



# COMPLIANCE COMPONENT

Modified: 10/26/06

DEFINITION	
<i>Name</i>	Graphics/Color
<i>Description</i>	Graphics/color refers to the visual presentation of some surfaces such as a wall, canvas, computer screen, paper, or stone to inform, illustrate, or entertain.
<i>Rationale</i>	<p>Graphics are visual elements often used to point readers and viewers to particular information. They are also used to supplement text in an effort to aid readers in their understanding of a particular concept or make the concept more clear or interesting.</p> <p>Color can be used to establish a mood, tone or emphasize one element or collection of elements with importance over other elements; show separation of content. Restrict use of color to accent the display content rather than identify an element.</p>
<i>Benefits</i>	<p>Graphics/color:</p> <ul style="list-style-type: none"> <li>• Are visual elements often used to point readers and viewers to particular information;</li> <li>• Supplement text to aid readers in their understanding of a particular concept or make the concept more clear or interesting;</li> <li>• Attract readers and draw their attention;</li> <li>• Used consistently across a Web site to enhance branding;</li> <li>• Allow users to respond quicker than with text-only based elements;</li> <li>• Used as icons or symbols acting as an interface for the user; and</li> <li>• Are among the primary methods of promoting goods or services.</li> </ul>
ASSOCIATED ARCHITECTURE LEVELS	
<i>Specify the Domain Name</i>	Interface
<i>Specify the Discipline Name</i>	Branding
<i>Specify the Technology Area Name</i>	Common Elements
<i>Specify the Product Component Name</i>	
COMPLIANCE COMPONENT TYPE	
<i>Document the Compliance Component Type</i>	Standard/Guideline
<i>Component Sub-type</i>	
COMPLIANCE DETAIL	
<i>State the Guideline, Standard or Legislation</i>	<p>Graphics/colors make pages interesting and visually appealing. There are many aspects to using graphics to make them Web appropriate.</p> <p><b>Copyright and Reserved Rights:</b> Must be respected and appropriate permissions sought before using someone else's work.</p> <p><b>Browser-safe colors:</b> Design to the 216 browser-safe (web safe) colors identified by their hexadecimal value such as #9cf or #99ccff (light blue) instead of #3385d7 (blue). Matched numbers in the pair values for Red (99), Green (cc) and Blue (ff) will be Web safe as compared to unmatched pairs (#3385d7).</p> <p><b>Colors/Backgrounds:</b> Create a color palette for all the colors you will use in your</p>

site. Use a style sheet to set the colors and background colors. While most computer graphic cards can render thousands or millions of colors, make sure the colors degrade gracefully if the user only has 256 colors set on their monitor. Be conservative in the use of color backgrounds when establishing print style sheets.

Web background colors offer a "zero-bandwidth" means to change the look of your pages without adding graphics. They also allow you to increase the legibility of your pages, tune the background color to complement foreground art, and signal a broad change in context from one part of your site to another.

Small tiled GIF or JPEG graphics can be used to form a background pattern behind the Web page. The use of large or complex background patterns causes longer downloads and are often more difficult to read. The graphic should be a small size, ideally no more than 100 x 100 pixels in size. JPEG background patterns load slightly faster than equivalent GIF graphics. The image can repeat both horizontally and vertically to fill the browser window.

No matter what color is used, contrast is the most important effect when choosing colors. Contrast is the value (intensity) difference between two areas; the value is the amount of lightness or darkness in a color. Contrast allows text and images (foreground) to stand apart from the background and be easily seen. The contrast of a light-colored background with a dark colored foreground (text and images) is most widely used and allows for accessibility.

You should not mix colors that are on the extreme ends of the color spectrum (e.g., red and blues). When spectrally extreme colors are mixed they quickly fatigue the eyes. Reds have long wavelengths, and they are focused farther back in the eye, unlike blues which have short wavelengths and are focused closer to the middle of the eye. This causes a sort of 'tug of war' in the eyes between focusing on the red and focusing on the blue.

**Graphic format:** JPEG (Joint Photographic Experts Group), GIF (Graphic Interchange Format) and PNG (Portable Network Graphic) are Web appropriate image formats for screen display. Because of the bandwidth issues surrounding networked delivery of information and because image files contain so much information, Web graphics are by necessity compressed.

JPEG compression uses a sophisticated mathematical technique called a discrete cosine transformation to produce a sliding scale of graphics compression. JPEG has capabilities of compressing the file and offering a range of optimization of lowest (1) to maximum (12) quality - this optimization results in smaller to larger file sizes, respectively.

The GIF file format uses a relatively basic form of file compression (Lempel Zev Welch, or LZW) that squeezes out inefficiencies in the data storage without losing data or distorting the image. The conventional (non-interlaced) GIF graphic downloads one line of pixels at a time from top to bottom, and browsers display each line of the image as it gradually builds on the screen. In interlaced GIF files the image data is stored in a format that allows browsers that support interlaced GIFs to begin to build a low-resolution version of the full-sized GIF picture on the screen while the file is downloading. Interlacing is best for larger GIF images such as illustrations and photographs. Interlacing is a poor choice for small GIF graphics such as navigation bars, buttons, and icons.

**Image maps:** Image maps offer a way to define multiple "live" link areas with a graphic on a Web page. Image maps have become a standard feature on Web sites because they offer an effective combination of visual appeal and, when used properly, space-efficient functionality. The graphic can be more than a menu; it helps define the signature "look" of pages within the Web site.

