digit
July 2006

# Fast Track to WEB DESIGN

Getting **Started**

**HTML**

The Basics Of **JavaScript**

**PHP**

**Site** Design **Tools**

**Image Editing** For The **Web**

Microsoft **FrontPage**

Content **Management Systems**

**Forums**

**Finishing** Up

Resources

Jasubhai DIGITAL MEDIA

# Fast Track to Web Design

By Team Digit

# Credits

## The People Behind This Book

**EDITORIAL**
**Deepak Ajwani** Editor
**Robert Sovereign-Smith** Writer, Copy Editor
**Ram Mohan Rao** Writer, Copy Editor
**Nimish Chandiramani** Writer, Copy Editor
**Jayesh Limaye** Writer
**Michael Brown** Writer
**Kailas Shastry** Writer
**Abey John** Writer
**Arjun Ravi** Writer
**Anand Batra** Writer

**DESIGN AND LAYOUT**
**Vijay Padaya** Layout Designer
**Sivalal S** Cover Design
**Harsho Mohan Chattoraj** Illustrator

© Jasubhai Digital Media
Published by Maulik Jasubhai on behalf of Jasubhai Digital Media. No part of this book may be reproduced, stored in a retrieval system or transmitted in any form or by any means without the prior written permission of the publisher.

**July 2006**
Free with Digit. Not to be sold separately. If you have paid separately for this book, please e-mail the editor at **editor@thinkdigit.com** along with details of location of purchase, for appropriate action.

# HTML And Beyond

Admit it. You want to have a personal Web site, don't you? Or perhaps you're running a small business, and you'd like to include a Web address on your visiting cards. And you don't know how to go about it beyond the basic HTML. This book is just what you're looking for! For those not familiar with basic HTML either, we've included a chapter on that subject.

There are several elements that go into a professional-looking Web site, and we have here tried to cover what you'd need to build one. After looking at the basics of HTML, we go into JavaScript and PHP—after all, you don't want any boring old static Web page, do you? We've also included material on site design tools such as FrontPage and Dreamweaver so you make a site with a minimum of fuss. FrontPage workshops have also been included.

Content Management Systems, which make it convenient to manage your Web site, have been discussed in some detail. If you'd like to put up a forum on your site—which in some cases is essential, and in some cases fun—we've explained how to do so, using easy-to-use tools.

After you've built your site, you need to upload it (don't forget that bit!) and also check for a few things—such as whether it is compatible with popular browsers and so on. A chapter is dedicated to uploading and testing your site. Finally, we present examples of well-made sites and what you can learn from them—and, complementarily, what Web design mistakes to avoid.

Web designing is a profession all by itself. So are JavaScript coding and PHP coding. And so also is the building of content management systems! We obviously cannot cover here all that you might need to know, but the enemy is inertia. The laziness that prevents you from getting started. This book is an introduction, a starting point. If you find Web site building is fun, you will look further and learn.

On the whole, by the time you've reached the end of this book, you should know what you need to get a basic site up and running—the site you've been promising yourself you'd build!

# Contents


| | | |
|---|---|---|
| **Chapter 1** | **Getting Started** | **8** |
| 1.1 | Getting A Domain | 9 |
| 1.2 | Securing Web Hosting | 12 |
| 1.3 | Free Domains / Web sites | 16 |
| 1.4 | Ready-Made Web Sites | 17 |
| **Chapter 2** | **HTML** | **19** |
| 2.1 | Basic Formatting Using HTML | 20 |
| 2.2 | Images | 26 |
| 2.3 | Tables | 27 |
| 2.4 | Cascading Style Sheets (CSS) | 28 |
| 2.5 | A List Of HTML Tags | 32 |
| **Chapter 3** | **The Basics Of JavaScript** | **36** |
| 3.1 | The Ground Up | 37 |
| 3.2 | Baby's First JavaScript | 39 |
| 3.3 | Conditions In JavaScript | 42 |
| 3.4 | Loops | 45 |
| 3.5 | Functions in JavaScript | 47 |
| 3.6 | Using Pop-Up Boxes In JavaScript | 48 |
| 3.7 | Events In JavaScript | 50 |
| 3.8 | Manipulating The Browser Window | 52 |
| **Chapter 4** | **PHP** | **54** |
| 4.1 | PHP—The What, Why And Whodunit | 55 |
| 4.2 | Prerequisites | 57 |
| 4.3 | Getting started | 58 |
| 4.4 | Conditional Operators | 62 |
| 4.5 | Functions | 65 |
| 4.6 | Arrays | 67 |
| **Chapter 5** | **Site Design Tools** | **73** |
| 5.1 | CoffeeCup HTML Editor 2006 | 75 |
| 5.2 | Microsoft Publisher | 79 |
| 5.3 | Serif WebPlus 6.0 | 81 |
| 5.4 | Macromedia Dreamweaver 8 | 84 |
| **Chapter 6** | **Image Editing For The Web** | **91** |
| 6.1 | Image Formats | 92 |
| 6.2 | Saving for the Web using Adobe Photoshop / ImageReady | 95 |

| | | |
|---|---|---|
| 6.3 | Creating Animations | 97 |
| 6.4 | Creating Rollover Effects In ImageReady | 99 |
| 6.5 | Creating Buttons | 101 |
| **Chapter 7** | **Microsoft FrontPage** | **103** |
| 7.1 | Getting Started | 104 |
| 7.2 | The Look | 105 |
| 7.3 | Your First Web Page | 107 |
| 7.4 | Prettying Up Pages | 111 |
| 7.5 | Templates | 119 |
| **Chapter 8** | **Content Management Systems** | **126** |
| 8.1 | Why Do I Need A CMS? | 127 |
| 8.2 | A Web Server On Your Home Computer! | 128 |
| 8.3 | PHP-Nuke | 130 |
| 8.4 | Mambo | 134 |
| 8.5 | PostNuke | 137 |
| 8.6 | Joomla | 140 |
| 8.7 | Drupal | 142 |
| 8.8 | XOOPS | 145 |
| 8.9 | PHP-Fusion | 147 |
| 8.10 | e107 | 150 |
| 8.11 | DragonFly CMS | 153 |
| 8.12 | CivicSpace | 155 |
| 8.13 | How To Move Your Site To The Web Server | 159 |
| 8.14 | A Few Wise Words | 160 |
| **Chapter 9** | **Forums** | **161** |
| 9.1 | The Value Of Forums | 162 |
| 9.2 | Classification Of People On A Forum | 163 |
| 9.3 | Forum Packages | 164 |
| **Chapter 10** | **Finishing Up** | **173** |
| 10.1 | Hosting Your Own Site | 174 |
| 10.2 | Uploading Your Site | 178 |
| 10.3 | Testing The Site | 180 |
| 10.4 | SEO—Search Engine Optimisation | 182 |
| **Chapter 11** | **Resources** | **183** |
| 11.1 | Dos And Don'ts: The Dos | 184 |
| 11.2 | Dos And Don'ts: The Don'ts | 189 |
| 11.3 | Useful Sites | 192 |

# Getting Started

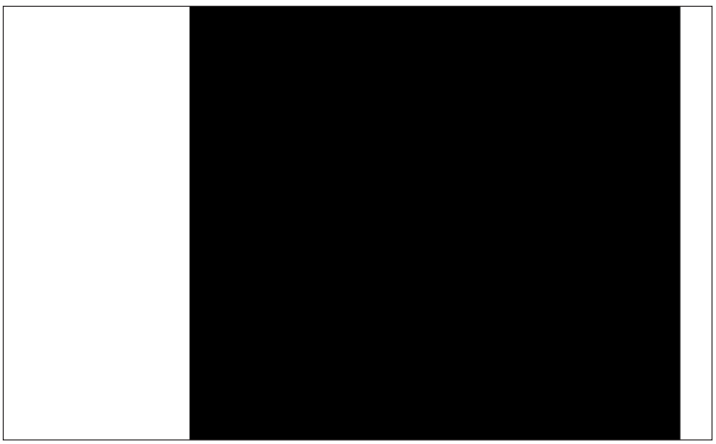
Type "web hosting" into Google and you get about 800 million hits. So who do you choose? You'll be able to figure out once you're through with this chapter! There are two aspects to getting your Web site online: registering a domain name and hosting the site on a server. This chapter will take you through the various aspects of domain registrations and hosting to help you make an informed decision.

## 1.1 Getting A Domain

The first step to hosting your Web site is choosing your domain name and getting it registered. Choosing the right name depends on a number of factors. If you are a business with an already established presence, it would make sense to use your company name. If you're promoting a particular product, it may be a better idea to use that product's name. If it's a personal Web site, you could use your own name... and so on. Some of the ground rules in choosing a domain name are:

- It shouldn't be too long
- It should be easy to remember
- If should not be easy to misspell the name

Like the site name, the last part of the domain name - which ends in .com, .net, .org, etc. - is also important. The choice of what domain extension to register your site under should also be driven by your target audience. Registering with a .com extension is the default consideration. Most people associate Web site addresses with the .com extension. So even if they've heard of your company



Go Daddy Home Page

in passing and want to visit your Web site, they would naturally try yourcompany.com first. Of course, search engines will help, but this point could be important in the early days of your Web site before you get into the search indexes.

In addition to the .com extension, you should also consider registering the name in country level domains. For example, if you are a business based in India, the .in extension will communicate an intrinsic message to your web audience. It will declare that you are an Indian company present in India, so you are reachable by phone or physical address without too much difficulty. If your site is an e-commerce site, it would also give customers the much-needed assurance of the legality of your site.

Domain names are valuable. You will need to have at least two to three possible candidates for your Web site name, as there is a good likelihood that most of the obvious ones are already taken.

Also, you will need to protect your domain name. Once your site crosses a threshold of popularity you can become easy targets for me-too Web sites trying to ride on your success. Unscrupulous punters will attempt to lure your customers away with underhand tactics: say you've registered your site as mysite.com and mysite.in. These scam artists will register mysite.org and mysite.net and host mock Web sites that look exactly like yours. In many cases, customers will be tricked into parting with their money with nothing to show for it. The ill will, though, will be entirely directed towards you! Protecting your name by registering it under as many top-level and country-level domains as you possibly can is necessary to protect your online brand.

Having decided on the possible names for your Web site, the next step is to find a domain registrar. Many hosting companies include domain name registration as part of their hosting packages. It may seem simpler to use their service; however, it could become a potential bottleneck if you want to switch hosting companies later on. The administrator account for the domain regis-

tration will default to the hosting company, and getting that information out would be like pulling out a tooth. Since you are dumping them and moving to another host, they will feel less than obliged to provide you with the necessary information in a timely manner.

Among domain registrars for international domains such as .com and .org, godaddy.com provides some of the best prices you can find. At around $7 (about Rs 350) per year, the registration process is completely transparent and under your control at all times.

The story on .in domains, though, is murky. Indian registrars are known to use sleazy tactics like changing your address to theirs and then asking for more money to change it back. Be careful when buying .in domains. Take the extra step of confirming the terms with a human contact before paying. Be specific and ask for guarantees that you have complete control over your domain name. You should have full administrator control and you should be able to directly update all details related to your domain. If the answers you receive are evasive, or if they cite some sort of technical difficulties or hide behind that great excuse called “for security reasons," you can be almost certain that you will face a lot of trouble when attempting to update/change your records.

## 1.2 Securing Web Hosting

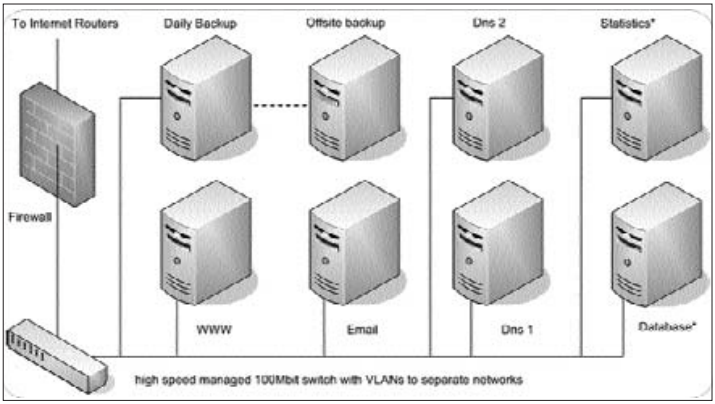
Before choosing a hosting provider you have to determine what your needs are. For a start-up Web site, this might not be very clear, but you will have some idea about the kind of services you plan to offer your audience. There are a number of elements you need to be clear about before shopping around for a Web host. These include the type of site, the kind of database(s) required, special software such as chat, bulletin boards and shopping carts, the average number of visitors you expect, the number of e-mail users who will use your domain address, and the server side technology used for your site.

Each of these elements will determine your choice of Web host. The first choice you have to make is whether your Web site will sit on a shared server or a dedicated box. A shared server, as the name indicates, is a single physical server that will be hosting tens or even hundreds of other Web sites alongside yours. On the other hand, on a dedicated server, the entire machine is allocated to your Web site. An extension of the dedicated server is co-location. Unlike dedicated servers, a co-located server is owned by you. The Web hosting provider will provide a pipe to the Internet and your server will be connected to the Web.

There are advantages and disadvantages with each of these options. Let's take a look at each.

### 1.2.1 Shared Hosting

The main attraction associated with shared hosting is cost. For a fraction of the cost of a complete server, you can have a fully-functional Web site up and running in no time. Most hosting providers provide online setup and configuration of your accounts. This should have you ready to upload your site files within 10 minutes of paying up. Competition is fierce in the shared hosting market, so hosting providers trip over themselves to offer you a smorgasbord of features hoping to attract you into signing up. Don't get overawed by the feature list. Many of these features will have fine




Shared Web Hosting

print exclusion clauses that may make it unworkable in some contexts. For example, your Web site may be heavily dependent on PHP scripts. Scripts are computing-intensive tasks and may consume a lot of processor resources. The provider may have a policy that limits hogging of the processor. Another example is the bandwidth (the total amount of data sent and received) a site can use. Be wary of those who offer unlimited bandwidth. They will provide no guarantees that your site will be accessible during peak traffic loads.

That said, shared hosting is the best choice for a low- to medium-traffic Web sites. Sites such as Yahoo! Web Hosting are really stretching the meaning of what is meant by low traffic, with their 500 GB of data transfer per month. That gives you the capacity to handle over 1 million visitors a month. By the time you reach even half that magic number, however, other factors will prompt you to get your own server.

The real disappointment is the pathetic offers from Indian Web hosting companies. Astronomical prices for less than half the features of international hosting companies, and bad to indifferent customer support are some of the ills that plague this industry. While we'd love to be patriotic and recommend a decent

Indian domain registrar and Web hosting hero, the sad fact is we are yet to find one.

### 1.2.2 Dedicated Server / Co-location server

Dedicated servers give you exclusive use of a single server machine to host your Web site. While they are more expensive, dedicated servers might make more sense if you are hosting sensitive data and/or have high volume traffic. Since there are no other Web sites on your machine, you can make full use of the entire resources of the server without fear of suffering from performance issues. Of course, beyond a certain load you would need to upgrade your server to ensure consistency in performance.

A dedicated server, in effect, is rented out from the hosting provider. When shopping around for one, make sure its specifications are suited to your Web site's requirements. Some hosts only provide a barebones machine with just the operating system (usually Windows or Linux). You would need to procure and install all the software and databases. Many have bundled offers where they provide a default set of software that can be hacked to suit your requirements. They would include: chat, bulletin boards and shopping card software, support for VoIP applications, support for Flash, and so forth.

A co-located server on the other hand is one that you own and which is placed in the data centre premises of the hosting provider. You can load any and all software that you require, and the host's responsibility is to ensure that your server remains constantly powered on while providing you with the agreed-upon bandwidth.

Dedicated server pricing can vary widely, and depends on the server configuration, the level of technical support and other factors, which differ from host to host.

### 1.2.3 How to choose a Web host

Choosing a Web host is one of the most important decisions you will make. Generally, the hosting provider should be able to give

you full control over your account (on a shared server) or your server. There should preferably be a Web-based administration interface that will enable you to directly make configuration changes to your site without needing to call technical support. You will need to invest time and effort in choosing a host that will be able to fulfil if not exceed your needs.

Once you've determined the technical requirements of your Web site, run a search for hosting companies with your core requirements. For example, if your site depends a lot on Flash animation, your search term could be "flash support web hosting." Narrow the selection down to four or five providers that fit within your need and price band.

The next step is to search for any adverse news/comments on these Web hosts. Many Webmasters maintain blogs detailing their hosting experiences. Reviewing their feedback will help you in avoiding sleazy and second-rate hosts. A good tool to search blogs is http://blogsearch.google.com. Just include the hosting provider's name in your search terms to get links to the rants and raves of your potential Web host!

One fact that you need to verify is the strength of the provider's technical support. Most good hosting providers will have support personnel available 24x7 both via chat and e-mail. They should specify SLAs (Service Level Agreements) on their response times and should have sufficient skills to troubleshoot any problem you might have with the server or your account. Don't expect them to troubleshoot your Web site, though. If your chosen host does not provide detailed information about their technical support on their Web site, you'll need to write them asking them for details such as those about response times. Evasive answers, too glib replies like "don't worry, we'll handle it" are warning flags.

Also, it is a good idea to maintain complete and up-to-date offline backups of all the data and content on your Web site. This

will enable you to quickly switch hosts if you find your current host unsatisfactory. All you need to do is set up the new site, change the DNS pointers in your domain name, wait for a few days for the propagation (of the new IP address for your Web site) to take effect, and you'll be good to go.

## 1.3 Free Domains / Web sites

Geocities Control Panel

Google Page Creator

For those of you still undecided about spending money on setting up your own Web site, there is still the option of going in for a free site. Free sites have some limitations. Your site will be a subdomain of the free site provider. Geocities (geocities.yahoo.com) and Google Page Creator (pages.google.com) are good examples of free Web site providers. Other than the "top-drawer" names, there are literally hundreds of companies that provide free hosting. The catch, though, is that they will reserve space on your screen to serve advertising banner ads and other links. Also, they might disable certain features that are processor intensive, and only allow you to have limited interactivity on the site.

If you are new to Web page design and not too keen on getting your fingers dirty by delving into HTML coding, most of these free Web sites (as also the paid sites) offer template-based WYSIWIG (What you see is what you get) interfaces that enable you to design your Web site using nothing more than your mouse and keyboard.

You can choose from themes and colour combinations that can give you a fully-functional (even if with limited capabilities) Web site in an hour or so.

## 1.4 Ready-Made Web Sites

As the Internet evolves into a vehicle for social interaction, maintaining online journals or blogs is getting increasingly popular. Blogs are evolving into alternative sources of information that bypass mainstream media to engage directly with the audience. Many bloggers have acquired personal fan followings that can rival those of cine stars!

### 1.4.1 Blogs

The ease of personal publishing that blog and analogous sites offer makes it irresistible to many. As with Web sites, there are two options you can go with: get a paid blogging site or go for a free one. Blogging software come in many shades and flavours; two of the most popular ones are Movable Type and WordPress. While WordPress is free and open source, you will have to buy a license to use Movable Type. Both these software have their relative merits, but the bottomline is that you can host them on your own server customised to suit your requirements.

WordPress Home Page

Free blogging sites such as blogger.com and rediffblogs.com remove the technical hurdles and allow you to start blogging right away after a simple sign-up process. You can change the look

Rediff Blogs Home Page

and feel of your blog to suit your style and personality, and add advertising banners and affiliate links that can provide some additional revenue.

Of course, advertising is also possible on paid blog sites. The only difference between hosting your own blog and using a free host is the level of control you have over the look and feel and presentation style.

