DECIPHERING THE WEB

A resource for print designers

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Today's designers are expected to create content that will appear both on the printed page and on screens everywhere. With the Adobe® Creative Suite® 4 family of software, designers can rely on familiar tools and a consistent user experience to design, develop, and publish content virtually anywhere.

The web has obviously redefined the way that people, businesses, and organizations access and distribute information. As such, just about every single designer is faced with the challenge of applying their design and production skills to the digital medium. Initially, this can be a frustrating experience on a variety of levels:

- **The web is dynamic.** Unlike print—which is static—you're designing for a dynamic medium, meaning that content is interactive and changes constantly, even automatically.
- **The language is different.** Traditional designers may be familiar with PDF, TIFF, or DOC (Microsoft Word) files, but on the internet, file types like SWF and PNG, and technologies like JavaScript, HTML, CSS, and AJAX, are totally foreign.
- **The tools are unfamiliar.** Designers used to applications like Adobe Photoshop®, Adobe Illustrator®, and Adobe InDesign® software may be unfamiliar with web design applications like Adobe Fireworks®, Adobe Flash® Professional, and Adobe Dreamweaver® software — and in many cases, the writing of code.

While there are certainly differences between print and the web, there are equally many similarities. In addition, the web has matured over time, and creation tools are more powerful and easier to use. In other words, learning how to design and produce web content might not be as hard as you might think, for the following reasons:

- **Good design is good design.** The principals of good design apply equally to any medium. The very same skills you have learned in order to effectively communicate a message or an idea in print can be used to create compelling web content for viewing on screen.
- **Web standards have emerged.** Technologies like HTML and CSS for layout, and Flash for video have standardized the web, allowing designers to define expectations and making for a more consistent end user experience.
- **You already know the software.** The design software you use today can give you a head start in creating digital content, and because they're part of Adobe Creative Suite, they integrate well with web-specific design and development software.

What you will learn

This document provides easy-to-understand information about the world wide web as it relates to design and production from the point of view of someone coming from a print-design background. Focusing primarily on the design of content to be viewed via a web browser on a computer screen, this document will discuss the process of designing a website, the standards employed in web design and production, and the Adobe software appropriate for these tasks.

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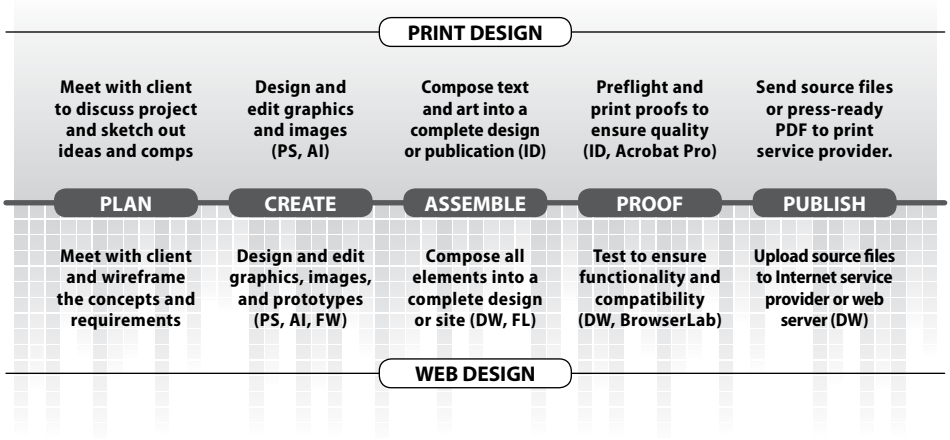
Adobe

The web design process

Traditionally, the publishing process involved printing art on paper, and designers learned how to create and deliver the necessary files to ensure quality results. For example, designers learned how to create high-resolution images from Photoshop, how to create content from Illustrator, and how to assemble that content in InDesign. They learned about different printing processes such as using a variety of paper stocks, process and spot colors, and more. Designers then learned how to submit their digital files to printers and prepress houses and how to create high-quality print-ready PDF files as well.

