Streamline Your Websites Page

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Squeezing the most efficient performance from your web pages is important. The benefits are universal, whether the site is personal or large and professional. Reducing page weight can speed up the browsing experience, especially if your visitors are using dial-up internet access. Though broadband access is the future, the present still contains a great deal of dial-up users. Many sites, ecommerce sites especially, cannot afford to ignore this large section of the market. Sites with a large amount of unique traffic may also save on their total monthly traffic by slimming down their web pages. This article will cover the basics of on-page optimization in both text/code and graphics.

Graphics

Graphics are the usual suspect on heavy pages. Either as a result of a highly graphic design, or a few poorly optimized images, graphics can significantly extend the load-time of a web page. The first step in graphics optimization is very basic. Decide if the graphics are absolutely necessary and simply eliminate or move the ones that aren't. Removing large graphics from the homepage to a separate gallery will likely increase the number of visitors who "hang around" to let the homepage load. Separating larger photos or art to a gallery also provides the opportunity to provide fair warning to users clicking on the gallery that it may take longer to load. In the case of graphical buttons, consider the use of text based, CSS-styled buttons instead. Sites that use a highly graphic design, a common theme in website "templates", need to optimize their graphics as best as possible.

Graphics optimization first involves selecting the appropriate file type for your image. Though this topic alone is fodder for far more in depth analysis, I will touch on it briefly. Images come in 2 basic varieties, those that are photographic in nature, and those that are graphic in nature. Photographs have a large array of colors all jumbled together in what's referred to as continuous tone. Graphics, such as business logos, are generally smooth, crisp and have large areas of the same color. Photographs are best compressed into "JPEGs". The "Joint Photographic Expert Group" format can successfully compress large photos down to very manageable sizes. It is usually applied on a sliding "quality" scale between 1-100, 1 being the most compressed and lowest quality, 100 the least and highest quality. JPEG is a "lossy" compression algorithm, meaning it "destroys" image information when applied, so always keep a copy of the original file. Graphics and logos generally work best in the "GIF", or more recently, the "PNG" format. These formats are more efficient than JPEGs at reducing the size of images with large areas of similar color, such as logos or graphical text.

A few general notes on other media are appropriate. Other types of media such as Flash or sound files also slow down a page. The first rule is always the same; consider whether they are absolutely necessary. If you are choosing to build the site entirely in Flash, then make sure the individual sections and elements are as well compressed as possible. In the case of music, I will admit to personal bias here and paraphrase a brilliant old saying, "Websites should be seen and not heard." Simply, music playing in the background will not "enhance" any browsing experience.

Text and Code

The most weight to be trimmed on a page will come from graphical and media elements, but it is possible to shed a few extra bytes by looking at the text and code of a web page. In terms of actual text content, there may not be much to do here. A page's content is key not only to the user's understanding but also search engine ranking. Removing or better organizing content is only necessary in extreme situations, where more than page weight is an issue. An example might be a long, text heavy web page requiring a lengthy vertical scrolling to finish. Such a page is common on "infomercial" sites, and violates basic design tenants beyond those related to page weight.

Code is a different story. A website's code can be made more efficient in a variety of fashions. First, via the use of CSS, all style elements of a web page can now be called via an external file. This same file can be called on all a

site's pages, providing for a uniform look and feel. Not only is this more efficient; it is also the official recommendation from the W3C. The same may be said of XHTML and the abandonment of "table" based layout. Tables, though effective for layout, produce more code than equivalent XHTML layouts using "div" tags. Where a minimum of 3 tags are required to create a "box" with content in a table, only 1 is needed using divisions. Using XHTML and CSS in combination can significantly reduce the amount of "on page" code required by a web page. A final, relatively insignificant trick is the removal of all "white space" from your code. Browsers don't require it; it is primarily so authors can readily read and interpret the code. The savings are minimal at best, but for sites that receive an extreme amount of traffic, even a few saved bytes will add up over time.

Conclusions

Target images and media files first when seeking to reduce the weight of a page. They are the largest components of overall page weight and simply removing them can significantly reduce total weight. The images that remain should be optimally compressed into a format appropriate for their type, photos or graphics. Avoid huge blocks of text that cause unnecessary vertical scrolling. Organize the site more efficiently to spread the information across multiple pages. Adopt XHTML and CSS to reduce the size of the on-page code, and call the CSS externally. These tips should help reduce the size of your pages and speed their delivery to your viewers.