### 1.4.2 Photo Blogs

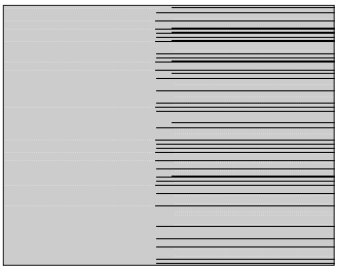

Flickr Home Page

Photo bloggers are the next step in the blogging evolution. With the ubiquity of the digital camera and camera phones, taking pictures has almost become a reflex action. Sites such as Flickr.com and Photobucket.com allow you to host your images for free with basic features, and for a fee with advanced features. You can make your pictures public, keep them private, or share them with select friends.

### 1.4.3 Personal Portals

Multiply - One Site for Everything

What happens when you mash up content blogs with photo blogs? You get sites such as Yahoo 360o (360.yahoo.com), My Space (myspace.com) and Multiply (multiply.com). The premise of these sites is that it is no longer just about text or photos. The digital persona should encompass every aspect of a person's social life, enabling them to publish blogs, photos, videos, music and more, while at the same time connecting them with friends and peers via a seamless interface.

# HTML

Hypertext Markup Language or HTML is the basis for all Web pages. For those of you who want more control over the layout and design of your Web pages, HTML is the way to go. Compared to regular programming languages, HTML is fairly easy to learn and simple to use.

While you can use HTML code editors and WYSIWYG editors to built your HTML pages, it is recommended that you start off with hand coding to get an in-depth understanding of the way HTML works. Once you're fairly confident of your HTML skills, you can then go ahead to use advanced editing tools. HTML only requires a simple text editor to start coding. Do take the time to work through the sample code included in this section to get a hands-on feel on working with HTML.

## 2.1 Basic Formatting Using HTML

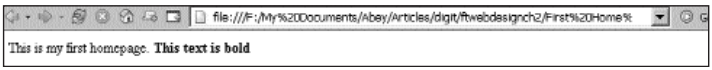
An HTML file contains "markup tags" that tell the Web browser how to follow the instructions enclosed within the tags. The angular brackets "<" and ">" indicate that the text within the brackets is a tag. The start of the tag and the end of the tag are identified using special formats. For example,  indicates the start of a new paragraph, and  indicates the end of the paragraph. Regular text, or other instructions depending on the tag type, is enclosed between the starting and ending tags. Tags are not case sensitive, that is,  and <P> mean the same thing.

Each tag can have attributes. These provide additional formatting and other information regarding the tag. For example, the <body> tag can have an attribute to specify the background colour of the Web page. <body bgcolor="blue"> will render the Web page with a blue background.

Every HTML document starts with the <html> tag indicating to the Web browser the start of the HTML document, and ends with the </html> tag, which indicates the end of the document. A basic HTML document looks like this:

```
<html>
<head>
<title>My first HTML page</title>
</head>
```

```
<body>
This is my first homepage. <b>This text is
 bold</b>
</body>
</html>
```



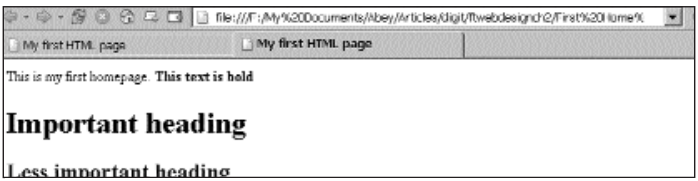

The first HTML Page

The <head> tags indicate header information, or information that is not displayed in your page. The <title> tags enclose the text that will appear in the caption bar of your Web browser. The text between the <body> tags will be displayed in your browser window.  and  indicate to the Web browser that all text between this tag pair should be bold. To see the above code action, type it out in a text editor like Notepad and save it as a .html or .htm file. Then open the file in your browser to see the results.

Other than the above, other basic tags are headings, paragraphs, line breaks, links, emphasis and lists.

There are six levels of headings in HTML. They start with the <h1> </h1> tag pair and go up to the <h6> </h6> pair. You should use <h1> </h1> for the most important heading in your site, and <h2> </h2> for a sub-head, and so on. For example:

```
<h1>Important heading</h1>
<h2>Less important heading</h2>
```




Headings and their weights

and so on.

The  and  tags enable you to specify the paragraph breaks in your text. You can use as many of these tags as you need.

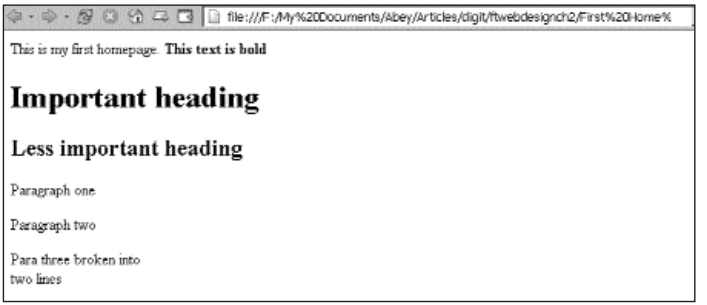
```
<p> Paragraph one </p>
<p> Paragraph two </p>
```

Paragraphs

The <br> and </br> tags introduce line breaks when you want to start a new line and not a new paragraph. Thus,

```
<p>Para three broken into<br>two
lines</br></p>
```

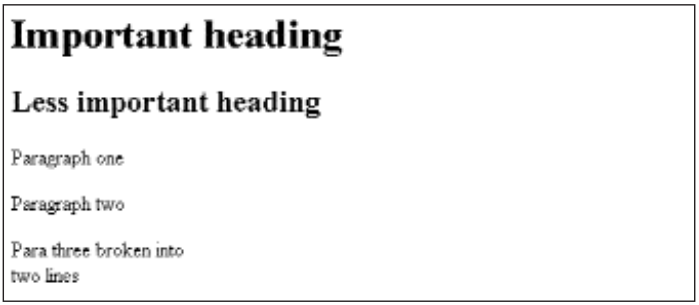
will print the text in two lines.




Breaking paragraphs into lines

The  tag adds emphasis to words.

```
We need to <em>emphasise</em>this.
```




Putting emphasis on certain words

To link to a different site or page you use the <a> tag. If you have a file called digit.html in a folder called 'Digit' and you want to link to this from your home page, the resulting code would look like this:

```
<a href="Digit/digit.html">Digit Page</a>
```

This code will display the text "Digit Page", usually in a blue font, and underlined to indicate a link. To specify a link to another Web site you substitute the file name with the site's URL.

```
<a href="http://www.thinkdigit.com/">Digit
Home Page</a>
```

HTML supports three kinds of lists. A bulleted or unordered list uses the <ul> and <li> tags. A numbered or ordered list uses the <ol> and <li> tags. And a definition list

Creating Hyperlinks

lists terms and their definitions by using the <dl>, <dt> and <dd> tags.

A bulleted list:

```
<ul>
 <li>list item one</li>

 <li>list item two</li>

 <li> list item three</li>
</ul>

A numbered list:
<ol>
 <li>list item 1</li>

 <li>list item 2</li>

 <li>list item 3</li>
</ol>
```

A definition list:

```
<dl>
 <dt>term one</dt>
 <dd>definition for term one</dd>

 <dt>term two</dt>
 <dd>definition for term two</dd>

 <dt>term three </dt>
 <dd>definition for term three</dd>
</dl>
```

**The Bulleted, Ordered and Definition lists**

All these tags can be combined and nested and used in powerful ways to make a richly-formatted document. Other tags enable you to manipulate the layout and design of the Web page to a great extent.

Also, if you wish to insert developer comments into your Web pages, you would use the comment tag:

```
<!– Insert comment here –>
```

## 2.2 Images

To add an image to your Web page, you use the <img> tag and specify a location to pick up the image file from.

```
<img src="images/image.jpg" width="200"
height="150" alt="Just an image">
```

The 'src' (source) attribute tells the browser to get the image file image.jpg from the 'images' folder for the Web site, and that it should be displayed in a 200 x 150 pixel area. While the image is being loaded, the "alt" (alternate) attribute informs the browser to display the text "Just an image".

You can also make a clickable link:

```
<a href="/"><img src="logo.gif" alt="home
page"></a>
```

This tells the Web browser that the image file "logo.gif" is clickable, and any click on the logo image should be directed to the home page (the "/" symbol).

ALT text in images

## 2.3 Tables

Tables are defined using the <table> tag. Rows are defined with the <tr> tag and each column is divided into data cells with the <td> tag. Headings in a table are defined using the <th> tag. While you may specify a table without any borders, depending on your layout requirements, you can use the border attribute to specify the thickness of the border.

```
<table border="1">
<tr>
<th>Heading 1</th>
<th>Heading 2</th>
</tr>
<tr>
<td>row 1, cell 1</td>
<td>row 1, cell 2</td>
</tr>
<tr>
<td>row 2, cell 1</td>
<td>row 2, cell 2</td>
</tr>
</table>
```

## 2.4 Cascading Style Sheets (CSS)

Once your Web site grows beyond a few pages, you will want to maintain a consistent look and feel across all pages with consistent formatting, design and layout. The trouble starts when you have to change one single element in your format and want it replicated across all your Web pages. Updating each page manually can get tedious if you have 20-odd pages, and a Herculean task if you have 100 pages or more.

Cascading Style Sheets or CSS enable you to separate the content of your HTML documents from the presentation. A single file or a small group of files could define the presentation format for your entire Web site. Thus, any format or presentation changes required across the Web site would be controlled through these CSS files.

For style sheets to work, it is important that your HTML is error-free. You can use the HTML Tidy tool (http://tidy.sourceforge.net) to automatically fix errors as well as tidy up the markup for easier reading and editing.

### 2.4.1 The Basics

To define styles, you use the <style> element. To define properties for the documents, you specify the attributes for the document tags within the <style>. When defining the style for a template HTML file, the style element is placed within the document <head> and not the <body>.

```
<html>
<head>
<title> Document Title </title>
<style type="text/css">
 body { color: black; background: white; }
</style>
</head>
<body>
```

```
Document Content comes here

</body>
</html>
```

Between <style> and </style>, a special notation for style rules is used. Each document tag name is defined and a list of style properties for each is specified between the curly braces. In this example, the <body> tag has been given the property of a white background with black text. Defining the style of the <body> tag sets the basis for the rest of the style definitions.

The definition format for the style property is styleproperty1: value; styleproperty2: value; and so on. Note the use of colons and semi-colons to separate one property from the next.

**2.4.2 Using A Separate Style Sheet**

To use the same style for several different Web pages, you should create a separate style sheet and then link the sheet from each page where you want the style to be applied.

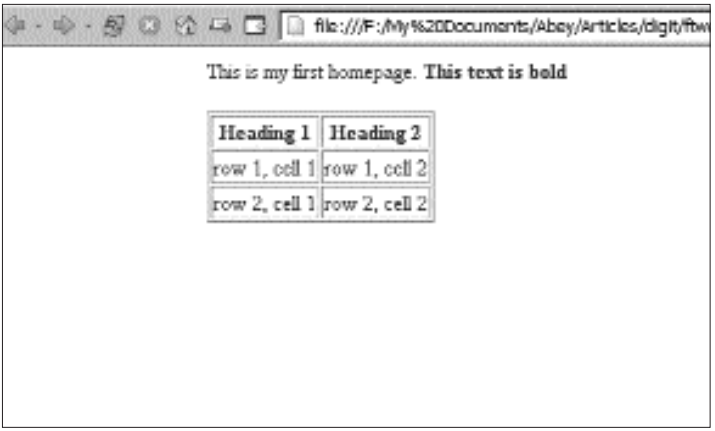
```
<html>
<head>
<title> Document Title </title>
<link    type="text/css"    rel="stylesheet"
href="style.css">
</head>
<body>
Document content comes here

</body>
</HTML>
```

As you can see from the code, the file "style.css" is referred to in the document <head> with the "rel" attribute set to "stylesheet", and the type attribute set to "text/css". This tells the browser to use the file "style.css" to apply the style format to the current document.

Not only can you refer to an external style sheet, you can also specify additional page-specific style elements in the same HTML file. Below you will see an example of an alternate style sheet coded into a Web page:

```
/* style.css—a simple style sheet */
body {
 margin-left: 15%; margin-right: 15%;
 color: blue; background: white;
}
```

This tells the browser that this page has a margin on the left and right that totals 15 per cent of the page width, has a text colour of 'blue' on a 'white' background.




A CSS formatted page

### 2.4.3 Fine-grained Control Of Your Formatting

There are a number of style properties that can be used to establish fine-grained control over your formatting. The "margin-top" and "margin-bottom" properties specify the margin space above and below the document. For example, you can use these in conjunction with the headings property to control the space above and below each heading.

```
h1 { margin-top: 3em; margin-bottom: 2em; }
```

The “em” unit is relative to the size of the font. One em equals the height of the font. In this example, all h1 headings will have a top margin three times the height of h1 and a bottom margin twice the height of h1.

Style sheets make it particularly easy to control font size and styles. While you cannot control the fonts available in all the browsers that view your pages, you can set a preferred order for several fonts.

```
body { font-family: Verdana, sans-serif; }

h1,h2 { font-family: Garamond, "Times New
Roman", serif; }
```

In the above example, Garamond is preferred for important headings, failing which it will use ‘Times New Roman’, and if that is unavailable, it will default to the available serif font. Verdana would be used for paragraph texts, and if that is unavailable, it will use the default sans-serif font.

Similarly, you can set style properties for borders, margins and colour. For an in-depth tutorial on using CSS, visit www.yourhtml-source.com/stylesheets/.

When using style sheets (and general HTML) you should remember that not all browsers respond in a similar manner. Hence, what may be rendered exactly as you wish in one browser may get totally skewered in another. This, of course, means that you will need to test and retest each of the changes in as many browsers as possible. While that may be practically impossible, you should at the minimum test your pages in Internet Explorer, Firefox and Opera, as these are the most popular browsers, and 99 per cent of visitors will be using one of these.

## 2.5 A List Of HTML Tags

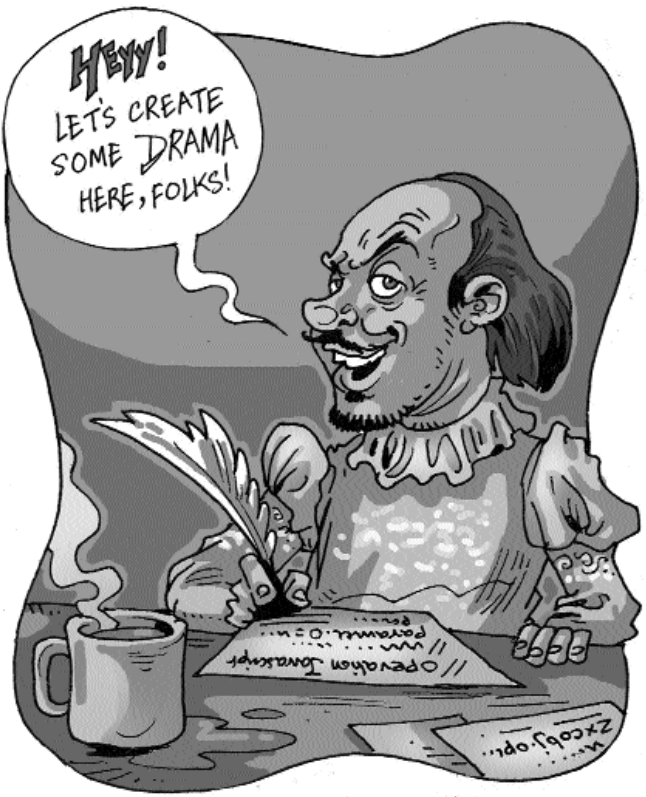
| Tag | Description |
|---|---|
| <!--...--> | Specify comments within your code |
| <!DOCTYPE> | Specifies the document type |
| <a> | Specifies an anchor |
| <abbr> | Specifies an abbreviation |
| <acronym> | Specifies an acronym |
| <address> | Specifies an address element |
| <applet> | Used to indicate an applet |
| <area> | Specifies an area inside an image map |
| <b> | Specifies bold text |
| <base> | Specifies a base URL for all the links in a page |
| <basefont> | Specifies a base font |
| <bdo> | Indicates the direction of text display |
| <big> | Specifies big text |
| <blockquote> | Specifies a long quotation |
| <body> | Specifies the body element |
| <br> | Inserts a single line break |
| <button> | Specifies a push button |
| <caption> | Specifies a table caption |
|  | Specifies text centring |
| <cite> | Specifies a citation |
| <code> | Specifies computer code text |
| <col> | Specifies attributes for table columns |
| <colgroup> | Specifies groups of table columns |
| <dd> | Specifies a definition description |
| <del> | Specifies deleted text |
| <dir> | Specifies a directory list |

| | |
|---|---|
|  | Specifies a section in a document |
| <dfn> | Specifies a definition term |
| <dl> | Specifies a definition list |
| <dt> | Specifies a definition term |
|  | Specifies emphasized text |
| <fieldset> | Specifies a fieldset |
| <font> | Specifies text font, size, and color |
| <form> | Specifies a form |
| <frame> | Specifies a sub window (a frame) |
| <frameset> | Specifies a set of frames |
| <h1> to <h6> | Specifies header 1 to header 6 |
| <head> | Specifies information about the document |
| <hr> | Specifies a horizontal rule |
| <html> | Specifies an HTML document |
| <i> | Specifies italic text |
| <iframe> | Specifies an inline sub window (frame) |
| <img> | Specifies an image |
| <input> | Specifies an input field |
| <ins> | Specifies inserted text |
| <isindex> | Specifies a single-line input field |
| <kbd> | Specifies keyboard text |
| <label> | Specifies a label for a form control |
| <legend> | Specifies a title in a fieldset |
| <li> | Specifies a list item |
| <link> | Specifies a resource reference |
| <map> | Specifies an image map |
| <menu> | Specifies a menu list |
| <meta> | Specifies meta information |
| <noframes> | Specifies a noframe section |
| <noscript> | Specifies a noscript section |

| | |
|---|---|
| <object> | Specifies an embedded object |
| <ol> | Specifies an ordered list |
| <optgroup> | Specifies an option group |
| <option> | Specifies an option in a drop-down list |
| <p> | Specifies a paragraph |
| <param> | Specifies a parameter for an object |
| <pre> | Specifies preformatted text |
| <q> | Specifies a short quotation |
| <s> | Specifies strikethrough text |
| <samp> | Specifies sample computer code |
| <script> | Specifies a script |
| <select> | Specifies a selectable list |
| <small> | Specifies small text |
|  | Specifies a section in a document |
| <strike> | Specifies strikethrough text |
|  | Specifies strong text |
| <style> | Specifies a style definition |
| <sub> | Specifies subscripted text |
| <sup> | Specifies superscripted text |
| <table> | Specifies a table |
| <tbody> | Specifies a table body |
| <td> | Specifies a table cell |
| <textarea> | Specifies a text area |
| <tfoot> | Specifies a table footer |
| <th> | Specifies a table header |
| <thead> | Specifies a table header |
| <title> | Specifies the document title |
| <tr> | Specifies a table row |
| <tt> | Specifies teletype text |
| <u> | Specifies underlined text |
| <ul> | Specifies an unordered list |
| <var> | Specifies a variable |
| <xmp> | Specifies preformatted text |

This list and the contents of this chapter should help you breeze through the chapters that follow, and not get lost with any code terminology you encounter. You should take the time to try out all the code mentioned in this chapter to get used to HTML before you go any further in this book. Just open Notepad, type out the code mentioned here, save the file on your Desktop as file.html and then double-click the file to see the results in a browser. It's important that you do this so as to get used to typing out code, making sure to close every tag you open (<a> needs an </a> of everything after <a> becomes a link, etc.) and also get used to debugging the flaws in code that you or an HTML editor creates.