When it comes to the web, publishing content does not involve printing. Rather, other people view the content which you created on your computer screen on their computer screen. The question is, how does that happen? How does your art suddenly appear on everyone else's screen? As with print, there's a process for delivering digital content. In fact, the process used to publish to print isn't that different to the process of publishing to the web. What is different is the way the content is expressed (for example, interactively), how the content is assembled, the file formats used, and how those formats are ultimately delivered.



1. PLAN: Define site requirements

Any successful project starts with careful planning, and more importantly, established content and goals. Just as you would never sit down to design a brochure without knowing about the content, the size, the number of pages, or who the brochure was targeted for, you wouldn't want to start designing a website unless you understood its purpose, the kind of content it was going to deliver, and the goals for what the site should accomplish.

Besides budget and time constraints, careful planning and understanding of how people will ultimately view and use the site will impact decisions on what browsers you need to support, what technologies you will need to employ (i.e., Flash, CSS) and whether you'll require the services of a developer to add more advanced functionality to your site (i.e., tying the site into a database for dynamic content generation). During the planning stage, some designers will draw up a site wireframe, or a table of contents, that defines the basic structure or navigation of a site. More so than in print, where a designer is usually focused on the visual appearance of the final piece, web design requires a solid understanding of the site structure and technical requirements first — the look and feel of the site comes later.

2. CREATE: Design the look and feel

For designers, it's normal to sketch ideas on paper before implementing them digitally. A designer would then implement that design digitally. In most cases, a new document would be created in InDesign, and then individual elements would be brought in from Photoshop or Illustrator as needed. In effect, the creation of content and the assembly stage are often one and the same.

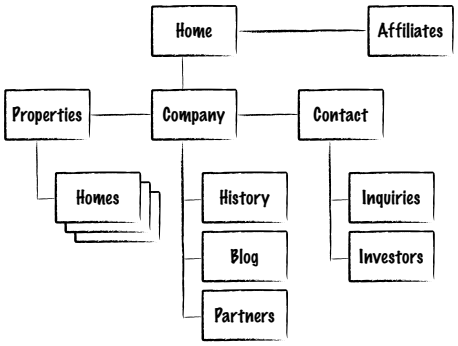
The Designer-Developer Relationship

In the world of print design, it's not uncommon for a designer to work with others to complete an aspect of the project. For example, print service providers may perform color correction, proofs, and ultimately, any necessary prepress or production work.

Likewise, a web designer may require the services of a web developer to write the necessary code for advanced functionality or interactivity. Developers (like print service providers) are often called upon to complete the Assembly, Proofing, and Publishing steps.

Tools such as Fireworks, Dreamweaver, Flash Professional, and Flash Catalyst* offer powerful features that can help designers generate code automatically, but ultimately, these tools, and their integration with design-centric applications like Photoshop, Illustrator, and even InDesign make it possible for designers to reliably pass their ideas and concepts on to developers.

More information on these technologies can be found in *The Adobe Toolset*.



At the start of a web project, it's more important to figure out the overall site structure and technical requirements than figuring out how the site design will ultimately look.

Learn how to create wireframes in Fireworks CS4 using pages, layers, grids, guides, smart guides, and rich symbols.

You can create images and graphics for the web using tools you're already familiar with. Photoshop and Illustrator files can be opened (or imported) by Fireworks, Dreamweaver and Flash Professional, maintaining fidelity.

When approaching web design, most designers start out with a visual mockup that is created in either Photoshop or Illustrator. This design is static and non-functional, and acts as a blueprint for what the final website design will look like. Designers with experience in web design find it limiting to work with static mockups, especially when you consider the dynamic nature of web sites. Even if a designer can visualize the interactive experience of a web page, it becomes difficult to explain it to a client when trying to get the design approved.

