provide summary information, a caption, and the position of heading cells in the table (**Figure 4**). Incidentally, by adding identifying heading cells—an important but often overlooked design step—you make it significantly easier for assistive technology users to navigate tables.

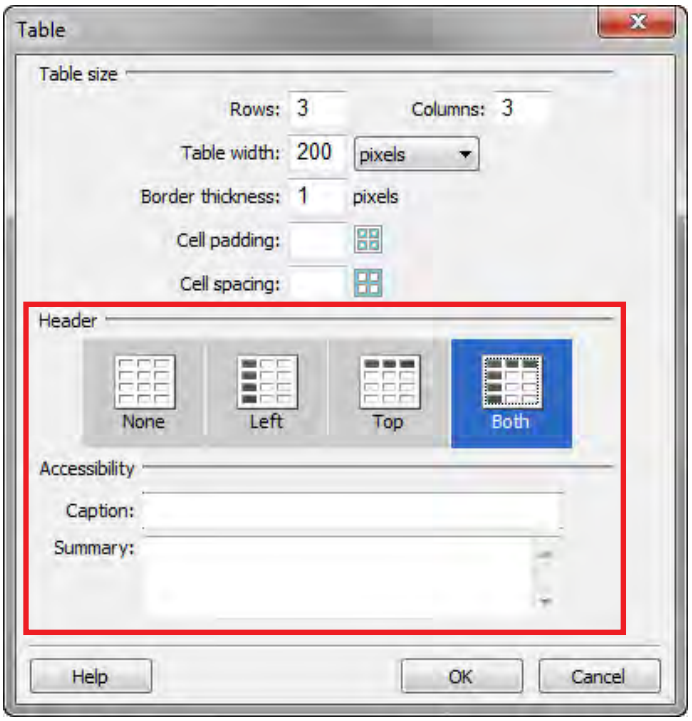

Figure 4 Table dialog box

Creating accessible forms is also easy with Dreamweaver CS6. When you select the Form Objects option in the Preferences dialog box, you're prompted to provide a label for each form object, along with a shortcut key and the tab order position (**Figure 5**). Specifying the label allows assistive technology users to understand the purpose of each form object as they complete the form.

Figure 5 Input Tag Accessibility Attributes dialog box

Accessibility validation

There are a number of third-party web accessibility evaluation tools that you can use to validate your completed websites. The W3C Web Accessibility initiative provides a comprehensive list of these tools at http://www.w3.org/WAI/RC/tools/.

Accessible templates

Dreamweaver CS6 includes several templates designed for accessibility. These templates are visually balanced, as well as accessible to people with disabilities (**Figure 6**). They provide you with a fast and easy way to create exciting, engaging, and accessible content.

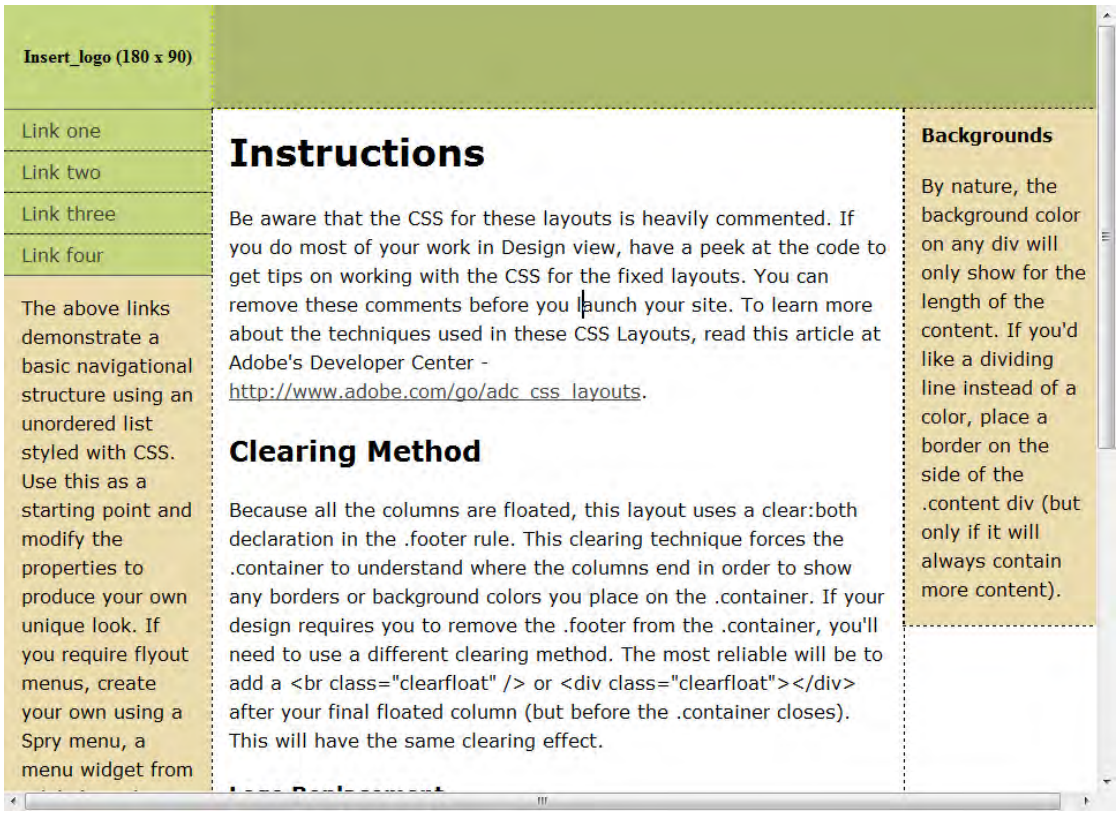

Figure 6 Dreamweaver sample HTML template

How to meet accessibility requirements

The W3C Web Accessibility Initiative has developed a quick reference list Web Content Accessibility Guidelines 2.0 requirements and techniques.

1. Text Alternatives: Provide text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language.
2. Time-based Media: Provide alternatives for time-based media.
3. Adaptable: Create content that can be presented in different ways (for example simpler layout) without losing information or structure.
4. Distinguishable: Make it easier for users to see and hear content including separating foreground from background.
5. Keyboard Accessible: Make all functionality available from a keyboard.

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6. Enough Time: Provide users enough time to read and use content.
7. Seizures: Do not design content in a way that is known to cause seizures.
8. Navigable: Provide ways to help users navigate, find content, and determine where they are.
9. Readable: Make text content readable and understandable.
10. Predictable: Make Web pages appear and operate in predictable ways.
11. Input Assistance: Help users avoid and correct mistakes.
12. Compatible: Maximize compatibility with current and future user agents, including assistive technologies.

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