# The Basics Of JavaScript




Most people who learn HTML to use on their Web sites aren't programmers by nature or profession, but it would be unfair to not let them have the same interactivity in their Web pages as any desktop application. JavaScript is a scripting language—a "diet" programming language—designed to be easy to learn and use even for novices, and by the end of this chapter, you'll be able to write basic JavaScript code even if you've never written a program before.

## 3.1 The Ground Up

Before we begin, there are a few things that need dealing with. Most importantly, you should read the previous chapter on HTML—you'll need all that knowledge to know what's happening inside your JavaScript code blocks. Next, we deal with some basic programming concepts.

### How JavaScript works

JavaScript is an *Interpreted Language*—your browser reads each instruction and processes it in realtime, as opposed to compiled languages such as C and C++, where all the code you write needs to be translated into a language that your hardware can understand (called machine language) before it can be executed.

### Variables

Variables store any information that you want to use in your programs. As the name suggests, you can change their value at any time. All variables need a *declaration*—you have to tell the interpreter what to treat as a variable. Let's take a simple example—a program that adds two numbers. Note that this is not actual code, but a representation of what it'll be doing.

#### JavaScript and Java

A near-foolproof way to get programmers to blow their gaskets is to draw no distinction between JavaScript and Java. Despite sharing four letters of the name, the two languages have very little in common! Java is a much more powerful and complex language than JavaScript, for one. It belongs to the same category of languages as C++ and C, languages we are most likely to see desktop and server applications written in. JavaScript, however, is a language meant only to introduce an element of programming to Web pages, nothing more.

```
The Declarations
A is a variable
B is a variable
```

```
Assigning values
A=5
B=7

Performing Operations
Print A+B

Result
12

Assigning New Values
A=11
B=14

Performing Operations
Print A+B

Result
25
```

...and so on. This way, you don't have to write different programs to add different sets of numbers.

**Functions**

Functions are blocks of code that, once written, can be reused as many times as desired within a program. If you wanted to club the "Add and Print" functionality we just saw in the previous example, you could write a function called AddAndPrint thus (again, this is not real code):

```
   The Declarations
   Function AddAndPrint(A, B)
   (A and B are called Arguments—variables that
the function will either manipulate or use when
it is executing)

   What the function will do
```

```
Print A+B
Using the function
AddAndPrint(A, B)
AddAndPrint(B, C)
```

...and so on. It might seem trivial now, but for more complex operations like calculating taxes, you'd much rather call a function once than write a hundred lines of code every time you need it.

**Objects in Programming**

In programs, objects represent physical entities, complete with their attributes and behaviours. A dog, for example, has a tail—one of its attributes; it also barks—one of its behaviours. If you were to get your JavaScript dog to bark, it would look something like this:

```
Dog.bark();
```

The objects you will encounter when writing JavaScript code will include the browser window—you can use the command "window.open()" to open a new window; there will also be the current document—you can use the command "document.write("My Text")" to write text onto your web page. Everything else is also an object—be it text boxes, images, even your mouse cursor.

## 3.2 Baby's First JavaScript

Here's what JavaScript looks like. This is a simple block of code that will write the text "Digit" onto your web page, once in normal formatting, and once in bold and italics.

```
<script type="text/javascript">
var name = "Digit"
document.write(name)
document.write("<b><i>"+name+"</i></b>")
</script>
```

JavaScript code is always enclosed in the <script> tags inside your HTML document. You can insert code blocks anywhere in the document, but it's always good practice to enclose your scripts within the <head> tags of the HTML. This way, the script will always be loaded before it gets used within the page.

As you can see, you can declare a variable and assign it a value immediately. We then used the "write" function of the "document" object to output text onto the page.

If you want to output two strings of text together (called concatenation), you can use "+". The result of our second "document.write" statement will read "Digit" (without the quotes). Obviously, when your browser sees this text, it will interpret it as the HTML it is, and show you the word "Digit" in bold and italics.

If you've ever seen or written code in C or C++, you might notice that there are no semicolons at the end of each line. However, if you look at some of the code on the Web, you will see lines terminated by semicolons. They are purely optional, and are there so that C programmers don't suddenly feel out of their element when writing JavaScript.

### Comments

If you're writing large scripts, it's helpful to use comments to note down what you're doing, so that anyone reading the code can understand what's going on—yourself included.

```
//this is how you write single line comments

/*
And this…
…is how you write multi-line comments
*/
```

**Protecting your code from prying eyes**

If you write JavaScript code within your Web page itself, anyone can see what you've done just by right-clicking on the page and selecting "View Source" (the actual command changes from browser to browser).

If you don't want visitors seeing the code you've written, you can write it in an external file, and point your Web page to that file from within the <script> tags. Let's assume we're writing JavaScript for www.samplesite.com. This is how you would include an external JavaScript file:

```
<html>
<head>
…
<script  src="/scripts/sample.js"
type="text/javascript"></script>
</head>

<body>
...
</body>
</html>
```

"sample.js" is the file that contains all your JavaScript code. Notice that the path to it is an http path with forward slashes. The full path to it will be www.samplesite.com/scripts/sample.js. To prevent visitors to your site getting their hands on this file, just disable read access on the "scripts" folder when you upload the site—more on this in Chapter 10.

**Declaring Variables**

Variables in JavaScript can be declared by using the "var" statement thus:

```
var a
OR
```

```
var a = 25
```

You can declare variables without using the "var" statement:

```
a = 25
```

Note that variable names are case-sensitive, so "A" is not the same as "a". Variable names cannot begin with numerals—the first character must be a letter or an underscore.

## 3.3 Conditions In JavaScript

You can execute different blocks of code depending on conditions—for example, based on which brower your visitor is using. Here's a list of statements you can use, and what they really mean:

*The "if" statement*

"If a condition is true, execute this code."

*The "if...else" statement*

"If a condition is true, execute this code, otherwise execute that code."

*The "if...else if" statement:*

"If a condition is true, execute this code, otherwise check if this other condition is true."

*The "switch" statement:*

"Check through all these conditions and execute the appropriate block of code."

To illustrate, we'll check which browser your visitor is using, and display a different message for each browser.

*Example: The "if" statement*

```
<script type="text/javascript">
//get the browser's name
```

```
  var browser = navigator.appName
  if(browser==”Opera”)
  {
   //let’s pop open an Alert box
   alert(“Try the Mouse Gestures!”)
  }
  </script>
```

Always indent code that you write within the curly braces “{ }”—it makes it neater and easy to understand.

*Example: The “if... else” statement*

```
  <script type=”text/javascript”>
  var browser = navigator.appName; //get the
browser’s name

  if(browser==”Opera”)
  {
   alert(“Try the Mouse Gestures!”);
  }
  else
  {
   alert(“Well, your loss!”);
  }
  </script>
```

*Example: The “if... else if” statement*

```
  <script type=”text/javascript”>
  var browser = navigator.appName //get the
browser’s name
  if(browser==”Opera”)
  {
   alert(“Try the Mouse Gestures!”)
  }
  else if (browser==”Microsoft Internet
```

```
Explorer")
   {
    alert("Beef up your security settings!")
   }
   else
   {
    alert("Firefox, eh?")
   }
   </script>
```

*Example: The "switch" statement*

```
   <script type="text/javascript">
   var browser = navigator.appName //get the
browser's name

   switch(browser)
   {
   case "Opera":
    alert("Try the Mouse Gestures!")
    break

   case "Microsoft Internet Explorer":
   alert("Beef up your security settings!")
   break

   case "Netscape":
   alert("Firefox identifies itself as
Netscape!")
   break
   }

   </script>
```

The "switch" statement takes the variable "browser" and compares it one by one to the values mentioned in the "case" statements. The "break" statement prevents the browser from

executing the very next line of code and tells it to exit the "switch" block.

**The conditional operator**

There's another way you can check conditions in JavaScript—this one specifically if you want to assign a value to a variable based on a condition. This is how you use the conditional operator:

```
   variable = (condition) ? valueIfTrue :
valueIfFalse

   This is the equivalent of this "if…else"
statement:

   if(condition)
   {
    variable=valueIfTrue
   }
   else
   {
    variable=valueIfFalse
   }
```

## 3.4 Loops

Programming loops let you execute the same block of code over and over as many times as you like—a far sight better than actually writing the same lines more than once. The simplest example would be printing the numbers 1 to 10, or 1 to 100, for that matter. There are two loops you would use in JavaScript—the "for" loop and the "while" loop.

**The "for" loop**

The "for" loop is typically used when you know (or can predict) exactly how many times a piece of code will run. In the above example, for instance, you know that you will be printing a num-

ber 100 times and not more. Here's how you write a "for" loop:

```
for(i=0; i<=100; i++)
{
document.write(i+"<br>")
}
```

Here, "i" is a variable that exists only within the loop. In the brackets, we've started "i" with a value of 0, put a condition that "i" should always be less than or equal to 100, and the "i++" statement increments the value of "i" by 1 every time. The output of this statement will be:

```
1
2
3
…
...
100
```

**The "while" loop**

If we were to translate it into spoken English, the "while" loop effectively tells your browser, "As long as this condition is true, keep executing this block of code." You would typically use a "while" loop to check a condition rather than execute code a specific number of times. Taking the same example as above, here's what the "while" loop would look like:

```
while(i<=100)
{
document.write(i+"<br>")
i=i+1
}
```

## 3.5 Functions in JavaScript

We took a cursory look at what functions are at the beginning of this chapter—let's take the more specific context of functions in JavaScript.

### Writing a function

Writing a JavaScript function is hardly different from writing any old block of code—only this time, you'll be enclosing them in curly braces and giving them names. Once you've written a function, you can make it execute at any time just by calling it by name.

Functions are best written within the <head> tags of your HTML document, so that they load before the document is rendered in the browser. Let's write a function that tells a visitor which browser he or she is using.

```
<html>
<head>
<script>
function checkBrowser()
{
var browser = navigator.appName
alert("You are using "+browser)
}
</script>
</head>
<body>

<input type="button" value="Check Browser!"
onclick="checkBrowser()">
</body>
</html>
```

The statement "onclick="checkBrowser()"" tells the browser to execute the "checkBrowser" function when the button is clicked. "onclick" is an *event* associated with the button—we'll get to events later in this chapter. You can also have functions that accept *argu-*

*ments*, which it will then manipulate within itself. Let's take the example of a function that squares and adds and then displays two numbers.

```
<html>
<head>
<script>
function addAndPrint(a,b)
{
document.write(a+b)
}
</script>
</head>

<body>
<input type="button" value="Add!"
onclick="addAndPrint(5,6)">
</body>
</html>
```

You can now call "addAndPrint" anywhere, and give it any two numbers you please.

## 3.6 Using Pop-Up Boxes In JavaScript

If you've tried out some of the above examples, you will have noticed that the "alert()" function brings up a popup dialog with an OK button. There are two other popup dialogs that you can use in JavaScript:

### The *confirm* box

Ever encountered an "Are you sure you want to close this site?" with an OK and a Cancel button? These are called confirm boxes, and are used quite often in conjunction with "if" and "if... else". Clicking on the OK button sends back a "true" to the JavaScript, and Cancel sends back a "false". Here is a piece of code that closes the window if the visitor clicks on a button and then clicks OK.

```
   <html>
   <head>
   <script>
   function CloseWindow()
   {
   if(confirm("Do you really want to close the
window?"))
   {
    window.close()
   }
   }
   </script>
   </head>

   <body>
   <input type="button" value="Die!"
onclick="CloseWindow()">
   </body>
   </html>
```

Note that This bit of code might not work the same for all browsers. IE, for example, will ask you for confirmation again, and when we tried it on FireFox, it just didn't work.

### The *prompt* box

You would typically use a prompt box to get a piece of information from the visitor—perhaps a name, so you can say hello:

```
   <html>
   <head>
   <script>
   function Hello()
   {
   var name=prompt("What is your name?","name-
less")
   /*
   The first argument for the prompt is the
```

```
question you want to ask, and the second is the
value to use by default
   */

   alert("Hello, "+name+"!")
   }
   </script>
   </head>

   <body>
   <input type="button" value="Hi!"
onclick="Hello()">
   </body>
   </html>
```

## 3.7 Events In JavaScript

Events are probably where you'll find JavaScript used the most. Anything that "happens" on your Web page is an event—a mouse click, the cursor moving over an image, hitting a key on the keyboard, and so on. To each of these events, you can associate a function, called an *event handler*, which will execute each time the event occurs. We've already seen the "onclick" event in the preceding examples—the function that is assigned to it using the statement "onclick = "[function name]"" is now the event handler.

Some of the most common events are:

**onChange:**
This event occurs when you change the text of a text box or text area and move the cursor out of it (either by clicking somewhere else or using [Tab]) or when you change the selection in a drop-down menu, to state the more common uses.

*Usage:*

```
<input type="text" onChange="doThisNow()">
```

**onload:**
This event occurs when the page finishes loading. You would assign it an event handler in the opening <body> tag:

*Usage:*

```
<body onload="greetings()">
```

**onUnload:**
This event occurs when you either close the window or navigate away from the page. This, too is assigned a handler in the opening <body> tag.

**onMouseOver *and* onMouseOut:**
These two events are used primarily to create animated buttons and menus. To illustrate, let us take an example—an image that will act as a link to your home page, and display another image (perhaps a different colour) when the mouse cursor moves over it.

```
<html>
<head>
<script type="text/javascript">
function mouseOver()
{
document.logo.src ="logo_green.gif"
}
function mouseOut()
{
document.logo.src ="logo_blue.gif"
}
</script>
</head>

<body>
<a href= "http://www.mysite.com"
onMouseOver="mouseOver()"
onMouseOut="mouseOut()">
<img src="logo_blue.gif" name="logo" />
```

```
</a>
</body>
</html>
```

There are simply too many events to list here—you will encounter more as you keep learning JavaScript. Refer to chapter 11 for books and Web sites to help you out.

## 3.8 Manipulating The Browser Window

In JavaScript, you can use the "window" object for some useful (also annoying and fun) tasks. To open a new window, use this statement:

```
window.open("http://www.putyourURLhere.com")
```

*Note:* The first things that pop-up blockers look for is a "window.open()" statement that is either associated with the "onload" event or no event at all. So if you use the statement in any of the aforementioned manner, all self-respecting browsers will block that code. Similarly, to close a window, you can use:

```
window.close()
```

### A fun script to try

Let's write a script that should freak people out a little. After a small time delay, this will move the browser window to a new location—something your visitor obviously won't be expecting.

```
<script>
setTimeout("window.moveBy(200,-200)", 5000)
</script>
```

*Note: This script works only in IE and Firefox.*

The "setTimeout" function executes the statement in quotes

after a delay of 5,000 milliseconds (5 seconds). It comes especially handy if you have a part of your page that needs to be updated at fixed intervals.

The "window.moveBy(x,y)" function moves the window x pixels to the right and y pixels below. If you give it a negative number, the direction will reverse.

Covering JavaScript adequately would probably run into tens of *Fast Track*s, but this should help you understand at least the basics. If you want to learn more, you should invest in a bigger book or turn to the Web. To find out about books and sites, turn to Chapter 11.

# PHP

The origins of PHP can be attributed to Rasmus Lerdorf, a Danish-Canadian programmer. It was initially known as *P*ersonal *H*ome *P*age tools, and was released on 8 June 1995. In 1997 the acronym was changed to *H*ypertext *Prep*rocessor. The years following 1997 saw a tremendous spurt in the number of users of PHP, and there was even a more organised approach to making improvements instead of it being a small team effort.

## 4.1 PHP—The What, Why And Whodunit

PHP is a server-side scripting language, and is the open source alternative to Microsoft's Active Server Pages (ASP). The two terms *Server Side* and *Scripting Language* deserve mention first. A server side language resides on the Web server, and users sitting at their respective workstations can interact with the language through the CGI (Common Gateway Interface), or directly through the Web server. What actually happens in a server side language is the code is designed to run on the server; for example when PHP code is encountered in a page requested by a visitor, the server executes it and the result is sent to the client. The benefit is that no plugin is required at the user's end, because nothing is downloaded to the browser. Servers-side languages are more powerful because, very simply put, they run on servers, and are not dependent on the capabilities of an unknown workstation present anywhere on the Net.

A Scripting Language is unlike other programming languages because it is interpreter-based, as opposed to compiler-based. Being an Interpreter-based language, it's easier to modify because individual lines of code can be executed, as opposed to compiler-based languages, where a complete sequence needs to be written.

PHP is gaining popularity every passing moment, and why not? The OSS (Open Source Software) tag means the entire code in which it was developed is openly available for whatever modifications users deem necessary. PHP is cross-platform, meaning it can be run on any Web server, and along with MySQL (a small database server) can be, for example, used to develop under Windows, and serve on a Linux platform or vice versa. OS independence is another strong feature—unlike ASP, which requires the Windows platform. Besides this, PHP is free!

PHP sees most frequent use with Apache (the Web Server) on most platforms. On the Windows side, PHP can be used with Microsoft's IIS (Internet Information Services). To get using PHP properly, you'll need a basic knowledge of HTML and XHTML.

The biggest advantage that an application can get by going open source is the sheer bounty of talent in the form of thousands of developers who dedicate time and grey matter to simplify and/or improve the application. Another major advantage PHP enjoys is that it's extremely light on system resources.

Another way of looking at PHP's popularity is the growing number of Web sites. A site today is very different from a site of a few years ago, simply because of its users. A typical user is not satisfied with an ordinary site with some text and pictures. He wants something attention-grabbing, something that serves not only his purpose, but also makes browsing fun. Animations and interactivity form a large part of that fun factor, and coding in PHP is simple—you can achieve a lot more with fewer lines of code.

PHP code is similar in syntax to Perl and C. For those not interested in getting too much into coding, there are PHP-based CMSes (Content Management Systems) available, like PHP-Nuke, which don't require the user to have any programming knowledge. However, the flexibility of PHP cannot be denied, and all that PHP-Nuke allows is basic Web page manipulation, so we shall refrain from such front-end efforts. The basic purpose of PHP is server-side coding, so lets gets down to it!

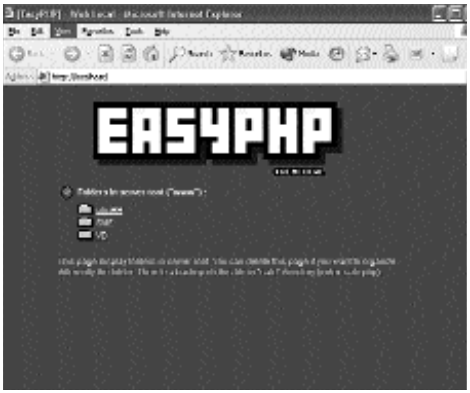
## 4.2 Prerequisites

For the platform and environment we used EasyPHP version 1.8, which we've provided on the *Digit* CD. The main reason for using EasyPHP is ease of use—it installs The Apache Web Server and MySQL automatically, and configures everything, making your job as a relative beginner infinitely simpler. EasyPHP is not greedy for resources, so a system that is even a couple of years old will easily handle all the applications thrown at it.

PHP is a programming language, unlike HTML, which is simply a markup tool, and PHP can even be embedded inside an HTML document. As you will see in the examples later on in this chapter, PHP code is distinguished as executable by the PHP interpreter on the basis of it encountering "<?php". This signifies that the following lines are actually PHP code, and the execution is terminated by "?>". This combination can be used multiple times in a document: each time, the proper beginning and termination encapsulate PHP code, while the remaining body of the document can contain HTML. This is what we mean by "embeddable." Clicking on "View Source" in your browser doesn't do anything except display HTML code. This is because PHP scripts are executed on the server (since PHP is server side and the installation resides there), and the resulting HTML is sent to the browser on the workstation from where the execution commenced.