A website prototype is a functional mockup that allows designers and clients to get a better understanding of the design and the functionality of a web site. One of the benefits of using tools like Fireworks for prototyping is that it offers the ability to simulate functionality (clicking buttons to switch pages, etc). When creating sites with Flash, designers may make certain aspects functional to help clients have a better idea of the interaction and usability of the site. With Flash and Flex application development, designers can use Adobe Flash Catalyst™ software* to easily add functionality to prototypes, giving both the design and the client a better idea of how the site will work and how the intended consumer can interact with it.

ADOBE TV Learn how to add interactivity to wireframes in Fireworks CS4 by creating a navigation bar and using slices and hotspots.

Tools like Fireworks enable designers to develop the look and feel of a web design while simultaneously creating a functional prototype with working text fields and buttons. It provides a better way to present designs to clients and offers a head start when building web pages.

ADOBE TV Provide functional prototypes to clients by exporting them to web pages, interactive PDFs, AIR applications, or Flash presentations.

Another reason why prototypes are created is because on the web, content may be dynamically generated, and the text or images may simply be placeholders. The prototype helps the designer identify the rules for how elements should look and how interactions should behave. Graphical elements from a prototype can sometimes be used in the next step, assembling web content, which is one of the benefits of using tools like Fireworks and Flash Catalyst*.

3. ASSEMBLE: Build the pages

When designing for print, once you get approval for a design, you're pretty much ready to go. All the pieces are in place, the art is laid out correctly in place in an application like InDesign, and all that's required is a final check that all art is correct, all images are corrected and hi-res, and you send a high-quality PDF off to the print service provider.

Just as you can use InDesign to layout images, graphics, and text into composed documents, you can use Dreamweaver to perform similar tasks for entire web sites.

On the web however, once a design prototype is approved, the production work begins. If the prototype is a static image created with Photoshop or Illustrator, individual design elements (i.e., logos, backgrounds, navigation buttons) are sliced up and exported as individual elements, which are then assembled in Dreamweaver (similar to how design elements are incorporated into a layout in InDesign).

One of the benefits of using design tools like Fireworks or Flash Catalyst* for prototyping is that those applications can easily convert images and graphics into functional code. For example, buttons or sliders already work when your web pages are built. More importantly, when working with a developer, this ensures that design fidelity and intent are preserved throughout the development process. A detailed explanation about how web pages are built can be found in *The way of the web*.

ADOBE TV Create a web page with standards-based HTML and CSS. Insert slices, avoid overlaps, and learn techniques for using divs and exporting text.

4. PROOF: Test functionality and compatibility

In the world of print, it's rare that a designer or a client would authorize final printing without seeing some kind of hard or soft proof. While the same concept applies to web design, there are more variables to keep in mind before publishing a website. For example, a website may display differently across different web browsers (i.e., Internet Explorer, Safari, Firefox), or if a website contains dynamically-generated content, you need to ensure that the scripts are functional and accessing the correct data.

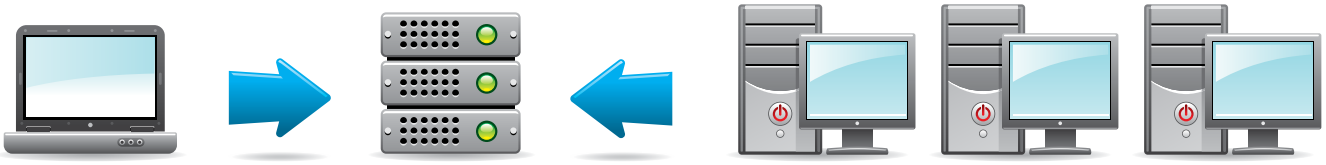
Traditionally, web designers spent a lot of time testing their content on different computers with different browsers. However, tools like Dreamweaver offer features like Live Preview to help ensure scripts run correctly, and services such as Adobe BrowserLab* make it easy to preview content as it would appear across a variety of popular web browsers. You can find details on these features in *The Adobe Toolset*.