Redundant text links shall be provided for each active region of a server-

side image map. There are two basic types of image maps: "client-side image maps" and "server-side image maps." With client-side image maps, each "active region" in a picture can be assigned its own "link" (called a URL or "Uniform Resource Locator") that specifies what web page to retrieve when a portion of the picture is selected. HTML allows each active region to have its own alternative text, just like a picture can have alternative text. By contrast, clicking on a location of a server-side image map only specifies the coordinates within the image when the mouse was depressed. The ultimate selection of the link or URL must be deciphered by the computer serving the web page.

When a web page uses a server-side image map to present the user with a selection of options, browsers cannot indicate to the user the URL that will be followed when a region of the map is activated. Therefore, the alternate text link is necessary to provide access to the page for anyone not able to see or accurately click on the map.

**Sizing:** Graphics should be sized to 100% as used in an appropriate graphics editing software package such as Adobe Photoshop, Macromedia Fireworks, etc. instead of using the height and width attributes (to resize up or down). Optimize the graphic so that lesser numbers of a color palette are used in the graphic, the page will load more quickly using less bandwidth.

All your page graphics source tags (even small button or icon graphics) should include HEIGHT and WIDTH tags. These tags tell the browser how much space to devote to a graphic on a page, and they instruct the browser to lay out your Web page even before the graphics files have begun to download. Although this does not speed up downloading (only a faster data connection can do that), it does allow the user to see the page layout more quickly. The text blocks will fill out first and then the graphics files will "pour" into the allotted spaces. This means that the user can start to read your page while the graphics are downloading.

**Text Colors:** Avoid reliance upon color to identify an element's identity or purpose in an instruction, such as "select the red button to proceed." Convey a simple instruction without the user having to discern its color. Color-blind individuals may see an element but not know that it is either green or red.

Black text on a white (or very *slightly* tinted) background yields the best overall type contrast and legibility. Black backgrounds are significantly less legible than white backgrounds, even when white type is used for maximum contrast. Colored backgrounds can work as an alternative to plain browser-default gray if the colors are kept in very muted tones, and low in overall color saturation (pastels, light grays, and light earth tones work best).

**Text Equivalent:** A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content). A text equivalent means adding words to represent the purpose of a non-text element. This provision requires that when an image indicates a navigational action such as "move to the next screen" or "go back to the top of the page," the image must be accompanied by actual text that states the purpose of the image. This provision also requires that when an image is used to represent page content, the image must have a text description accompanying it that explains the meaning of the image. The title attribute can be used to enhance the visual and non-visual understanding of a graphic depicting its source, title, theme or meaning. Hovering or rolling over the graphic displays an interpretation of what the graphic is used for or is called.

Document Source Reference #

[http://dmd.mo.gov/guidelines/common\\_elements.pdf](http://dmd.mo.gov/guidelines/common_elements.pdf); <http://www.access-board.gov/sec508/guide/1194.22.htm>; and <http://www.webstyleguide.com/graphics/html.html>

Compliance Sources			
<i>Name</i>	Wikipedia	<i>Website</i>	<a href="http://en.wikipedia.org/wiki/Graphics">http://en.wikipedia.org/wiki/Graphics</a>
<i>Contact Information</i>	<a href="mailto:info-en@wikimedia.org">info-en@wikimedia.org</a>		
<i>Name</i>	WebStyleGuide	<i>Website</i>	<a href="http://www.webstyleguide.com/index.html">http://www.webstyleguide.com/index.html</a>
<i>Contact Information</i>			
KEYWORDS			
<i>List Keywords</i>	Copyright, reserved rights, permissions, GIF, JPEG, PNG, graphics, background color, alt tags, width, height, size, image, background, Web safe colors, attribute, 256 colors, 216 colors, RGB, color palette, photo, art, illustration, hexadecimal, image map, long description, longdesc, text equivalent, alt text, color, graphic, graphics, tile, and title.		
COMPONENT CLASSIFICATION			
<i>Provide the Classification</i>	<input type="checkbox"/> <i>Emerging</i>	<input checked="" type="checkbox"/> <i>Current</i>	<input type="checkbox"/> <i>Twilight</i> <input type="checkbox"/> <i>Sunset</i>
<i>Sunset Date</i>			
COMPONENT SUB-CLASSIFICATION			
<i>Sub-Classification</i>	<i>Date</i>	<i>Additional Sub-Classification Information</i>	
<input type="checkbox"/> <i>Technology Watch</i>			
<input type="checkbox"/> <i>Variance</i>			
<input type="checkbox"/> <i>Conditional Use</i>			
Rationale for Component Classification			
<i>Document the Rationale for Component Classification</i>			
Migration Strategy			
<i>Document the Migration Strategy</i>			
Impact Position Statement			
<i>Document the Position Statement on Impact</i>			
CURRENT STATUS			
<i>Provide the Current Status</i>	<input type="checkbox"/> <i>In Development</i> <input type="checkbox"/> <i>Under Review</i> <input checked="" type="checkbox"/> <i>Approved</i> <input type="checkbox"/> <i>Rejected</i>		
AUDIT TRAIL			
<i>Creation Date</i>	9/13/2006	<i>Date Approved / Rejected</i>	11/28/06
<i>Reason for Rejection</i>			
<i>Last Date Reviewed</i>		<i>Last Date Updated</i>	
<i>Reason for Update</i>			