PHP code can be written in Notepad, and many HTML editors support it as well.

## 4.3 Getting started



Use a browser to display the result of your PHP code

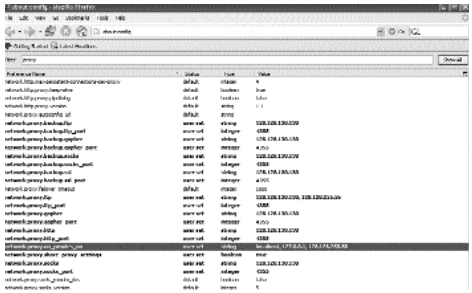
Installing EasyPHP is a piece of cake, or rather a sip of tea. It's snappy for one, and totally automated. Browse through to your EasyPHP directory; you will find a folder named "www", among others. Inside this folder is a .php file called "Index". Simply opening this file in Notepad will display code, as we mentioned earlier, as the scripts are server executed. Your first lesson begins here.

Start EasyPHP from the Start Menu, and open your browser. Type in "http://localhost" and you will see the default EasyPHP page. In fact, after using Notepad or Wordpad for creating/editing PHP code, simply save it as a .php file and you can simply use the syntax //localhost/<filename>.php in your browser's address bar, and the Web page you created will appear in the browser window.

If you're using another computer as your server (meaning your PHP installation resides there) you can simply type in the IP address of that machine into your browser's address bar. If you're using your own machine as a server as well as Web server, you may not be able to view the PHP default page, or any other Web page by using your own IP unless you follow these steps (only applicable if you use a proxy server to connect to the Internet).

1. In your browser window address bar, type in “about:config”
2. In the filter option, type in “proxy”
3. In the search results, navigate to “network. proxy.no_proxies _on”
4. Double-click on this—you will see a box with one IP as a default value, typically 127.0.0.1. Add a comma and enter your own IP
5. You can now use your own IP address in the address bar.

Here’s a screenshot of about:config; highlighted is the network.proxy.no_proxies_on, the entry where the hosts IP address is to be added.



The about:config IP setting

Note that *about:config* only works with Mozilla and Opera. IE users will need to go to Control Panel > Internet Options > Connections > LAN Settings > Bypass Proxy Server for Local Addresses. This entry should be checked.

Let’s get down to creating your very first code in PHP. Before we take the plunge, however, there are a few rules to remember.

1. The file containing the PHP code needn’t be an executable; rather, the .php extension does its magic here.
2. PHP looks for opening and closing tags to distinguish between PHP code and the rest of the html document. These start and stop tags are very simply “<?php”, which will cause *parsing* of any code found after it. Parsing is, very simply put, syntax analysis, and the program devoted to this task of analysing an input sequence in order to determine its grammatical structure is called a *parser*. The closing tag “?>” will simply cause code placed after it to be treated as HTML, until, of course, another “<?php” is encountered. This makes PHP embeddable, and most Web pages contain PHP code embedded within the html document. You can also use short tags—just “<?” and “?>”

3. Like C, every line of PHP code must end with a semicolon (;), which indicates a line termination.
4. Variables are declared with a $ symbol; a variable may contain an alphanumeric string, numbers, or an array. Note that in the example below we have declared a variable named "digit", which is preceded with a $ symbol.
5. Once again, like C and C++, PHP supports comments enclosed within /* and */. Nesting of comments is impossible, however, as the comment ends as soon as the first */ is encountered. Note that we have used the // operator, which is used for single-line comments. The /* and */ works best for multiple-line comments, and in such a case saves the user from remembering to use a // for every line.

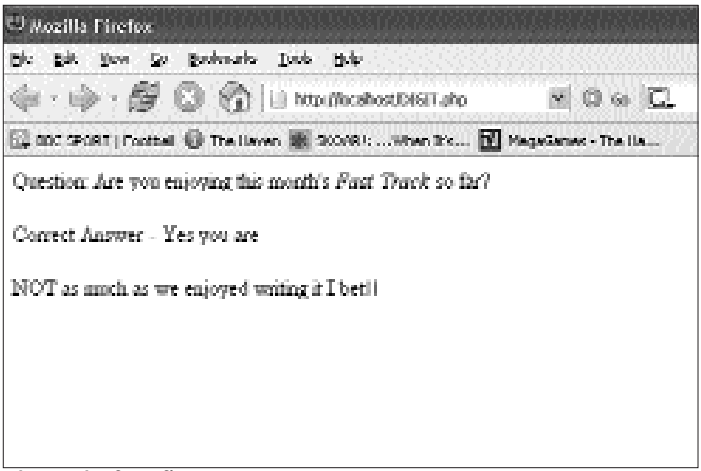
Let's look at a sample now, our first little program:
**Example 1**

```
   <?php
   // this is our first program
   // the formatting operators have also been
used here, like <i>, which is the // italics
operator, while <br> simply causes the state-
ments following to go to // the next line. Note
the use of "//" these are the comment inserts
   // and statements on the same line as them
are not executed
   echo "Question: Are you enjoying this month's
<i>Fast Track</i> so far?<br><br>";
   $digit=1;
   if ($digit==1)
    {
           echo "Correct Answer—Yes you
are<br><br>";
           echo "NOT as much as we enjoyed writ-
ing it I bet!!";
    }
   ?>
```

The start tag (<?php) is first as usual, followed by the echo command, which displays a message or "string" on the screen. The <i> is used to display text in italics; we then assign a value to the variable "digit", while declaring it.

The *If* statement follows, with a condition to display some text if its parameters are met, i.e. if the variable "digit" is equal to 1, which it is, as we assigned the value just above.

As seen from this example, the similarity to the C/C++ and Unix Perl-style programming is strong.




The result of our first program

The file, named DIGIT.php, was placed in the "www" folder, where a simple "//localhost/ DIGIT.php" typed into the browser pane would open the result of our labour directly in the browser window.

Having used the *If* statement above, it would be apt if we discuss the various conditional operators that PHP supports.

## 4.4 Conditional Operators

We've seen how conditional operators work, in chapter 3. These include the *if...else* statement, which we've used in the example above. Then there is the if...elseif statement, which isn't as efficient as the *switch* statement when multiple conditions are possible. The switch statement is perfect for use when multiple conditions are present, and looks much more streamlined than the blockier coding that would result if the *elseif* statement were to be used.

Then there are the *for* and *while* loops, the syntaxes of which are as follows:

```
for (initialization; condition; increment)
{
    code to be executed;
}

and

while (condition)
code to be executed;
```

There is also the *do-while* statement, which causes execution of a block of code at least once, and is then based on the fulfilment of the condition stated in the *while* statement.

Let's move on to our next example, since it's much easier to follow programming syntax, with a practical hands-on! PHP has a number of conditional operators, and the *for*, *while*, *switch*, and if statements can be used. The *for* and *while* loops have been used in the example below.

**Example 2**

```
<?php
$a=1;
$b=2;
$m=1;
/* The For loop contains a condition for the
variable 'B' being less than or equal to 10, in
the final part of the for statement b has been
incremented, while 'A' has been reset to the
value 1. Note that the first part of the For
statement has been left out, i.e. the initiali-
sation part */
for (;$b<=10;$b=$b+1,$a=1)
{
 while ($a<=12)
 {
 $m=$b*$a;
// Variable m has been assigned the product
value of variables a and b //
 echo "$b * $a = $m <br>";
       $a=$a+1;
 // the variable 'A' needs to be incremented
}
 echo "<br>";
}
?>
```

This program very simply displays the product of two variables, to which we have assigned values. In simpler words, this program displays maths tables up to 10!

We assign values to $a, $b and $m while declaring them. Use of the *for* operator sees us assigning a condition to the variable $b, so the statement loops till $b reaches the magic figure of 10. At the same time, we've incremented $b ($b=$b+1) every time the loop is run.

A nested loop has been created using *while*, where we command the statements within the inner brackets to execute, until the value of the variable a is equal to 12. A simple multiplication operator is used next to actually compute the product, while the display statement, (via the *echo* command), ensures that you see the tables displayed in your browser window. Finally, after every loop we have incremented the value of $a.

If you notice, we have added the statement "$a=1" inside the *for* statement, else once the value of $a becomes 12, the program will terminate after just displaying one set of the two-times table.

Let's see some more practical examples of PHP code. Below is a program that changes the background colour of the browser page based on which day it is. A simple array (we have covered arrays later in this chapter), $bgcolor, has been defined, with the respective colours for the seven days of the week. Note that the colours defined are in hexadecimal format. Hexadecimal format is a very compact and easily convertible to and from other systems, like the decimal and binary system. A base of 16 is used, including numbers from zero to nine (0—9), and the first six letters of the English language, i.e. A, B, C, D, E and F. Another variable "$today" which is assigned the "date" function, and a variable x. The date function as you might have guessed is responsible for getting the current system date.

The simple output of this program will be the statement "This just changes the colour of the screen based on the day of the week", with the background colour of the screen of course changing according to the day of the week.

**Example 3**

```
   <html>
   <head>
   <title>Background Colors change based on the
day of the week</title>
   </head>
   <?
   $today = date("x");
   $bgcolor = array(
   "#E6EDFF", "#FFFFFF", "#FBFFC4", "#E9FFE6",
   "#FEF0C5", "#FFE0DD", "#F0F4F1"
   );
   ?>
   <body
bgcolor="<?print("$bgcolor[$today]");?>">
   <br><br><b>This just changes the colour of
the screen based on the day of the week
   </body>
   </html>
```

## 4.5 Functions

Although functions have been covered in the previous chapter, any reference to programming needs a reference to functions as well, so here we go again! A function is an independent module of code, that can be executed either as part of a program, or can be called from any other part of a program to be executed. Functions are one of the most important aspects of programming. In a large database, instead of individually adding, deleting or modifying records (the three default actions that may could be performed on a database, as routine maintenance), individual functions can be written for the same. Whenever a record is to be edited; the modification function can be called for execution, saving the programmer from extra code writing, and of course, program logic.

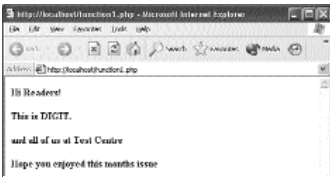
Functions can be written to return values, or write output information. Functions can also be nested, meaning one function can contain one or more functions within its brackets. Besides user-defined functions, PHP has some 750 inbuilt functions.

We've given two examples below; in the first example, a function is used to simply display text. In the second, we see a function returning values.

**Example 4**

```
<?php
function Name()
        {
    echo "DIGIT";
        }
function name1()
  {
    echo "Test Centre";
  }
echo "<b>Hi Readers!<br><br><b>";
echo "This is ";
Name();
echo ".<br><br> and all of us at ";
Name1();
echo "<br><br> Hope you enjoyed this months
issue"
?>
```

Our very humble program, when executed would look something like this:



Using functions to display text

Lets take a look at a function returning a value based on a simple addition.

**Example 5**

```
<?php
function add($a,$b)
  {
  $total = $a + $b;
  return $total;
  }

$sum = add(5,8);

echo "5 + 8 = ".$sum;
?>
```

A function, "add", is declared, with the parameters $a and $b, two variables that are being passed. The sum of these two variables is being passed to a variable $sum, where the result of the addition is displayed.

## 4.6 Arrays

An array is a data structure capable of storing one or more than one value in a single value. PHP supports arrays as a data type as well. Arrays are very useful to store large numbers of similar variables.

An array is similar to a matrix; every element of an array has its own address, and can be referenced using that address. Arrays have great practical importance in any programming language, and particularly in PHP. Suppose a user wishes to load a list of clients from his database to use on his Web page; he/she would typically load it into an array. In all practical terms it would be highly inefficient to declare variables for each client, wouldn't it? Here's where array's come into the picture: not only is the code minimised, but efficiency in terms of storage and execution of scripting code can maintained.

In PHP arrays can be of three types:

1. Numeric arrays—here a numeric ID key is used to store elements. This key can be manually or automatically assigned to each element.

**Example 6**

```
   $fruit =
array("Mango","Apple","Pineapple","Orange");
```

In the above example, the ID keys are assigned automatically.

**Example 7**

```
          $fruit[0] = "Mango";
                      $fruit[1] = "Apple";
          $fruit[2] = "Pineapple";
          $fruit[3] = "Orange";
```

This achieves the exact same result as Example 6, only we have assigned the ID keys manually here.

2. Associative Arrays—here the numeric ID key is assigned a value. Useful when the array is much larger; each of the elements can be referenced by calling them directly, or using the numeric value.

**Example 8**

```
   $Q3frags['Maximus'] = "100";
   $Q3frags['Vandal'] = "65";
   $Q3frags['Andreophile'] = "48";
   $Q3frags['Badjag'] = "52"
```

If you look at example 2, you will see an identical approach to array declaration, we could also have defined similar to example one, which would look something like this:

```
   $Q3frags = array( "Maximus"=>100,
"Vandal"=>65, "Andreophile"=>48, "Badjag"=>52;
```

Both the above examples achieve the same thing, only in two different ways of declaring. Just make sure to choose a particular syntax and stick with it—there's nothing more irritating for a coder to come across similar statements using different alternate syntaxes.

3. Multidimensional Arrays are a group of arrays declared within a single larger array. Each element can also be an array.

```
$amdcpu = array(
  "FX"=>array
                (
                "FX60",
                "FX57",
                "FX55",
                "FX53",
                ),
"X2"=>array(
                "4800+",
                "4600+",
                "4400+",
                "4200+",
                "3800+",
                      ),
        "Venice"=>array(
                "3800+",
                "3500+",
                "3200+",
                "3000+",
                            )
);
```

In the above example, we have defined an array "amdcpu", which is the main array, or a multidimensional array. This array contains a number of smaller arrays, each with their own entries denoting processors from a particular family. As you can see, it's simply a case of an array containing another array!

**Working with Files**

PHP has inbuilt functions for working with files. Here are some basic commands needed to get you started with file handling. File handling is an integral part of PHP: it allows the programmer to manipulate an existing file for either reading, or modification. PHP scripts are frequently used to work with data stored in separate files, be they documents or spreadsheets, and the following commands allow programmers to manipulate files that contain data pertinent to the very purpose of writing the programming script in the first place.

**fopen()**: This function is used to open files in PHP. There will be two parameters inside the parentheses, the first being the name of the file to be opened, and the second parameter specifying the mode in which it should be opened. If fopen() is unable to open the file, a zero, indicating false, is returned.

**fclose()**: the exact reverse of fopen(), used to close files opened with fopen().

**fgetc()**: This command is used to read a single specified character from a file. Note that the pointer has to be moved to the next character once a match is found. This command can also be used to read the contents of a file, character by character, as we've done in the example below. By far one of the most important file handling commands.

**feof()**: Used when a particular condition is to be checked until the end of the file is reached. This command will return a "true" when the end of a file is reached.

**An example:**

```
   <?php
   $f=fopen("to_our_readers.txt","r") or
exit("Unable to open file!");
   // Using while statement to search till the
```

```
end of the file is reached
   while (!feof($f))
   {
   // each character is picked up one by one and
displayed i.e. the entire
   // contents of the file to_our_readers
   $x=fgetc($f);
   echo $x;
   }
   fclose($f);
   ?>
```

We simply created a .txt file titled "to_our_readers". In the first statement, either the file is opened in memory, or a message is displayed: "unable to open file". The While statement will loop as long as the end of the file isn't reached; one reached, the program will exit. Note that it is good practice to always close a file you open. Here the term Open doesn't mean open to view; the file is simply opened in memory. One cannot actually view its contents, except by using some programming logic similar to what we have used above.

**Form Handling**

A form in HTML simply denotes a section of a document containing normal content, markup or special elements like checkboxes, radio buttons, menus etc. and the labels for them. This

Form handling

form is then completed by users, who may add text, select options from a menu etc. PHP interacts very well with html forms. One important advantage with PHP is that any form in your HTML document is automatically available to PHP scripts anywhere in that document.

Here's an example:

```
<html>
<body>
Welcome <?php echo $_POST["name"]; ?>.<br />
You are <?php echo $_POST["age"]; ?> years old!
</body>
</html>
```

We've created a .php file with the above code. If you attempt to execute this file, however, you'll get an error simply because the variables haven't been assigned any values. We now create another .php file, with the code as given below.

```
<html>
<body>
<form action="formhandling.php" method="POST">
Enter your name: <input type="text"
name="name" />
Enter your age: <input type="text" name="age"
/>
<input type="submit" />
</form>
</body>
</html>
```

This code actually redirects to the file mentioned (in this case "formhandling.php"), passing on the values for "name" and "age", and uses these values with the output statements given in the previous script.

In the next chapter we'll focus on site design tools, a far cry from PHP scripting, but nonetheless a necessary part of Web site integration and design.

A simple page with values passed from another PHP script

# Site Design Tools

If you want to design a Web page and don't want to learn too much coding—no problem! There are a number of tools available that can be used to create a Web site which, depending on your creativity, can even look as if it has been designed by a professional.

Earlier, Web sites were written in basic HTML (HyperText Markup Language), a markup language that gives a Web page basic structure such as headings and paragraphs. This was an easy way to view Web pages for people who had only recently migrated from the text-based shell account to a TCP/IP account, and provided a much richer Web surfing experience because they could view images for the first time.

As the years went by, HTML became more and more complex. New forms of layout devices—such as tables—came to be used, and were found to be a better way to place data. Then came CSS or Cascading Style Sheets, a stylesheet language that is used to describe the style of elements in a document marked up using a markup language. Database integration technologies such as server-side scripting also changed the way the Web is made.

A Web site is a patchwork of files of various types such as HTML, images, multimedia, PDF, and more. In order to keep them linked to each other, code written in a markup language is necessary, and there are various tools aimed at doing just this. To design a complete Web site, four kinds of software are necessary:

- Code editors
- Web browsers
- Image editors
- Multimedia editing and design tools, plug-ins, etc.

You will learn how to work with various code editors in this chapter, so as to get yourself started with building your very first Web page.

# 5.1 CoffeeCup HTML Editor 2006

CoffeeCup is an HTML editor with drag-and-drop support and an inbuilt FTP uploading facility. Tables, frames and forms can all be created using easy-to-use Wizards. It supports HTML 4.0 and XHTML tags. It also includes Wizards for images and links, and a Quick Start so you can create Web pages in no time.

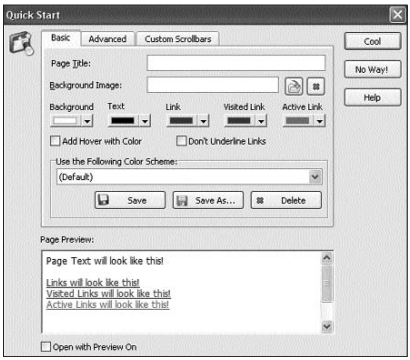
If you wish to learn HTML, you can use the Code Editor and the Visual Editor. CoffeeCup comes with more than 100 DHTML and JavaScripts, a DHTML Menu wizard, 25,000 graphics and photos including more than 1,000 XP Style Icons, and access to more than 500 free Web-site templates. It includes an HTML Code Cleaner, which rids the HTML code of unnecessary data and provides clean and easy-to-understand code. Also included are a Project Manager, a Flash Text Wizard, a Color Scrollbar Wizard, a StyleSheet Editor, and a List Wizard.

### 5.1.1 Getting started with CoffeeCup

When you launch this HTML editor, you will be greeted with a dark screen with a CoffeeCup logo and a Tip of the Day. Click on the File menu and select New from Quick Start. The Quick Start window will appear. Enter the title of the page in the Page Title box. Enter the background image for your Web page in the Background Image box. You can now choose the colours of the background, text, links, and visited links and active links, and preview on the right how it will appear. Alternatively, you can choose a preset colour scheme from "Use the Following Color Scheme" drop-down box.