5. PUBLISH: Upload the files to the web

Web content lives on web servers. There are domains (i.e., adobe.com, nytimes.com) that are registered which are like addresses for houses. In theory, you could host information from your own computer, but that would mean if you ever turned off your computer, no one would be able to see your website. More importantly, having your computer accessible via the internet could pose a security risk to your data, and the speed that others could connect to your website would be limited to the speed of your own internet connection.

Instead, people host their websites with hosting providers (i.e., GoDaddy, Jumpline, MediaTemple). These computers are usually backed up constantly, are mirrored (so if one computer goes down, another is ready to take over immediately), are secure, and probably most importantly, they are connected to the internet via high-speed connections and they can support a large volume of website visitors. This allows people to view the content on your website quickly and reliably.

Publishing a website



When you're ready to publish your website, you copy the files from your computer to an ISP or Internet Server Provider.

The ISP stores (hosts) your files on powerful web servers that are always connected to the internet via high-speed connections.

Anyone surfing the internet can use a browser to enter a URL, better known as a web address, and are connected to the ISP web server, where they can access and view your website.

Publishing your website means copying all of the files from your own computer onto your web server. Once your content is on the web server, anyone can view it immediately. The most common way files are copied from your computer to a web server is through something called FTP (File Transfer Protocol). A variety of applications (free and pay for) can perform basic FTP functions, and the experience is no different than copying files from one folder to another on your computer desktop (the Finder in Mac OS or the Explorer in Microsoft Windows). Some web design applications, like Dreamweaver have FTP functionality built-in and can automatically manage the process of uploading content to your web server for you.

One of the great things about web design is how much control you have over the publishing process. If you find a typo, you can fix it—and publish it—literally within seconds. Dreamweaver has the tools to manage the assembly of web pages, and to publish the entire site as well. It's easier than you think.

Once you set up an account with a web hosting provider, they will provide you with information on how to access your web server. Alternatively, if you're creating web content for a company where an IT department manages this process, or if you're designing web content for a client, you may just pass your completed files to them, and they will manage the process of copying the files to their web servers.

The way of the web

ADOBE TV Learn how to use Dreamweaver CS4 with tutorials selected by experts at Adobe — from Getting Started for beginners, to New Features, Workflows and Overviews.

We flip through the pages of books, magazines, and newspapers every day, and we have a general idea about how those pages are actually created. Each page may consist of several elements including vector artwork, raster images, and text. Designers may create these elements in applications like Illustrator, Photoshop, or Microsoft Word, and then compose all of the elements into a single page using page layout software like InDesign.

We also surf the web every day, navigating from page to page, having no idea how a web page works. On a basic level, a web page isn't that much different from the printed page. Designers may create elements in Illustrator, Photoshop, or Fireworks, and then compose those elements into a single page using an application like Dreamweaver.

Deconstructing a web page

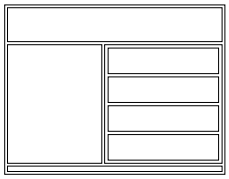
Unlike a PDF which contains all the elements on a page within a single file, a web page is constructed using a variety of different files — HTML for content, CSS for style and layout, and individual images and files. When you open an HTML page on the web, the browser combines all of these elements on-the-fly onto your screen for viewing.

Graphics

Images are broken up, or "sliced" into individual graphics for placement onto a web page. These graphics can come from Photoshop, Illustrator, or Fireworks, and can be in a variety of formats such as GIF, JPG, or PNG.

Navigation

The content on a web page can also be interactive and dynamic. A navigation bar that pops open with additional options when a user moves their mouse over it is an example of how a designer can take advantage of the digital medium to reduce clutter or complexity.



Layout

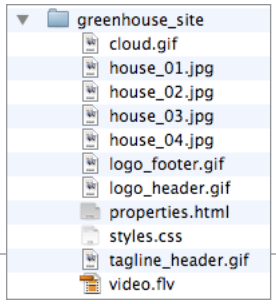
ADOBE TV Web pages are broken down into divisions, or DIVs, which define distinct areas for different types of content. For example, a page may contain a DIV for a header, for a sidebar, or a footer. DIVs can also be nested within each other, similar to how you might use groups in Illustrator or InDesign.

