CHAPTER 24

Introduction to DHTML

Dynamic HTML (DHTML) refers to web pages that move, animate or respond to the user after downloading to the browser. Through DHTML, users get a more engaging and interactive web experience without constant calls to a web server or the overhead of loading new pages or large applets.

DHTML works through a combination of:

- HTML 3.2
- JavaScript—the web's standard scripting language
- Cascading Style Sheets (CSS)—styles dictated outside a document's content
- Document Object Model (DOM)—a means of accessing a document's individual parts

Although HTML pages using one or more of these technologies can be considered "dynamic," the term DHTML generally refers to all of these technologies used together.

Both Netscape 4.0 and Internet Explorer 4.0 support these technologies, but in different ways. This means that web designers whose audience consists of both Internet Explorer and Netscape users (that's just about all of us) must create DHTML pages catering to two different implementations of DHTML. A standardized DHTML is in the works, but as of this writing, we're still waiting for the standards to be finalized and for browser makers to implement those standards.

This chapter provides an introduction to DHTML. Before creating your own DHTML pages you may want to read Chapter 22, *Introduction to JavaScript*, and Chapter 23, *Cascading Style Sheets*. Read on if you are simply looking for an explanation of DHTML and its uses.

Advantages to Using DHTML

Small file sizes

DHTML files are small compared to other interactive media such as Flash or Shockwave (see Chapter 21, *Interactivity*). Therefore they have a shorter download time and take up less bandwidth.

Supported by both major browser manufacturers

Both Microsoft and Netscape currently support DHTML in some shape or form.

DHTML will be a standard

The World Wide Web Consortium or the W3C is currently implementing standards for DHTML technologies. It has already released preliminary specifications for DOM and CSS (go to *http://www.w3c.org* for more information). These specifications lay the groundwork for more complete standards to come, which both Netscape and Microsoft have pledged to support.

No plug-ins necessary

Plug-ins are not needed to view DHTML files. A visitor to your site needs only a Netscape 4.0 browser or an Internet Explorer 4.0 browser. This puts fewer requirements on your audience; they don't need to download special software to view your site.

Doesn't require a Java Virtual Machine (JVM)

DHTML isn't a Java technology. DHTML provides many functions that can otherwise be attained through Java—a compiled, object-oriented computer language. Pages that contain Java applets require the user to wait for the JVM to start and for Java byte code to download, which takes quite a bit of time and bandwidth. Although Java is good for some applications, DHTML can be an attractive alternative for animations, design issues, and simple tasks.

Disadvantages

Only new browsers support DHTML

DHTML is only supported by Netscape 4.0 or higher and Internet Explorer 4.0 or higher. Many people are still using older versions of both browsers. Web designers using DHTML must choose to provide content for older browsers or eliminate a significant portion of their audience.

Netscape and Microsoft have different DHTML implementations

Two different implementations make creating a DHTML document tedious and complicated task. More information is given in the section called "Browser Differences."

DHTML creation has a sharp learning curve

Because DHTML requires at least partial knowledge of many different web design concepts (HTML, JavaScript, CSS, and DOM) it may take some review before you begin creating DHTML content. DHTML tools go a long way towards eliminating this problem.

Unprotected source code

You may not sweat someone lifting your HTML code, but you may be more leery about giving away your hand-written DHTML application.