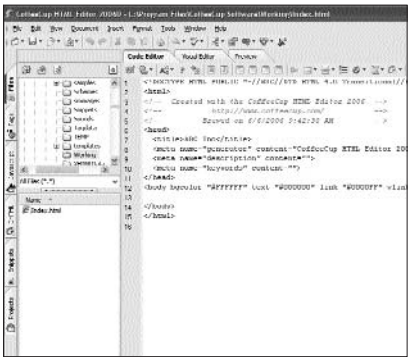
The CoffeeCup main window

Click on the Advanced tab to key in the Meta information that is accessed by search engines, such as a short description of your page and the keywords associated with it. You can also specify a redirect URL if needed. Once you are done filling, click on the Cool button and a new page will open.



The Quick Start window in CoffeeCup

You will view the Code Editor by default. Click on the Visual Editor tab to view the visual mode of the editor, which we shall be using henceforth. Code Editor is the mode where you can directly edit the HTML code, whereas in the Visual Editor, you can actually view how your page will appear, and use the drag-and-drop support to place objects on your page. You will be prompted to save the file before switching to the Visual Editor, so save it as index.html.



The Code Editor View in CoffeeCup

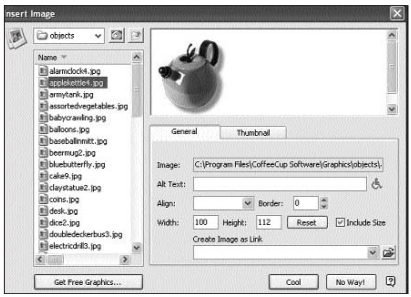
Once you are in the Visual Editor, you will see a blank screen. You can now start creating your own Web page.

### 5.1.2 Adding text objects to the page

To start with, we shall add some text to our page. Click on the Format menu and mouse over to Font > Font Wizard. Here you can set the font, size, colour, and more. Now type in whatever you want to appear on your Web page, and it will appear in the chosen font style.

### 5.1.3 Inserting an image

Now let us add an image to the page. Under the Insert toolbar menu, choose Insert, or click the Insert Image icon just above the edit area.



Inserting an image into your page

Select an image from amongst the free graphics provided with the program, or choose an image of your choice from the left of this window. Enter the path to the image in the Image box. Enter the text that should appear if the image is not available or broken, in the Alt Text box. You can also set the image alignment and the border, as also the height and width of the image. You can also make the image clickable as a link by placing a URL in the "Create Image as Link" box.

Clicking on the Thumbnail tab will provide the option of inserting a thumbnail of the original image into the page instead of the original. The user can then link back to the original file.

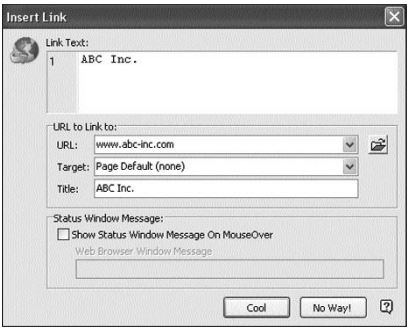
You will be prompted to copy the image to your working folder. Click Yes.

### 5.1.4 Inserting a link

To add links to your page, click on the Insert menu and then on Link. The Insert Link window will open.

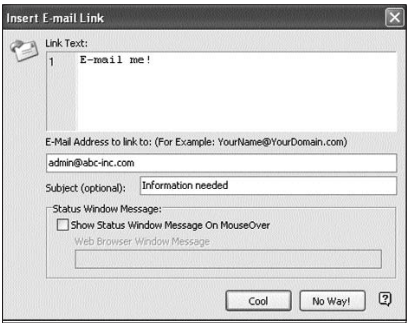
"Link Text" is the text that will appear in the document that the user will click on to access the link. "URL" is the URL of the Web site being linked to. "Target field" can be left blank unless the user has a specific frame they want the linked page to appear in. "Title" displays the title of a link in a small box when the user hovers over

it with the mouse. Text entered in the Status Window Message will be displayed at the bottom of a browser in the status area. Click on the Cool button after you're done.



Inserting a link into your page

In a similar way, you can insert an e-mail link by clicking on Insert > E-mail Link. An Insert E-mail Link window will open. Again, Link Text is the text that will appear in the document that the user will click on to access the link. "E-Mail Address to link to" is where you want the e-mail sent. You can also specify a default subject for the e-mail. All e-mail received from this link will have this subject. Text entered in the Status Window Message will be displayed at the bottom of a browser in the status area.



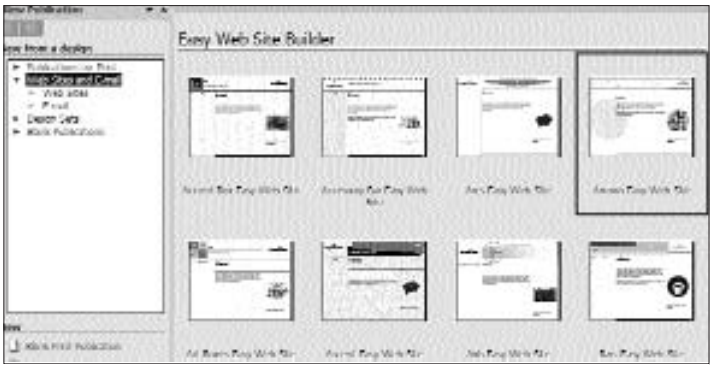
Inserting an e-mail link into your page

Always remember that the inserted text, image, link or e-mail will appear at the current location of the cursor, and you can always change this later. Finally, click on the Preview tab to see how the Web page will appear in a browser.

## 5.2 Microsoft Publisher

Microsoft Office Publisher is a basic Web design and print layout design software bundled with the Microsoft Office suite. You can access it from Start > All Programs > Microsoft Office > Microsoft Office Publisher. This is a simple tool, but contains extensive templates to make the e-mail / Web design easy. Just use the Wizard and chose from the various options at every stage, and your site is ready to roll!

When you open Publisher for the first time or when you click on New Project, you will be presented with options for what you wish to do. For Web design, choose Web Sites and Design. Once you select the Web Sites and Design option, you are immediately presented with an expanse of templates to the right of the screen. These templates are categorised as Easy Web Site Builder, 3 Page Web Site, Product Sales and Professional Services. These templates can, of course, be used for any content—they are templates after all.

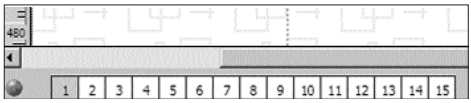



Selecting the design type and templates in MS Publisher

Once you select the template of your choice by clicking on it, Publisher opens it up for you to edit it and add the required text. Depending on the template you have chosen, standard Web site links such as Home, About Us, Contact Us, etc. will be available. You can change the wording of these links and add the text for each sec-

The drawing toolbar

tion. Images in the template can be changed by right-clicking on them and selecting Change Image > From File. There is an option to add a caption to the images right below each of them.



Select the section or page number to edit its contents

At the bottom of the Publisher window you will see the pages being numbered. To edit the different parts (rather, the links—such as Home or About Us) of the Web page, just click on the numbers at the bottom. Each of those numbers takes you to a "part" or section of the site. Standard elements such as the logo, company name, etc., will remain the same throughout the different sections.

You can move the text boxes and images around the page to suit your liking. There is also a vertical and horizontal ruler which you can use if you are looking to align different elements. The scale is graduated in terms of resolution rather than physical dimensions, so you can design your site according to the target resolution. Right-clicking or double-clicking on a bullet or image gives you the Format Autoshape option, using which you can change its colour. This works similar to the Format Autoshape option in Microsoft Word or PowerPoint.

To attain even more customisation, you can add your own drawings using the Line, Rectangle, Oval or Arrow shape tools and add your own text using the Text Box, which are available through the Objects box. If this box is not visible, click on View > Toolbars and select the Objects box to have it displayed. If you wish to represent data through tables, just "draw" a table anywhere on the page. In the Task Pane at the left of the page you are designing, you will see even more templatised options for Font and Colour Schemes. If none of the options are to your liking, you can select the ones that are closest to your pref-

The Task Pane funtions and navigation options

erence, and then customise them. Under Publication Designs in the Task Pane, the different designs available give you different backgrounds and layouts, which, again, are customisable!

Under Web site options, you select the orientation of your navigation links (links to different sections of your Web site). It is standard to place the links to Home, About Us, etc., vertically, though some designers place it horizontally at the top. But placing it at the bottom is a no-no unless you are daring to be different. It makes most sense to keep the links where they are easily visible.

You can preview your design at any time by clicking on "Preview your Web site" in the task pane. Save the file by going to File > Save As and choosing "Web page". The extension will be .htm (if you wish to edit this file with Publisher at a later time, save it as "Publisher File"). When you save your Web page as a .htm file, a folder is created, which contains the images and other non-text elements. Just upload this folder to the same directory (*not* a sub directory) as the .htm file, and your Web site is ready!

## 5.3 Serif WebPlus 6.0

The Serif WebPlus 6.0 main window

Serif WebPlus 6.0 is another easy-to-use code editor, and it comes free. It has many features worth mentioning. You can open multiple publications at a time, and even tile them and drag-and-drop objects between them. You can choose from dozens of preset colour schemes to change the overall appearance of your page with a single click.

There is a host of inbuilt logos, Flash animations, text effects, and other special effects that you can drag-and-drop onto your page as it suits your needs.

The various panels provide rapid and easy visual access to commonly used controls such as fonts, line settings, the colour table, etc. There are 27 graphics shapes including stars, triangle, arrows, polygons, and callouts to add fun and meaning to your Web site. The Table Editor lets you create sophisticated, colourful tables, which can include formatted text and spreadsheet formulas. The Calendar Wizard allows you to create a calendar with a choice of sizes and design options. In addition to all this, there is a collection of 20,000 assorted Web-ready graphics, including animations, pictures and page elements.

### 5.3.1 An example of how to create a Web page

When you launch WebPlus, the WebPlus Startup Wizard will launch. It presents you with five choices.

- Use a Page Wizard, to create an instant publication
- Start from Scratch, to get a blank page to work on
- Open a publication, to edit your own WebPlus files
- View a QuickTour, to see the menu of introductory tutorials
- Online Resources, to access the Serif and VisualCities Web sites

To start creating your own Web page, you need to click on Page Wizard. This will launch as a Startup Wizard window. Select a Web category on the left and examine the samples on the right. Click on a sample that suits your needs and click on Next. The Wizard now leads you through a series of steps that let you see the publication being assembled. We chose the "Other" category and "Generic 02" from the samples. Click on Finish.

The startup Wizard in WebPlus

Enter your address and other details

In the next window that opens, you will be able to see a preview of your Web page. You can enter your name, the name of your company, and the company slogan. Click on Next to go to a page where you can enter your address. Then, click Next. You can now enter your contact details. These include your telephone, mobile and fax number as well as your e-mail address and the URL of your site. Click Next.

Enter your name, company name and slogan

On the following page, you can enter the titles for various pages such as the home page, information page, service page and contact page. Click Next to go to the final page of the Wizard, where you can choose a suitable colour scheme for your page. Click Finish.

On the right side of the WebPlus window, you'll see a set of panels known as the Studio toolbar. It is a cluster of seven special-purpose panels.

1. The Color panel lets you apply color and/or shading to an object.
2. The Color Scheme panel displays a list of available colour schemes that lets you instantly revise colours in a Page Wizard publication. You can apply a colour scheme to new elements, customise scheme colours, or even create entirely new schemes.
3. The Text panel provides a visual preview of different font and text styles, and also allows you to change the style and font of text objects.
4. The Lines panel allows you to set the weight and type of lines and shapes.

5. The Gallery includes a wide variety of pre-designed elements—graphics you can drag and drop.
6. The Portfolio is a container for storing design objects (pictures, text blocks, and even unlinked text frames) you'd like to reuse in different publications.
7. The Wizard panel lets you edit Gallery objects or revisit the choices you made when creating a publication using a Page Wizard.

When you are done creating the page, click on File > Publish Site, and then select "To Disk Folder" to save it to your hard drive.

## 5.4 Macromedia Dreamweaver 8

This is a state-of-the-art software that lets you easily, quickly and efficiently design a Web site of your own. Dreamweaver lets you do both hand-coding HTML if you are a coder, or work in a visual editing environment. The visual editing feature is especially useful and easy for novices who know nothing about coding. It lets you create Web pages without writing a single line of code. You can view all your site elements or assets and drag them from a panel directly into the document.

Dreamweaver provides you a full-featured coding environment including code-editing tools (such as code colouring, tag completion, a coding toolbar, and code collapse) and language reference material on CSS, JavaScript, ColdFusion Markup Language (CFML), and other languages. You can also import your hand-coded HTML documents without reformatting the code. You can later reformat the code with your preferred formatting style.

In addition to the above, Dreamweaver also lets you build dynamic, database-driven Web applications using server technologies such as CFML, ASP.NET, ASP, JSP, and PHP. If you prefer to work with XML data, Dreamweaver provides tools that allow you to easily create XSLT pages, attach XML files, and display XML data on your Web pages.

Getting started with Dreamweaver

### 5.4.1 Getting started with Dreamweaver

Launch Dreamweaver. If you're launching it for the first time, you will be able to view the start page. You can choose a type of document from here. Here you can open a new document, create a new document from amongst the various types, or choose a sample design upon which you can build your own Web page.

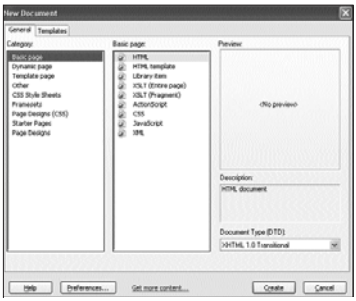
If you want more control and want to customise the type of Web page you wish to design, you need to go to File > New. You will view a New Document dialog box as shown in the screenshot. The various categories of Dreamweaver documents appear in a list to the left. Select one of them, and the specific document types with their icons will fill the list to the right.

The following are the types of Web pages you can choose from.

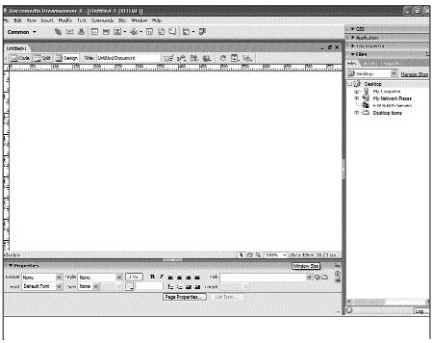
- Basic page: Standard client-side document types, such as HTML, ActionScript, CSS, JavaScript, and XML
- Dynamic page: Standard server-side document types, such as ASP, ASP.NET, ColdFusion, JSP, and PHP
- Template page: Blank Dreamweaver document templates for static and dynamic sites
- Other: Specialised client-side document types, such as Java, WML, C#, VB, VBScript, and plain text
- CSS Style Sheets: Predesigned stylesheets
- Framesets: Predesigned framesets
- Page Designs (CSS): Predesigned layouts using CSS layers
- Starter Pages: Predesigned layouts with images
- Page Designs: Pre-designed layouts using tables

Let's start with the Basic page. To create a standard client-side-only Web page, you can select Basic page from the list. Then, from

the Basic page list, select HTML. Click Create, and Dreamweaver opens up a blank Web page. Don't do anything as yet; first save this file. This is because the HTML generated by Dreamweaver is cleaner when it is working with saved documents as opposed to unsaved documents. Choose index.html as the filename because this is the default name of the home page of your site, that is, this page will load automatically when a visitor types your URL in the address field of the Web browser. Save this file in your local root folder. Do not put it in any of the subfolders, because this is your home page and it should be at the top of the structure.



Choose the type of document

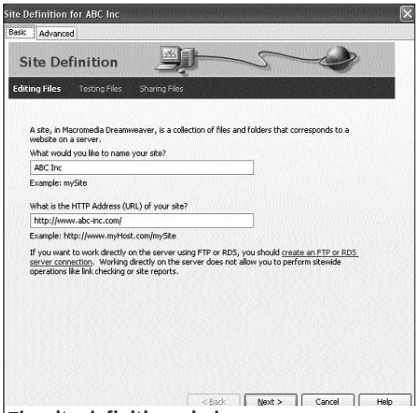

A new Web page document in Dreamweaver

### 5.4.2 Defining the site

You need to create a site where you can store all the files you would like to be on your Web site. To do this, click on Site menu and then on New. A site definition Wizard will open where you can enter the details such as the name of your Web site and its HTTP address or URL. Click Next.

In the dialog box that comes up, you're asked whether you wish to work with a server technology such as ColdFusion, ASP.NET, PHP, etc. You can choose No and click Next. You will now be asked where you wish to save and edit all the files. Choose a local path for this and click Next.

In the next dialog box, you are asked how you connect to the server. Since you may not have Web space registered for this purpose, you can choose None and click Next. Now click Done, and your site is locally created. You can always change these parameters later.



The site definition window

### 5.4.3 Different views in Dreamweaver

You can view a document in three different ways in Dreamweaver.

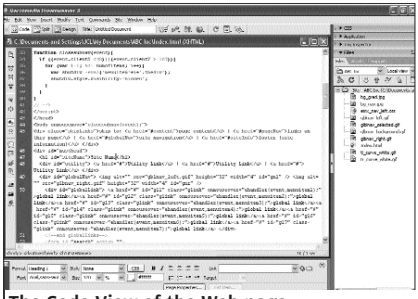
**Design view**

In this view, Dreamweaver displays your Web page in a manner similar to the way that the page appears in a Web browser. You can use Design view to construct your page visually, but you should not rely on it for a completely accurate representation of your page. It's more like a reliable estimate. The best way to see how your page actually looks is to actually test it in your preview browsers.

The Design View of the Web page

**Code view**

In Code view, Dreamweaver displays the


The Code View of the Web page

underlying code (e.g., HTML, CSS, JavaScript) of your Web page. Code view works like a text editor. You can directly edit and modify the code.

**Split view (Code and Design view):**
In this view, the document window is divided into two frames. The top frame shows the underlying code of the page, and the bottom frame gives the visual representation. This is great if you are learning HTML. You can draw the layout of your page and add content in the visual frame and then click in the code frame to see what's happening behind the scenes. Alternatively, you can type HTML directly into the code frame and then click in the visual frame to see the results.

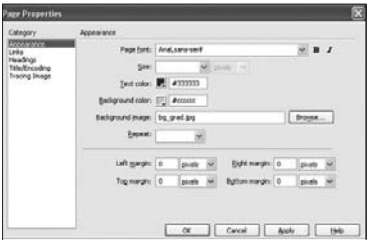
The Split View of the Web page

You can switch between these views by pressing Control + [`].

### 5.4.4 Setting up Page Properties

Next, you need to set up a few basic properties of the page. Go to the main menu and choose Modify Page Properties. The Page Properties dialog box will appear. Most of the categories on the left side of the Page Properties dialog box don't apply just yet. For now, you can set the most basic appearance attributes of the page, so let's start with the margins.

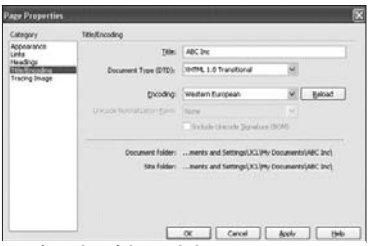
When a Web browser displays a Web page, it automatically adds a small amount of padding between the page content and the browser window. This can lead to undesirable and unexpected results when viewed in different



Set up the Page Properties

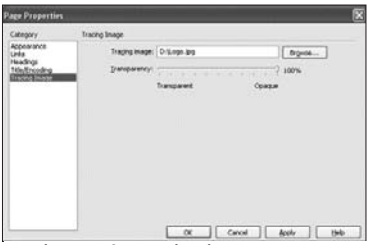
browsers, because different browsers add different amounts of this whitespace. It is therefore good to remove the browser's default page margin entirely so that the page fits snugly in the browser window.