Video/Flash

ADOBE TV Video clips or Flash animations can be placed on a web page just like an image can. The designer can specify whether clips play automatically as a page loads or whether playback controls are visible on the page.

Text

ADOBE TV The appearance of text is usually defined by CSS (Cascading Style Sheets). Similar in concept to Paragraph or Character styles in programs like InDesign or even Word, you define appearances for tags like "headline" or "body".



File Structure

On a web server, a web page would look like a collection of several files (left), including the HTML page itself, a CSS document, and any necessary images or video clips.

The dynamic nature of the web

One of the most important concepts a designer needs to understand about the web is that all web pages are dynamic — they are built on-the-fly as someone requests to view them. When a person enters the address for your website, their web browser reads and displays the page, using the images and instructions you've provided.

Unlike print publications, which are often delivered as a single all-inclusive PDF document, a website is comprised of many different files. Every page, image, or video clip exists as a separate file. In addition, support files that control the appearance and functionality of your website, such as CSS files and scripts, also exist as separate files. All of these files are stored on your web server, so that at any time, your website can be viewed by others.

Entire websites can also be built using Flash, which is able to incorporate an entire multi-function website into a single file as well.

The content of a web page itself may also be dynamic. For example, you may have a widget that displays a company's current stock price, or the weather forecast for a particular location. Alternatively, you can add code to a web page to automatically detect what kind of browser the viewer is using. This type of functionality allows you to display a graphically-rich web page for someone viewing your site on a desktop computer, and display the exact same page in a text-only format that will download quickly for someone viewing your site from a mobile device.

Using CSS, the exact same HTML page could automatically be displayed differently on a desktop computer (left) or a mobile device (right).

Web standards

Originally, the web was built for scientists as a way to exchange information. It wasn't long before people realized that the web offered tantalizing benefits in the form of marketing, communications, and sales—literally changing business models overnight. Initially, designers built websites using tricks and hacks—using images in place of text to achieve desired looks. In essence, these designers were able to build sites that may have looked nice, but weren't very functional or practical. Images needed to be updated manually, so sites weren't updated nearly as often. The use of images also made it extremely difficult to generate content dynamically. Most importantly, images aren't searchable—meaning a site based on images is invisible to powerful search engines like Google.

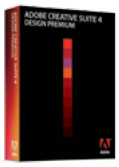
By adopting standards like CSS, designers can control the appearance of their websites without being forced into image-heavy designs. Perhaps more importantly, designers can define a set of rules for the appearance of an entire site, letting the client actually update the content. This allows the content of a site to be updated constantly, remain fresh and relevant, and provide a vehicle for marketing or business that truly takes advantage of the power of the internet. Such websites are often referred to as "Web 2.0", as they allow users to interact with others or to change website content.

The key to the success of Web 2.0 is the adoption of web standards—not just by designers, but also by developers and probably most importantly, by those who create the technology we use every day. For designers and developers, that means companies like Adobe who create the design and development software. For consumers today, that means companies like Microsoft and Apple, who create computers and web browsers, as well as companies like Nokia, Samsung, and Sony who manufacture mobile handsets, televisions and other devices that are increasingly being used to view content online.

Visit the How To Channel on Adobe TV to watch Getting Started videos for each Adobe product.

The Adobe toolset

Adobe Systems Incorporated offers business, creative, and mobile software solutions that revolutionize how the world engages with ideas and information. Following is a comprehensive list of software published by Adobe that can assist any designer in the creation and delivery of web content.



Adobe Creative Suite 4 Design Premium

The ultimate toolkit for today's designer, Adobe Creative Suite 4 Design Premium enables you to express yourself in exciting new ways and deliver rich creative experiences across print, web, interactive, and mobile media. Creative Suite 4 Design Premium contains the following products: InDesign CS4, Photoshop CS4 Extended, Illustrator CS4, Flash CS4 Professional, Dreamweaver CS4, Fireworks CS4, and Adobe Acrobat® 9 Pro software. Also included are Adobe Bridge CS4, Adobe Device Central CS4, and Adobe Version Cue® CS4 software.

For more information on Adobe Creative Suite 4 Design Premium, visit http://www.adobe.com/products/creativesuite/design.

Adobe InDesign CS4

While many think of is primarily as an application for print layout, InDesign can be used to create interactive documents as well. With InDesign CS4, designers can add interactive elements like buttons, page transitions and hyperlinks to their document and then export to PDF or SWF which can then be distributed via a website or email. If you want to create a more complex interactive document, InDesign CS4 gives you the option to export your layout to .xfl which can then be opened with Flash CS4 Professional to add more advanced interactivity and animation. Alternatively, you can hand the file off to a developer to do that work in Flash for you.

For more information on Adobe InDesign CS4, visit http://www.adobe.com/products/indesign.

Adobe Photoshop CS4 Extended

An essential piece of software in any designer's toolbox for editing and correcting digital images, Photoshop CS4 Extended can also be used to design individual web graphics such as buttons or banners, and static web page mockups. Designers can use the Animation panel to create animated GIF content, and the Save for Web & Devices feature supports GIF, JPG, and PNG export formats. Photoshop CS4 Extended also supports the ability to import, export, and edit video content. Designers using Dreamweaver for website layout and management can drop native Photoshop files directly into web layouts for easier design and editing.

For more information on Adobe Photoshop CS4 Extended, visit http://www.adobe.com/products/photoshop/photoshopextended.

Adobe Illustrator CS4

A designer's best friend, Illustrator CS4 can be used to design individual web graphics such as buttons or banners, static web page mockups, and general art creation. Since graphics are vector based, art that you create in Illustrator can easily be brought into applications like Flash Professional and Flash Catalyst*. Using the Save for Web & Devices feature, you can easily export art in a variety of standard web formats including GIF, JPG, PNG, SWF, SVG, and FXG.

For more information on Adobe Illustrator CS4, visit http://www.adobe.com/products/illustrator.

Adobe Flash CS4 Professional

Flash CS4 Professional software is the industry-leading authoring environment for creating engaging interactive experiences. With the latest release, Adobe added an easier-to-use timeline and predefined motion presets, enabling designers to easily create animations. However, if you're looking to design a complete website with Flash, you'll likely need to become familiar with a programming language called ActionScript®. If you're not interested in learning how to write code, the integration between Flash Professional and Photoshop, Illustrator, Fireworks, and InDesign means that you can design in the application you're most comfortable with, being assured that your design expression and fidelity will be preserved when your content is opened with Flash Professional by your developer.

For more information on Adobe Flash CS4 Professional,
visit http://www.adobe.com/products/flash.

Adobe Dreamweaver CS4

One of the industry's leading web authoring tools, Dreamweaver CS4 is used to design, develop, and maintain standards-based websites and applications. With a suite of tools geared towards the production of entire websites, Dreamweaver acts as the hub, or center of your web design toolset. In many ways, Dreamweaver is to web design what InDesign is for print design. With Dreamweaver, you define the structure and presentation of websites, create and build web pages, and even publish content directly to the web.

For more information on Adobe Dreamweaver CS4,
visit http://www.adobe.com/products/dreamweaver.

Adobe Fireworks CS4

Originally built as a powerful image optimization tool, Fireworks has evolved to become a great tool for rapidly prototyping websites and application interfaces. With a robust toolset that supports open standards like HTML and CSS, designers can create functional prototypes to get a better idea of what the final website will look like, and how it will work. This also makes it easier to get client approval and making it faster to take websites from concept to completion. Graphics created in Fireworks can easily be brought into Dreamweaver, Flash Professional, and Flash Catalyst*, and Fireworks can also import graphics directly from Photoshop and Illustrator.

For more information on Adobe Fireworks CS4,
visit http://www.adobe.com/products/fireworks.