To remove the browser's default page margins, click on Modify menu and on Page Properties. Now click the Appearance category on the left side of the Page Properties dialog box. Navigate to the margin section and set the Left Margin field to "0", and choose "pixels" as your unit of measurement. Do the same for the other three margins as well.



Setting the title and document type

The title of a Web page appears in the title bar along the top of the browser window. It does not appear anywhere on the page itself. You don't add this information so much for the sake of your design as you do for the sake of good coding practice. Type the name of your Web site in the Title field. Use the same name you provided in the Site Definition dialog box. As you create new pages for your site, you can customise this title to reflect the content of the page.



Setting up the tracing image

Finally, you can attach a tracing image to the background of the document window. Tracing Image specifies an image to use as a guide for copying a design. This image is for reference only, and does not appear when the document is displayed in a browser. You can set the opacity of this image. After you have set all the properties, click OK to exit.

### 5.4.5 Preview your page in a browser

When you are done creating your page, you need to preview it in a Web browser. This is necessary to check if the page appears the same in all the browsers (which is not always the case).

To view the page you created, press [F12], and Dreamweaver will launch the page in your primary browser. To launch it in your secondary browser (if installed), you need to press [Ctrl] + [F12]. If you have more browsers installed and wish to preview the page in those browsers, you need to click on the "Preview/Debug In Browser" icon along the top of the document window, and select the appropriate browser from the drop-down list. If your browser is not in this list, you can add it by clicking on "Edit Browser List" at the bottom of the drop-down list. Check things such as whether the title appears in the title bar, whether the images and text are where they are supposed to appear, and whether the tracing image is visible (it should not be).

# Microsoft FrontPage

When it comes to Web design, there's one program that's very popular and easy to use—Microsoft FrontPage. This tool is part of most MS Office installations, and as a result, is one of the most used software for Web design. It's simple, makes for a decent design tool, has loads of templates—and gets the job done in no time!

## 7.1 Getting Started

If you are used to working with any Microsoft Office application, you will feel right at home with FrontPage. Throughout this chapter we will use FrontPage 2003, but you should have no problems following the workshops no matter what version of FrontPage you have.

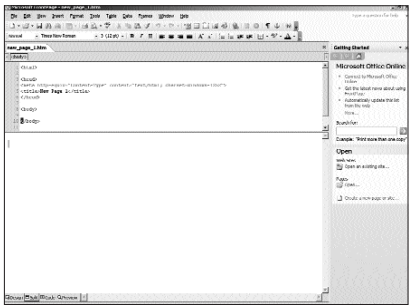
To check if you have FrontPage already installed on your computer, go to Start > Programs > Microsoft Office and look for "Microsoft Office FrontPage 2003." If you don't see it there you will have to buy a version of office that comes with FrontPage, or just buy FrontPage 2003 all by itself from www.microsoft.com /office/frontpage/howtobuy/default.mspx. This will cost you $199 (Rs 9,000), so it isn't cheap—but it might just be worth it if you plan to do a lot of design for your site.

Of course, you can always opt for a freeware tool similar to FrontPage in functionality. We will tell you about some free tools later, but everything you read in the workshops that follow will be quite similar in the free HTML editors.

*Note: If you have some prior experience in creating basic Web pages using FrontPage or any other HTML editor, please skip directly to section 7.4. Sections 7.2 and 7.3 are only for absolute beginners.*

## 7.2 The Look

Start up FrontPage and take a look at the layout of all the tools and menus. Like we said before, if you've used any other MS Office applications, you will find FrontPage really easy to use.



FrontPage looks similar to most other MS Office applications, so you should feel right at home

FrontPage will start with a blank page by default, and if all you're going to do is build a single page for yourself, you can start right away. However, the power of FrontPage lies in the number of templates and presets it offers you, so you don't have to learn everything from scratch.

Let's first look at the layout of the software. Starting on the top left, you will see the standard toolbar that all of us Windows users have become accustomed to. The familiar File, Edit, View and other menus are there, along with the regular text formatting tools from MS Word.

The FrontPage tool and menus

Next, you will notice that the page below is broken into two panes—the top one will have code in it and the bottom will be blank. This is the Split view that has made FrontPage so popular, and is now a standard way of creating HTML Web pages in most Web design software. The bottom pane lets you design and format your Web site in a WYSIWYG environment. Don't worry, that large acronym doesn't mean anything absurdly technical—it just stands for "what you see is what you get."

Switch views by clicking on the appropriate tab on the bottom left

Most people use the Split view so as to be able to change code as and when they want to and do the rest of the design in the bottom WYSIWYG pane, or as FrontPage calls it, the Design

## Irritations

FrontPage can make you tear your hair out at times, especially when it adds complete paths

FrontPage has a few niggles, the most irritating of which is its tendency to add complete paths to every element in your page. For example, when you add pictures to your page, they get added with a local path rather than a relative path.

This means that when you add a picture, it gets added with a source tag (src=) of something like src="file:///C:/Documents %20and%20Settings /Administrator/My%20Documents/pic.jpg" rather than src="/pic.jpg". The difference between these two paths is this: the first means that your HTML site will only display images if viewed on your own computer, while the second will work on any computer. If you upload this site or page to a Web server with the paths that FrontPage provides, the page will point the browser of any visitor to a picture called "pic.jpg" that is located in the folder "C:\Documents and Settings\Administrator\My Documents\" on the visitor's computer. Now when you check your site, you will find that everything is in order, but when your site is accessed from any computer but yours, all anyone sees is a little symbol for a missing image (generally a little white box with a red cross). If you provide a relative path such as src="pic.jpg", and upload both "pic.jpg" and the HTML file you created to the same folder on the Web server, everyone sees your site the way you designed it.

pane. If you know nothing of HTML, and aren't really too interested in learning it, you can switch to the Design view by clicking on the Design tab at the bottom left of your screen. However, we suggest you always use the Split view, for two reasons: first, if you make your pages in the Design pane, you can see the HTML code that relates to it in the Code pane, and thus learn basic HTML without having to cough up thousands of Rupees for course fees! Secondly, like any other software, FrontPage can be quite stubborn at times, and you might need to dabble with code on and off to fix some niggling problems. See the box *Irritations* for more information.

## 7.3 Your First Web Page

Change the Title tag of your page

Let's start off by creating a single, simple HTML page. Since you already see a blank page when you open FrontPage, you can start typing in the Design pane, and then format your page the way you want it. However, before you start typing content, take a look at the Code pane and look for the <title> and </title> tags. You should find something like "New Page 1" in between these tags. This is the title of your page, or the text that will appear at the top of your browser when you open this page. Change this to something descriptive of the page you are making, or name it after your site.

### 7.3.1 The content

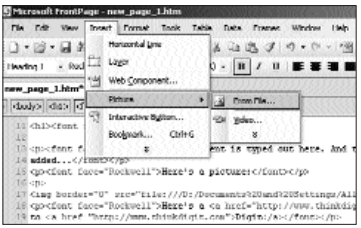
You can now begin typing in your content and start to format it. You need to make sure your page has a headline, some content, a picture or two, and some links. The most basic page is a personal page that you can create by just typing out your name, your interests, add a picture of yourself, and then make a link for people to e-mail you—or just add links to your favourite sites.

When you type in your headline, just go to the Formatting toolbar and change the Normal style to Heading 1. This will format the selected text into a headline, making it larger in point size, and bold as well. If you want to change the colour of the text displayed, just click on the Font Color icon and choose the colour you want.

Thumb Font Color

### 7.3.2 Inserting images

The next step is to insert a couple of images. Before you go any further, save the HTML file with any name you like, and in a folder that you can easily access—such as a folder on the Desktop called "Site". Now, you have to decide how you want sort your images. It's easy to just plonk everything into one folder and then forget about local and relative paths, but it's a nightmare to manage as and when you add pages and images to your site. The easiest and most widely used convention is to place images in a folder called, umm, "images"! It's not very creative, but extremely practical.


Inserting a picture into your page

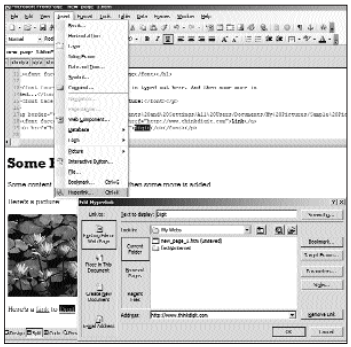
If you choose to save all pictures on your Web server in a folder called "images", do the same when designing it locally, and create a folder called "images" in the same folder as your HTML file. Here, paste all the images you think you will be using for this fist page of yours.

Now, to insert an image, just go to Insert > Picture > From File..., choose the picture you want to insert, and click OK. The picture will appear on your page in its original size. If it's too large, just click on the picture, hold down [Ctrl] + [Alt] + [Shift] and drag a corner of the picture to make it a more desirable size.

### 7.3.3 Adding links

The next thing you may want to do is add a few links to your Web page, because you want people to be able to click on something other than the back or close button to navigate away from your page! It's always a good idea to add your favourite links to your site. There are two ways to add links in sites: either you just type out the link, such as http://www.thinkdigit.com, which FrontPage (like any other MS Office program) automatically converts to a link, or you use the hyperlink option—also called the <a> tag in HTML code.

Since it looks a lot better to have a link called *ThinkDigit* rather than http://www. think digit.com/, in the text of your page, we'll always use FrontPage's Hyperlink feature to add links. In the example page that we're showing you screenshots of, we typed out "Here's a uuLinkuu to uuDigituu". As you can see, the words "Link" and "Digit" are underlined. When you add links, you will notice that they turn blue, so as to distinguish between regular text and links.

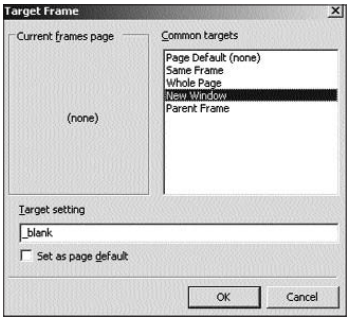


**Insert hyperlinks into your pages to point to different Web sites, another page in your own site or even your e-mail address**

All you have to do is select the word(s) you want to change into a link and then go to Insert > Hyperlink..., or simply press [Ctrl] + [K]. This will bring up the "Edit Hyperlink" box, where you just type in the Web address and click OK.

As you will see in the Edit Hyperlink dialog box, you have several options available to you. On the left you will see:

❍ **Existing File or Web Page:** With this option you can just type in the URL of a site, or a link to a page, file or image that will be located on your Web server itself. For URLs, you will need to add the complete address, including the "http://", while for pages or files that will be located on your Web server, you can add a relative path such as "/images/pic.jpg" (if you want your hyperlink to point to a file called "pic.jpg" located in a folder called "images" relative to the page you are editing.

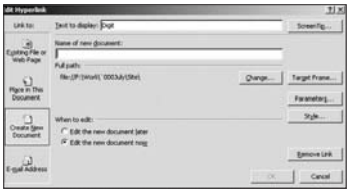


Use the Target Frame button to choose how a browser opens your hyperlink

Another cool function is accessible from the Target Frame... button on the right of the Edit Hyperlink dialog box. Click this and then select "New Window" if you want your visitors to be taken to the link without browsing away from your site.

❍ **Place in This Document:** This is where you can link to bookmarks, which we will explain later in this chapter.

❍ **Create New Document:** Create New Document: You can choose to create a new document you want to link to, but haven't made yet. Let's say you want to create a link to a "Pictures" page, but haven't started designing it yet. Using the Create New Document option from the Edit Hyperlink dialog box will allow you to fix the name for your picture page right now, and create a blank page called, say, "pictures.html", and save it in the desired location. The advantage is that later, all you have to do is edit the pages you want to link to, rather than creating them later and having to remeber what you linked to them as. If you create a page later and call it "picture.html", but linked to it from your home page (generally index.html) as "pictures.html", you're going


Make sure you use the Create New Document option to link to pages that you haven't created yet

to have a lot of people clicking on a dead link and getting "Error 404: Page not found" instead of your Pictures page.

- **E-mail Address:** This option allows you to make a link that, when clicked, will open the visitor's e-mail editor and insert your e-mail address into the "To:" field. It's like a shortcut to e-mailing you, and you can even choose the default subject for the mail!

You can also make your pictures link to URLs instead of just sitting there on your page. Doing this is identical to how you link text, except that you have to click on the picture and then press [Ctrl] + [K] to get to the Edit Hyperlink dialog.

Once you're done making all your hyperlinks, adding all your pictures and formatting your text, remember to save the page before closing FrontPage. Congratulations, you've just made your first basic Web page!

Read on to find out how to do a little more with FrontPage, but remember the basics we've talked about in this section because we will expect you to know how to do everything mentioned here!

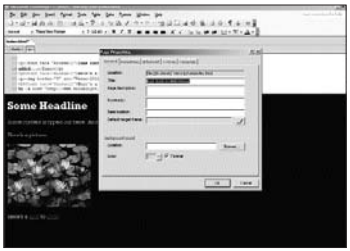
## 7.4 Prettying Up Pages

In the previous two sections, we learnt the absolute basics of Web page design using FrontPage. Now we get to the interesting bit—using FrontPage to design a Web page that is more than just a white background with basic links, pictures and text. Here's where you get to show off your individuality.

### 7.4.1 Changing colours

Let's start with customising the colours of your page and the text and links in it.

Many people prefer light text on dark backgrounds, rather than the standard black text on white backgrounds. Also, you might want to add purple text on an ugly yellow background—just



Access the Page Settings to change the default background and text colours to whatever you want

because you want it that way! Well, here's how you go about changing the background colour of your page: right-click on a blank part of your page in the Design pane and select Page Properties..., and you should see the Page Properties dialog box pop up. Now, click on the Formatting tab, and under Colors, you will see five drop-down boxes: Background, Text, Hyperlink, Visited hyperlink and Active Hyperlink. Just select the colour you want to set for each of these options and click OK. (A visited hyperlink is a link that a visitor has already clicked on and then returned to your page. An active hyperlink is a link to the very page that a visitor is at, such as in a Links box, where a link to every page in your site is displayed—including the current page!)

It's usually a good idea to leave all the hyperlink colours at their default, and not setting either your text or background colours to what these are set to by default—why mess with Web conventions, right?

**7.4.2 Picture backgrounds**

Of course, you don't have to use a plain background to adorn your site, and you can use a picture instead! Go back to the Page Properties dialog box, and under Formatting check the "Background Picture" and the "Make it a watermark" boxes. Now click on Browse, select the picture you want to use, and click OK. You should now see the path and name of the picture. Next to the Browse button that you clicked earlier, you will see a Properties button; click it and then click the "Picture File Type..." button you see in the next box. Here you'll have options to change the image to a GIF, JPG or PNG file, and the quality settings to use. Uncheck the "Use image as is" box, and then set Quality to 50 and Progressive passes to 2 if the image is larger than 20 KB. Progressive passes indicates how a browser will display your

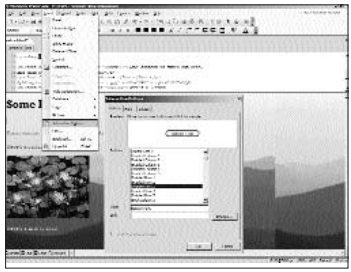
image, so if a visitor with low bandwidth visits your site, he or she will be shown a very low quality rendition of the background image immediately, and then the image will clear up as it is completely downloaded.

In the same Picture File Type dialog, you will see the difference in file size of the image as you reduce the quality setting. Generally, a quality of 60 per cent for JPEG images is quite acceptable, and can reduce file size by as much as 10 times! Thereafter, between 60 and 1 per cent, you will hardly find a difference in file sizes, but will see a dramatic loss in quality of the image. We recommend always using 60 per cent or more as the Quality setting.

Now click OK thrice to get back to your page. You will see the background has become the picture you selected. Sure beats white or black, doesn't it?

### 7.4.3 Buttons

Instead of boring old links, especially when you link to other fixed pages of your site, you can add buttons. Though these are nothing but graphic links, they're a lot prettier than plain text. They are generally small as file size goes, and if you use the same buttons throughout your site, a few KB more is all that your site's file size will be.



Insert buttons into your page to give it a better look

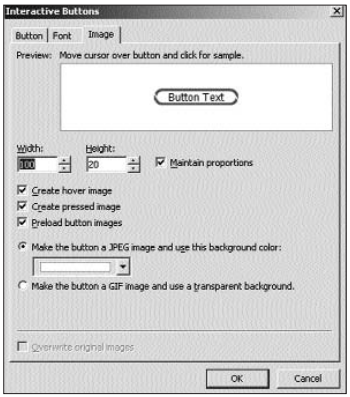
FrontPage has a lot of preset buttons for you to choose from, and with all the colour combinations possible. In order to add a button, you need to be set with two things: the name of the button and the page to which it links. Let's take the example of our "pictures" page we mentioned earlier, and create a button for it on our test page. Choose the place in your page where you want to insert the button

and click on Insert > Interactive Button. You will see the Interactive Buttons dialog as well as three tabs: Button, Font and Image.

You will see a long list of button styles, and an interactive preview where you can see how the button behaves when you hover your mouse over it and how it looks when you click it. You add the button text into the Text field, and the link into the Link field.

You can click on the Font tab and edit the way the text in the button behaves. You can select different colours of text for mouse actions (hover or click) and change the font and size of the text.

Next, click on the Image tab to select the size of the image and how it behaves. If you are using a picture background, make sure to select the "Make the button a GIF and use a transparent background" radio button. If you're using a fixed colour background, you can choose to set that same colour as the button's background, but it's always a good idea to use GIFs with transparent backgrounds, in case you decide to change the background colour of the page later.

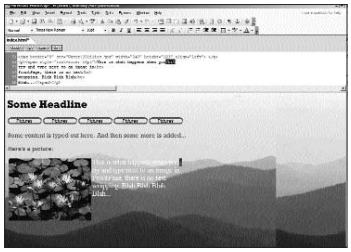


Set the Image properties for your button

In case you want to add more buttons, and you've considerably personalised the first one, it's easier to copy and paste the one you've made and then just edit the text and link fields instead of personalising them all one by one. This way, your page or site will have all the same button characteristics, and it will be neat—with only the text and links for each changing.

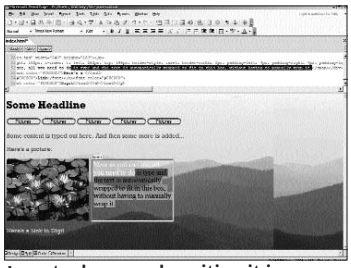
### 7.4.4 Layers

Often, you will see sites that have blocks of content, with pictures and images running side by side. By default, in FrontPage, even if you select the picture and set a wrapping style, you will not get any control of the way the text flows, and you will have to use [Enter] or [Shift] + [Enter] to manually wrap the text, as you can see in the image alongside.



You cannot just place text near an image

In order to arrange the text better and utilise all the blank space that's next to an image, you can use layers. In order to add a layer, go to Insert > Layer, and you will see a box called something like "Layer 1" appear. Click on the layer name to select it and then drag and place it where you want it. You can resize it to fit your page and then type the same text you wanted into that layer. As you will see from the image, the text looks wrapped and much neater now.



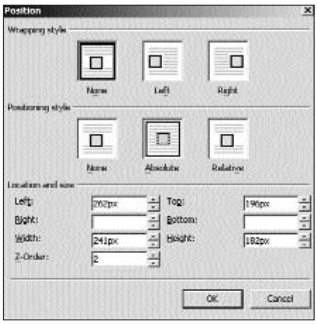
Insert a layer and position it in your page

This layer you just added will have no border, and will just look like text placed alongside the picture. However, if you want to clearly demarcate a layer and make it look like a box, you can do so from Layer Properties. Just right-click on the layer and select Layer Properties. A pane on the right called Layers will open. This will show you all the layers in your page, and you can edit each one's properties by selecting it and then clicking on Borders and Shading..., Positioning, or Behaviors, which are links at the bottom right.

If you click on Borders and Shading... you will see many options, most of which are self-explanatory. There is also a preview so you can easily figure out what each setting does. We chose to make our layer an Inset; you can choose whatever suits your taste.

Next, you can click on the Shading tab and choose whether to just leave the layer background blank (default) or whether you want to change the background colour, or even add a background picture to it.

If you want to use text wrapping, you will need to click on the Positioning link at the bottom right and then select which style of wrapping you need. By default, it is set to no wrapping, so set this to how you want this layer to wrap around the page content.

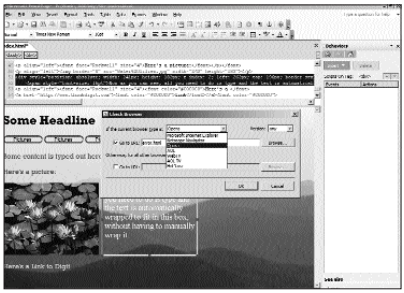


Use Positioning to select the wrapping style for your layer

Under Behaviors, you can set various advanced script options, such as JavaScript code behaviours, handlers such as mouse-over and mouse click, setting specific browser behaviours and more. Once you're comfortable using FrontPage, you can come back here and use some of these features.

One thing you might have noticed is that when you visit a few pages on the Net using browsers other than Microsoft's Internet Explorer (IE), you are redirected to a page that says your browser isn't supported. Though we all hate these warnings, the fact is that sites created in FrontPage are best viewed in IE. So when testing your site, if you find that certain things do not work with other browsers, you can set a layer to check for which browser is being used and then forward it to a page that tells the visitor that his or her browser is not supported. It's a very basic implementation, but it works. Just go to

Behaviors, click on Insert, and select Check Browser. You will see the Check Browser dialog as shown in the screenshot. Here, select the actions you want, such as redirecting to an error page (which you should remember to create) when a certain browser is detected. Remember, this is very irritating, so unless you really have compatibility problems with some browsers, you shouldn't use this feature.



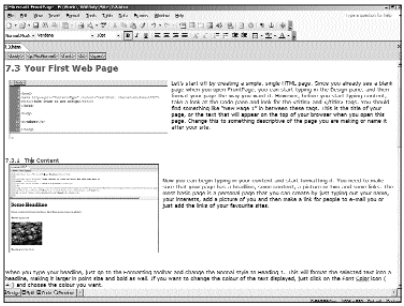
You can force visitors to your site to use a specific browser

### 7.4.5 Bookmarks

Some of us like to rant and rave—especially on our Web sites! This can lead to some very long pages indeed, and just navigating a single page might require a lot of scrolling. This is very user-unfriendly, and you need always make sure your pages are a breeze to navigate—or else you're not going to be getting many visitors.

This is where bookmarks come in. Just as you would mark a book with little tags, denoting where particular passages are, you can mark your site with bookmarks so that visitors can directly go to the content they want by clicking instead of simultaneously scrolling and scanning the text.

For pages with a lot of content, it's a good idea to add bookmarks to every section you've made, and add links to those bookmarks as high up on the page as possible—preferably so that the links are visible without a visitor having to scroll at all!



Here's what §7.3 in this chapter looks like as a Web page

Let's use the text in §7.3 as an example. We just created a new file and pasted §7.3 into the page. Pages online can contain 10 times or more content than what we will show you, and obviously, are an even bigger pain to navigate.

We laid out §7.3 in a Web page, and placed images with wrapping, and found that it was quite a scroll to get to the bottom, especially if you're at a resolution of 800 x 600. So we added bookmarks to every sub-section and added links to each sub-section at the top of the page. Here's how you can do the same thing.

First, select the first point you want to bookmark—which in our case was at "7.3.1 The Content". Now go to Insert > Bookmark ([Ctrl] + [G]), and give the bookmark a name. Ours was a simple "731".

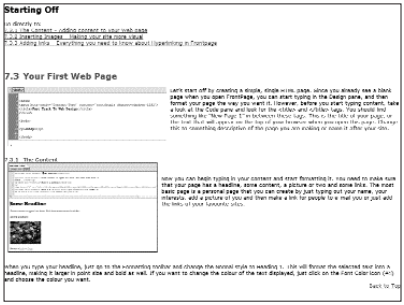
Now, repeat the same procedure for all the points in your page you want to bookmark, and you now have the tags ready. The next step is to use these tags by making links—preferably at the beginning of the page, in plain view of a visitor—and then hyperlinking them to the corresponding bookmark.

As you can see in the image, we had three links placed at the top of the page for the three bookmarks. Now, click on the Preview tab at the bottom left and check to see how the links work.

Now you've sorted out how to get visitors to quickly click on the content they want to read about, but what happens when they're done reading and want to see the rest of the content you listed at the top of your page? This is where the "Back to Top" link—which you've probably seen many times online—comes in.

Just click on the first line of your page, press [Ctrl] + [G], and call the bookmark "Top". Now, add the text "Back To Top" at the end of the content associated with each bookmark you added before. This will help visitors get back to the list with ease after they're done going through the content under the bookmark they clicked.

That takes care of all the basic things you need to know in FrontPage. Of course there are hundreds of more options and features available, but those are things best learnt by trying them yourself!




The bookmarked and linked final page is a lot easier to navigate

## 7.5 Templates

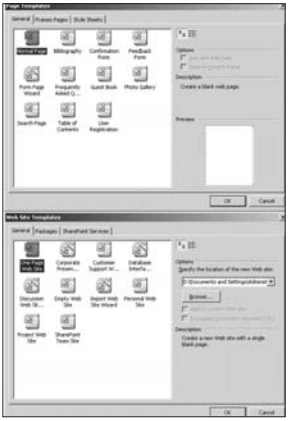
So far we've shown you enough to get you started with designing pages individually. Now we'll get into some workshops to better understand how you can use the power of FrontPage's templates and preconfigured settings to create a powerful HTML-based site.

### 7.5.1 Web site templates

If you want to build a Web site, and not just random pages all linked together, you can do it a lot faster if you use FrontPage's Web site Templates option. If you go to File > New, you will always get a blank page to begin with. However, below the File menu, there's an icon that looks like a blank page which has an arrow next to it. Click on this arrow and you will see the Page, Web Site, Blank Page and Text File options. If you select Page, you will get a Page Templates Wizard that will help you choose from FrontPage's

Select Web Site to start building a new site from a template

presets. If you select Web Site, you will get a similar wizard for a preconfigured collection of pages (a Web site).



You can use either the Page or Web Site Templates to help you quickly set up a preconfigured site

If you're looking to set up a site for your company, FrontPage will make the job a lot easier, because it's built mainly to handle online design for small businesses, and the inbuilt templates will prove it. Choose from amongst the many templates, such as Corporate Presence Wizard, Customer Support Web Site, Project Web Site and more, or click on the Packages tab to select between a News and Reviews Site or a Web Log (blog). We chose "Personal Web Site."

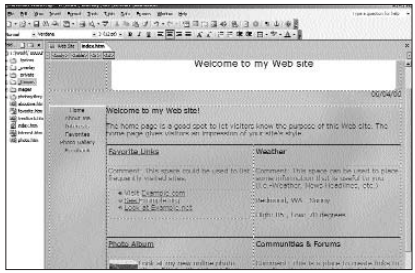
Now, if you want to save your site to a particular folder, click on the Browse button on the right and tell FrontPage where you want it saved. By default, all pages and Web sites are saved in the My Webs folder under My Documents.

When you click OK, FrontPage automatically adds the most commonly-used pages for the template you selected. In our case, we got pages such as About Me, Favorites, Feedback, Interests, and a Photo Gallery. Obviously, when you choose a business site, the pages made available are different. For example, if you choose the Corporate Presence Web option, a Corporate Presence Web Wizard will pop up and guide you through setting up your site by asking you for a few details. See the large screenshot above to understand how detailed the setup Wizard is.

Now, back to the Personal Web Site template we chose: you need to start from the index.htm page, which will be your home page. Here you will see predefined blocks with text in them. This

As you can see, the Corporate Presence Wizard is very thorough

is nothing but directives that FrontPage gives you to tell you what content you can or should put in a certain block. Here you will see a link bar on the left, and blocks that describe the other pages in your site. After this, editing each page is the




The Personal Web Site template that FrontPage automatically builds for you

same as we've shown you earlier in this chapter. The advantage with using the templates is that all your cross-linking (linking from one page in a site to another) is already done for you. All you need to do is edit, not create!

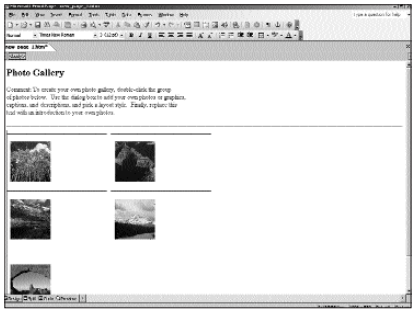
### 7.5.2 The photo album

The most common thing on most personal sites on the Web is a photo album. With digital cameras proliferating and almost every phone being capable of images of decent resolution, there's been an explosion of personal pictures on the Web. However, you will find that many people do not display their pictures properly, and some even just put them all into a folder on their server, leaving people (friends, family or even strangers) no choice but to click the image name to see what it contains.

To begin with, leaving the names of the pictures as what the digital camera names them is a crime—OK, so it isn't one, but it ought to be! How can you expect people to sift through names like "DSC000102.jpg"? Besides, it's not very search engine-friendly, and God knows, we all want to be noticed by Google these days! So the first thing you need to do is come up with a naming convention for all your pictures. This could be absolutely anything you feel comfortable with, because you are the one who has to sort them out. An example is "060525_Digit_Products_Games_Half_Life2_04". Here you can see that there are multiple tags taken care of: there's the date tag right in the beginning, so every image is automatically sorted in ascending order of date. Then there's the word "Digit", which indicates that this image was used in *Digit*. We also know that this is a "Product" image of a "Game" called "Half Life 2", and that this is the fourth such image. All that information available to you (and let's not forget Google) without even looking at the actual image!

You can come up with your own naming convention for all your images and sort them all out nice and neat. You have to continue to do that on your Web site, and this is easiest done by creating albums. Once you've sorted all your images into

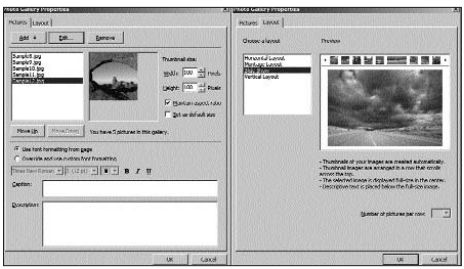
albums, you can begin working on the HTML page(s) for your online photo album. Click on the arrow next to the blank page icon under the File menu and select Page. You will see the Page Templates dialog, from where you should select the Photo Gallery option. A new page will open up with some preset images.



The Photo Gallery page

If you double-click the default images that are displayed, you will see the Photo Gallery Properties dialog box. From here you can add all your images and then select how the gallery is displayed. In the Pictures tab, you can add or remove all the pictures you want, and also set a default size for the thumbnails. Yes, FrontPage generates thumbnails for all the images you add into your photo gallery, and adds "thumb_" before the name of each image to easily identify. In the Pictures tab, you can set a caption and description for each image—the caption is added as the tool tip (the text that is displayed when you hover your mouse over the image) and also below or alongside the image. The description is then added below that. Make sure to always have captions for your images, even if you're too lazy to type out entire descriptions—you can save that for the description of the entire photo album.

Clicking on the Layout tab will let you control how the gallery is displayed. You will see four options: Horizontal, Vertical, Montage and Slide Show. The most popular is


The Photo Gallery Properties dialog box will let you control how the gallery looks

Slide Show, and we're not about to argue with the world, so we used it ourselves.

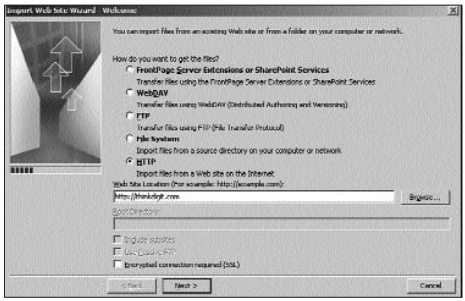
You need to remember that each one of these pages is one of your albums, so if you have 10 albums, you will have to create 10 such pages and then create a Photo Gallery home page where you can link to the other 10 pages and show a few images from each album.

Overall, FrontPage's Photo Gallery is no match for some of the free and open source image galleries available on sites such as sourceforge.net, but it's good for people who don't want to get their hands dirty with PHP code and MySQL databases and the like. Plus, the advantage of HTML is its simplicity—just upload all the files and your Web site works; no database servers to worry about—and thanks to FrontPage, no coding either!

### 7.5.3 Just copy

Some might laugh and say that this is the Indian way, but jokes apart, if you come across an HTML-based site on the Web that you like, and want to base your site on that design, you can just download the site using FrontPage. Of course, you need to remember that you don't want to indulge in plagiarism, so you should mention somewhere in your site that your design was inspired by the site you downloaded!

FrontPage has an Import function that will let you copy an entire site—or part of it—to your computer, and let you start editing and personalising it. Just go to File > Import, and the Import Web Site Wizard will pop up. You will see many options for how to import a site, the most important of which are FTP and HTTP. To import a site from FTP, you will have to have its FTP username and password (which means you probably own the site), but with HTTP, you can just copy a site and all the images and files it contains that are publicly visible.




**Use FrontPage's Import option to copy a site to your hard drive**

Select the HTTP radio button and enter the URL of the site you're "inspired" by. Now click Next, and FrontPage will check to see if the site is online. Once it finds the site, it will give you a few options, such as how many levels to download, and whether to download only images and Web pages or all files available. Select the desired settings, and sit back and wait till FrontPage downloads it all. Remember, if you do not limit the levels (how many links away from the home page) that FrontPage should download, you might end up waiting for a very long time indeed! Ideally, don't set anything more than 20 levels, or you will start greying while you wait for the download to end.

Once the download is complete, FrontPage will open the site just like any other Web Site you created on your computer. Now you can start editing the site and personalising it. Remember, give credit to your inspiration!

# Content Management Systems

Say you have a Web site and want to expand your business. Wouldn't you want prospective clients to preview your products on your site? You will probably spend days working on the site design. Wouldn't this time be better spent in ironing out bugs and adding even more features to your software? Now say you can't afford to hire a Web designing company... there is a solution: the Content Management System, or CMS.

# 8.1 Why Do I Need A CMS?

### 8.1.1 What is a CMS?

What exactly is a CMS? From Wikipedia, "a content management system is sometimes a Web application used for managing Web sites and Web content, though in many cases, content management systems require special client software for editing and constructing articles."

Simply put, a CMS is an application that makes developing Web sites that much easier. All you will *ever* need to do is upload and install the CMS on your server! Not only is it cheaper, it also saves you time—time that can be spent giving the killer edge to your software. It is this time that will hold the key to the success of your business. Wouldn't you want to utilise it in the best possible manner?

Here, we will look at the Web Content Management Systems that will help make developing your site a more pleasant affair!

### 8.1.2 Advantages of PHP-Based CMSes

There are various types of Web Content Management Systems, but the two main types include PHP-based and ASP-based CMSes. PHP-based CMSes are more popular than the rest. The advantages that PHP-based CMSes enjoy over others are:

- These Content Management Systems are based on PHP, which is a *relatively* easy programming language to learn.
- PHP is cross platform, so you need not worry about the OS or hardware you're running. In most cases, it will be supported.
- PHP, like other open source Software, has a community of developers willing to resolve your queries.
- Most of these CMSes are free.
- PHP-Based CMSes are easy to modify and do not require extensive support, which is ideal for small businesses and independent developers.
- Most hosting companies support PHP, so choosing a host won"t be a problem either.
- Generally, these CMSes are more secure than the others, though security largely depends upon the user.

## 8.2 A Web Server On Your Home Computer!

Before looking at the content management systems, let us look at some software packages that help us to run these scripts on our computers. Suppose you own a small business and have developed a Web site for it using a CMS. Before uploading it to your server and launching it, wouldn't you want to test your Web site? As in software development, bugs tend to crop up no matter how hard you try ironing them out. So, wouldn't you want to test your Web site thoroughly before uploading it? Besides, uploading files again and again is time consuming.

There are various applications available to help you install and run the required software necessary for running a Web server right on your computer. All this without *any* prior knowledge required! So, if you own a business and don't quite understand what Apache, MySQL or PHP mean, don't worry. Software packages such as EasyPHP and XAMPP are specifically developed for this very purpose.

### 8.2.1 EasyPHP

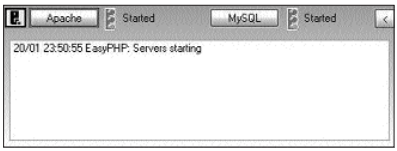
EasyPHP, like XAMPP, is a software package that installs Apache, MySQL and PHP on your computer, so that you can test and run all your PHP-based Web sites without uploading it to a Web server. Apache is an extremely successful open source Web server. MySQL is an open source database system that's been adopted at large by the Web hosting community.

#### 8.2.1.1 Installation

Installing EasyPHP is *relatively* simple. All you need to do is download the software from their site (www.easyphp.org) and install it. After installing EasyPHP, launch EasyPHP from Start > Program Files > EasyPHP

The program will launch and will automatically start Apache as well as MySQL. Open your favourite browser and go to http://localhost or http://127.0.0.1, and if all is well, you will get a

EasyPHP welcome page! This means that both Apache and MySQL are working fine, and you"re all set to test your sites now.



The EasyPHP interface is simple and uncomplicated

Before moving on, let us tweak our installation of EasyPHP a bit. We will be editing the PHP Configuration file. Go to C:\Program Files\ EasyPHPx-x\php\ and edit the php.ini file. In php.ini, change the value of the "display_errors" field to off. If error displaying isn't turned off, it might create problems with some CMSes.

**8.2.1.2 Usage**

EasyPHP is a very powerful but at the same time a very easy-to-use software package. You can modify, administer, and run the server on your computer without any prior experience!

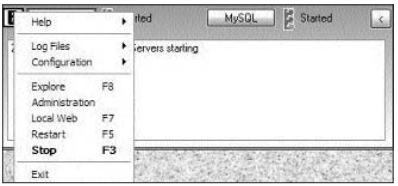
All is well if you see this!

Let us look at the different options available in EasyPHP. On clicking the little "e" icon next to the Apache button, you will get a drop-down menu with options for configuring as well as administering your server.

The Help menu is intended for those new to EasyPHP, and contains basic information and a set of Frequently Asked Questions (FAQs).

The Configuration menu enables you to modify files relating to the Apache, MySQL, PHP and PhpMyAdmin installations for further fine-tuning your server. You can also check out the plugins and configuration files of PHP, MySQL, Apache and PhpMyAdmin by clicking on Administration.

To run and test your site using EasyPHP, you need to place the files in the "www" directory in C:\Program Files\EasyPHPx-x\



The drop-down menu offers many options

For example, let's assume you've developed a site using a CMS and have placed the files relating to the site in the directory "xyz". To install and run the CMS on EasyPHP, you will have to place the "xyz" directory in the "www" directory as mentioned above. Now, you can install and access your site at http://localhost/xyz/

We will talk about the features as well as the installation part of different CMSes in the next section.