Adobe Acrobat 9 Pro

Tightly integrated with the other software in Adobe Creative Suite, Acrobat 9 Pro enables you to create richly expressive PDF files, and collaborate more effectively with clients and colleagues. You can embed content created in Flash — including video, audio, and applications — in a PDF document, which can then be published on the web.

For more information on Adobe Acrobat 9 Pro,
visit http://www.adobe.com/products/creativesuite/acrobatpro.

Adobe Bridge CS4

Bridge CS4 is a powerful, easy-to-use media manager for visual people, letting you easily organize, browse, locate, and view creative assets. While it isn't used to create content per say, Bridge does offer several time-saving scripts and functions. Bridge also features an output function which allows you to publish an interactive Flash-based photo gallery of images on the web.

For more information on Adobe Bridge CS4,
visit http://www.adobe.com/products/creativesuite/bridge.

Additional technology from Adobe

Adobe provides designers and developers with the opportunity to experience and evaluate new and emerging innovations, technologies, and products through Adobe Labs. Following are products and services that are currently in development, but are available in beta form from the Adobe Labs website at http://labs.adobe.com.

Adobe Flash Catalyst*

Flash Catalyst is a new professional interaction design tool for rapidly creating user interfaces without coding. Tightly integrated with design applications you're already familiar with, you can import designs directly from Photoshop, Illustrator, or Fireworks to quickly create interactive content and applications (called Rich Internet Applications, or RIAs). Flash Catalyst is currently available free as a public beta from Adobe Labs.

For more information on Adobe Flash Catalyst, and to download a copy, visit http://labs.adobe.com/technologies/flashcatalyst.

Adobe BrowserLab*

BrowserLab provides web designers exact renderings of their web pages in multiple browsers and operating systems. BrowserLab is a powerful solution for cross-browser compatibility testing, featuring multiple viewing and comparison tools, as well as customizable preferences. Since BrowserLab is an online service, it can be accessed from virtually any computer connected to the web. Also, Dreamweaver CS4 users have access to additional functionality such as testing local and active content. Adobe BrowserLab is currently in a limited beta preview.

For more information on Adobe BrowserLab, visit http://labs.adobe.com/technologies/browserlab.

Where do we go from here?

With a solid understanding of the basic concepts of web design, you're now ready to get started creating web content. Remember that web design applications like Fireworks, Dreamweaver, and Flash all look and feel similar to the applications you already know, such as Photoshop, Illustrator, and InDesign. More importantly, your existing knowledge and experience in design will only work to your advantage.

Investing time in learning more about web design will help ensure success. As you explore web design concepts, technologies, and applications, you will find the following resources helpful. One of the unique aspects around web design is the wealth of available resources you can find. Here is a sampling of resources you can start with:

- **Adobe TV.** Offering video tutorials, shows, podcasts, and classes that cover the entire range of Adobe software, Adobe TV (http://tv.adobe.com) is free. You'll find content from Adobe and many other 3rd party sources on Adobe TV as well.
- **Lynda.com.** With an Online Training Library that offers structured video-based training on design technique, inspiration, and software, Lynda.com covers a wide range of topics from a variety of authors. Access to the Lynda.com Online Training Library requires a subscription fee. See www.lynda.com for details.
- **Peachpit.com.** Dedicated to the design community, Peachpit Press offers a fantastic collection of books covering web design and instruction, including the popular Adobe Classroom in a Book series. Visit www.peachpit.com for a list of titles.
- **A List Apart.** Focused primarily on web design, development, and the embracing of open web standards, A List Apart is an online magazine that offers countless articles covering all aspects of web design. For more information, visit www.alistapart.com.

For more information

For more details about Adobe Creative Suite 4 Design Premium, visit *www.adobe.com/products/creativesuite/design*.

* Flash Catalyst and BrowserLab are currently offered as a free public betas on Adobe Labs. For more information, visit labs.adobe.com.

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Adobe Systems Incorporated
345 Park Avenue
San Jose, CA 95110-2704
USA
www.adobe.com