## 8.3 PHP-Nuke

### 8.3.1 Introduction

PHP-Nuke is one of the most popular content management systems around, with a huge user base. PHP-Nuke is free software, and is released under the GNU General Public License or GPL. It was originally based on Thatware, a popular news portal system. The current version is 7.9.

Until Version 7.5, the latest version of PHP-Nuke was available for download on their site. However, since version 7.5, a small fee ($10) is charged for downloading the latest version of PHP-Nuke. However, being free software and licensed under the GPL, you can freely distribute the source code of PHP-Nuke.

According to the developers, the fee paid for downloading PHP-Nuke is used for the further development of the CMS. Besides, for small businesses and independent developers looking for a CMS, the fee is small considering the features offered by PHP-Nuke.

However, earlier versions of PHP-Nuke are available for download free of cost.

Security is an issue relating to which PHP-Nuke has been criticised in the past. But security is a debatable issue, and as mentioned earlier, depends largely upon the user.

### 8.3.2 Features

PHP-Nuke is a modular CMS, which means you can turn on and off its modules whenever you want. PHP-Nuke has all the features you'd require for running and maintaining a Web site.

- For businesses and developers looking for a download manager, PHP-Nuke has a fully-featured Download Management system with advanced options.
- PHP-Nuke has a fully-featured WYSIWYG editor for posting news and articles.
- For developers who would want to provide support on their Web site, PHP-Nuke has an integrated Forum system powered by PhpBB.
- You can also turn on and off different modules and blocks from the Administration menu. In addition to this, you can install add-ons to further enhance your Web site!
- PHP-Nuke also offers Journals (blogs) for registered members to post their own articles. If you want to send a newsletter or bulletin to your customers, PHP-Nuke has an option for this too!

PHP-Nuke is a good CMS, though we'd like the developers to work on the installation part as well as the security.

### 8.3.3 Installation

Installing PHP-Nuke under EasyPHP is quite easy. The installation process, in detail, is as follows:

1. Download the latest version of PHP-Nuke from www.phpnuke.org. Extract the PHP-Nuke archive. You can use WinRar for this purpose.

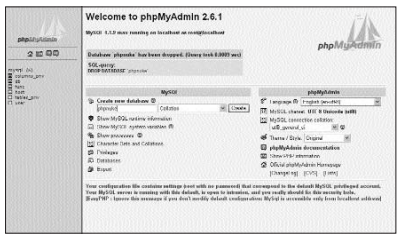
2. After extracting the archive, ensure that the folders "html" and "sql" are present. Copy the nuke.sql file from the "sql" folder to the Desktop. Let's assume that we will be installing PHP-Nuke in a directory called "nuke1".

3. Create a new folder called "nuke1" and copy the contents of the "html" folder into it.

4. Place the "nuke1" folder in the "www" directory in C:\Program Files\EasyPHPx-x\. Ensure that EasyPHP is running.

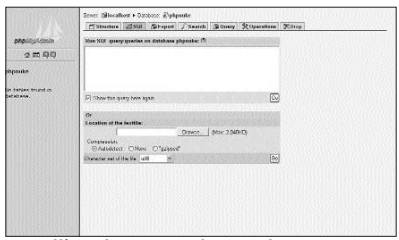
5. Now, point your browser to http://localhost/mysql/. If EasyPHP is running, you will be logged into PhpMyAdmin. The default username for MySQL on EasyPHP is "root", and the password is disabled, that is, it's blank.

6. In the main PhpMyAdmin menu, under "Create new database", enter the database name "phpnuke" and click on "Create". If the database creation is successful, you will be browsing the "phpnuke" database.



Creating the PHP-Nuke Database

7. Under the "phpnuke" database, click on "SQL" on the top bar. Under the sub-heading "Location of the textfile", click on Browse and select the nuke.sql file, which we copied to the Desktop. Now click on "GO".

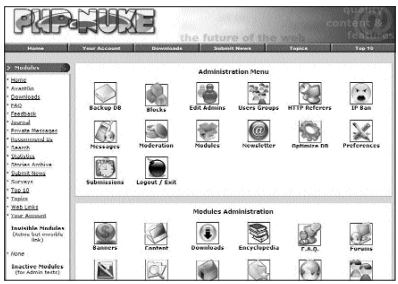

Installing the PHP-Nuke Database

8. We now need to edit the configuration file to enter the details about your server. Go to C:\Program Files\EasyPHPx-

x\www\nuke1\ and edit the config.php file. Once the file is open, the editing is pretty simple. Under $dbuname, enter "root", since it is your MySQL username. Let the $dbpass field remain blank, as we said in point 6. Change the value of the $advanced_editor field to "1".

9. It's done! Assuming you followed all the steps correctly, when you point your browser to http://localhost/nuke1/ you should get your very own PHP-Nuke installation.

10. Next comes another important part. On the home page of your PHP-Nuke installation, you will get a link to create the super user. Click on it, enter your details and register the account. This will be the administration account that will be used to manage your Web site. Now log in to the administration menu and start modifying your dream site!



The PHP-Nuke Administration Menu

### 8.3.4 Resources

Being one of the most popular CMSes, PHP-Nuke has lots of support Web sites, which offer themes, patches, modules and other utilities.

One of the best sites for customising PHP-Nuke is Nukeresources.com. The site offers add-ons, fixes and themes for all versions of PHP-Nuke, right from 4.x. Another Web site that specialises in PHP-Nuke security is Nukecops.com. This is a must-visit for everyone planning to use PHP-Nuke as their CMS.

Nukemods.com offers beautiful themes for PHP-Nuke. They are very popular within the PHP-Nuke community.

BestTests.com is a popular site based on PHP-Nuke. It offers free practice tests for various entrance exams.

MyTechDept.com is another side powered by PHP-Nuke. It offers the latest security patches and information about virus threats.

## 8.4 Mambo

### 8.4.1 Introduction

Another popular CMS, Mambo is very easy to use. It is an open source CMS developed by the Mambo Foundation, which is a non-profit organisation. The current version of Mambo is 4.5.4, which is the final release in the 4.5.x series. The developers are focused on the next version of Mambo—4.6—which is expected to introduce many new features.

The minimum requirements for Mambo are Apache (version 1.3.19 or above), MySQL (version 3.23.x or above), and PHP (4.2.x). It works well with most browsers, including Firefox, Internet Explorer, Safari (Mac) and Opera. Mambo has had its share of controversies, however. In 2005, due to internal disputes, a breakaway faction of Mambo developers formed Joomla, a CMS based on Mambo. After this, the rights to the Mambo CMS code base were transferred to the Mambo Foundation. Mambo is released under the GPL.

UK magazine Linux Format adjudged Mambo as the *Best Free Software Project of The Year* in 2004. Mambo was also named the *Best Open Source Software Solution* at LinuxWorld, San Francisco, in 2005.

### 8.4.2 Features

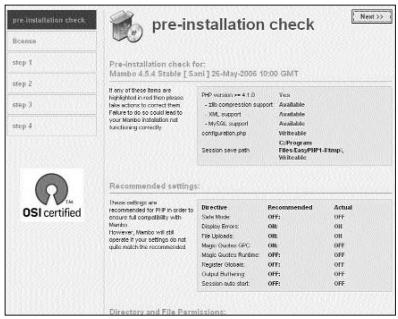
Mambo can be used for everything ranging from personal journals to complex professional Web sites. Some of the unique features of Mambo are:

- Unlike PHP-Nuke, the installation and administration of Mambo is simple. The Admin menu is clean and well-defined.

- Mambo features a page caching mechanism, which improves performance in sites with heavy traffic.
- A fully-featured WYSIWYG editor is built into Mambo with support for scheduling and Flash content.
- Mambo features Search Engine-Friendly URLs, which help your search engine rankings.
- Mambo also features an Advertisement Manager for displaying and managing the ads that will be displayed on your Web site.
- Different bulletin board systems such as vBulletin, PhpBB, and SMF can be integrated with Mambo.
- Mambo has a large developer and user community ready to help people with Mambo-related queries and problems.

### 8.4.3 Installation

1. Download the latest version of Mambo from www.mamboserver.com. We recommend using WinRar to extract the tar.gz archive on Windows.
2. Copy the extracted contents to a new folder "mambo". Place this folder in the "www" directory in C:\Program Files\EasyPHPx-x\.
3. From here on, the installation is pretty simple. Point your browser to http://localhost/mambo/. Mambo will run a pre-installation check. If EasyPHP is running, the check will be successful, and you can go ahead and install Mambo!



The Mambo pre-installation check

4. After Mambo runs the pre-installation check, click the Next button at the top of the page. You will now have to enter the server details.
5. Here, under "Host Name", enter "localhost", then input your MySQL user name i.e. "root" and leave the MySQL Password field blank. Enter the database name as "mambodb". Click Next. If you entered the details correctly, you will be taken to the next step.

6. You will get a page to confirm the site details. Here, the URL should be http://localhost/mambo and the Path should be C:\Program Files\EasyPHPx-x\www\mambo. Enter your mail ID and admin password as well.

Entering the server details

7. If all goes well, your installation of Mambo will be complete! Now click on the "Administration" link, enter your details, and start modifying your site!

### 8.4.4 Resources

Mambo has a huge base of resource sites.

MamboXchange.com is a site that connects Mambo developers from around the world. Here's where to go if you're interested in the development of Mambo.

Mambo's Administration Module

MamboDesign.co.uk offers the latest and best Mambo templates. It has both free as well as paid templates for your Mambo-powered site.

Mambopower.net is another Mambo modification site offerings lots of modules, hacks and templates. Newropeans-Magazine.org is a news site based on Mambo. According to Alexa, it is one of the top 10 media sites in the world.

Mitsubishi.com.pl is the Web site of Mitsubishi Motors, Poland, which uses Mambo as its CMS.

# 8.5 PostNuke

### 8.5.1 Introduction

PostNuke is a popular CMS and is based on PHP-Nuke. It is classified as open source software and is released under the terms of the GPL. This CMS is developed by the PostNuke Software Foundation, and is offered free of charge.

The requirements of PostNuke include PHP (version 4.1.0 or later) and MySQL (version 3.23 or later). The developers recommend the use of Apache Web server for taking advantage of PostNuke ShortURLs technology, which makes the site URLs shorter and more search-engine friendly.

As mentioned earlier, PostNuke is based on PHP-Nuke. It was developed by a few users of PHP-Nuke, who felt that the development environment should be free. The current version of PostNuke is 0.762, and version 0.800 is in the works.

In 2005, the German PostNuke Community won the *Galileo Computing Open Source Sponsorship* presented by Galileo Computing.

### 8.5.2 Features

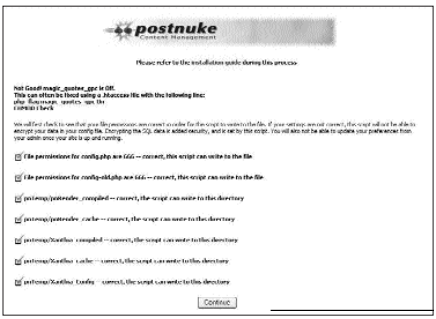
PostNuke is a CMS that can be used out of the box. Unlike PHP-Nuke, you don't need to customise PostNuke too much. It is another modular Content Management System in which you can turn on and off the various modules whenever you want.

- PostNuke is a very *secure* CMS, and the developers acknowledge security an area of prime focus.
- PostNuke has an advanced theme engine called Xanthia. This is one of the best theme engines with advanced configuration options and support for CSS stylesheets.
- The Administration Menu is simple, and is well divided into tabs for avoiding clutter.
- The News Submission module is simple yet powerful. You can post a story in parts—the lead in, the main body and the trailing notes!
- As in PHP-Nuke, you can activate or de-active the various modules and blocks according to your needs.

❍ There are as many as 36 language packs available for PostNuke for localisation. This feature is useful if you're looking at developing a non-English Web site.

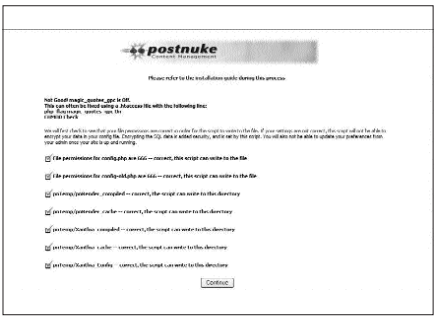
### 8.5.3 Installation

1. Download the latest version of PostNuke from http://www.postnuke.com. We recommend you use Win Rar to extract the archive on Windows.



PostNuke's pre-installation check

2. After extracting the archive, copy the contents of the "html" folder to a new folder "postnuke". Place this "postnuke" folder in the "www" directory in C:\Program Files\EasyPHPx-x\



The PostNuke Admin Panel

3. Now point your browser to http://localhost/postnuke/install.php. You should get the initial PostNuke installation page. Select your language and click on "Set Language". PostNuke will now run an installation check. Click Continue.

4. You will be presented with a page asking for the server details. In "Username" enter "root" and leave the "Password" field blank. In the "Database Name" field enter "postnukedb". Click Submit. If you entered all the details correctly, you will be taken to another page. Here, review the information you entered, and click on "New Installation".

5. You will now be presented with the "New Install" page. At the bottom, check "Create the Database" and click on "Start".

6. The installer will create the database for you. Now, you will need to enter personal details for the administration account. After you have entered the details, click on "Set Login".

7. That's about it—the installation of PostNuke is complete! Now, log in to your new site and start modifying it by logging into the Administration menu. However, you will need to delete the install.php file and the "install" folder from C:\Program Files\EasyPHPx-x\www\postnuke before logging into the admin panel, for security reasons.

**8.5.4 Resources**

Over the years, PostNuke has developed into a mature CMS and has quite a few support sites that offer tools for modifying PostNuke.

Community .Postnuke.com offers a comprehensive list of modules, themes and blocks for customising your PostNuke installation.

PostNuke.ru is a resource site for PostNuke that offers some useful modules. It is quite popular among the PostNuke community.

Postnuke.lexebus.net is a very good site that offers themes for PostNuke. In addition to this, they offer blocks and modules.

Vulkan24.com/vulkan.de/ is the Web site of Vulkan, a market leader in the manufacturing of power couplings. They've used PostNuke as a CMS for their site.

It-shop.t-com.de is an online shopping Web site powered by PostNuke.

# 8.6 Joomla

### 8.6.1 Introduction

A relatively new CMS, Joomla has taken the CMS industry by storm. Based on Mambo, it is elegant and extremely easy to use.

It is classified as open source software and is licensed under the terms of the GPL. It can be downloaded free of cost from joomla.org, and the current version is 1.0.8. According to the developers, Joomla 2.0.0 will be completely re-written with PHP5.

Joomla came into existence as a result of a dispute between the developers of Mambo. Miro Corporation, which held the trademark for the name Mambo, came together with a bulk of the core developers to form Joomla. They registered a non-profit organisation to fund the project and to protect it from lawsuits.

Joomla is the phonetic spelling of the Swahili word Jumla, which means "together."

### 8.6.2 Features

Being largely based on Mambo, Joomla has a similar set of features. However, it stands out due to certain key features:

- Like Mambo, Joomla looks like just another HTML site. So, the customisation required for Joomla is limited.
- The news and article management system is the *most* advanced, with a fully-featured WYSIWYG editor integrated with options to add tables, flash content and advanced HTML content.
- There is an option to add Metadata to each news story, which is a very useful option and helps in enhancing search engine rankings.
- Joomla features an advanced caching system that helps in improving performance on busy sites.
- An RSS management system is built into Joomla, and you can use it to provide news feeds from your site.
- The Theme Engine is a wonderful addition—a lot of elegant themes are available.

### 8.6.3 Installation

1. Download the latest version of Joomla from www.joomla.org. We recommend using WinRar to extract the archive on Windows. Copy the extracted contents to a new folder "joomla". Place this folder in the "www" directory in C:\Program Files\EasyPHPx-x\.

2. From now on, the installation is quite simple. Point your browser to http://localhost/joomla/. Joomla will now run a pre-installation check. After this, you can go ahead and install Joomla.

4. After Joomla runs the pre-installation check, click the Next button at the top of the page. Now enter the details about the local server.

5. Under "Host Name", enter "localhost", then enter your MySQL user name, i.e., "root", and leave the MySQL password field blank. Enter the database name as "joomladb". Click Next. If you entered all the details correctly, the installer will proceed to the next step.

Joomla's installation Wizard runs the pre-install check

6. At the next page, you'll need to confirm the Web site details. Here, the URL should be http://localhost/joomla and the Path should be C:\Program Files\EasyPHPx-x\www\joomla. Enter your e-mail ID and administration password as well.

7. If you followed all the instructions correctly, your installation of Joomla should be complete! Now click on the "Administration" link, enter your details, and start modifying your site!

### 8.6.4 Resources

Since Joomla was formed after the development team at Mambo split up, quite a few of Mambo resource sites decided to convert themselves into Joomla resource sites.

Joomlart.com provides free as well as paid themes and a few extensions for Joomla. The themes are elegant and are popular within the community.

Joomlashack.com is another theme site that offers both free as well as paid themes for the Joomla CMS.

Mamboportal.com is a very popular Joomla modification site that offers useful modules and themes for Joomla.

Pychotka.pl is a popular Polish cooking site made in Joomla.

Hausgarten.net is a German gardening site powered by Joomla.

## 8.7 Drupal

### 8.7.1 Introduction

Arguably the second-most popular CMS after PHP-Nuke, Drupal was essentially a blogging engine. But over the years it has evolved into a fully-featured content management system. It is developed and maintained by a group of independent developers. It is offered free on Drupal.org, and the current version is 4.7.1.

Drupal was originally written as a bulletin board system by Dries Buytaert. “Drupal” is the English spelling of the Dutch word “Druppel,” which means a drop of water. It is released under the terms of the GPL. The Drupal core offers excellent protection against security threats, which is ideal for small businesses as well as independent developers. Due to its flexible interface, features and ease of use, many popular sites use Drupal as their base.

### 8.7.2 Features

Over the years, Drupal has gained most of the features that a CMS has, and today, it is on par with other CMSes as regards features:

- One of the unique selling points of Drupal is its theme engine. It offers a lot of options for customising each theme. Drupal is known to be a very flexible CMS, and there are quite a lot of themes available for customising your Drupal installation.
- The module management system in Drupal is pretty simple and offers you options to enable, disable or update the different modules available.
- It offers a comprehensive Content Creation system that offers various input formats, authoring and publishing options.
- You can restrict access to parts of your site through the Access Control system. You can also set Access Rules and Roles.
- There is a useful comments management system wherein you can approve, modify and delete comments made on your Web site.

### 8.7.3 Installation

1. Download the latest version of Drupal from www.drupal.org. Extract the archive using WinRar or WinZip.

2. Copy the extracted contents to a new folder called "drupal". Place this folder in the "www" directory in C:\Program Files\EasyPHPx-x\

3. You'll have to create a database using PhpMyAdmin. Go to http://localhost/mysql/. In the main PhpMyAdmin menu, under "Create new database", enter the database name "drupaldb" and click on "Create".

4. Under the "drupaldb" database, click on SQL on the top bar. Under the sub-heading "Location of the textfile", click Browse and select the "database.4.1.mysql" file, which is located in

Populating the Drupal database

"C:\Program Files\EasyPHPx-x\www\drupal\database\". Then click on "GO".

5. In the next step, you'll have to edit the configuration file to enter details about your server. Go to "C:\Program Files\ EasyPHPxx \www\drupal\sites\ default" and edit the file "settings.php". In

Drupal's Administration Panel

this file, in the field "$db_url", enter "mysql://root:@localhost /drupaldb" (without the quotes), "root" being your MySQL username and "drupaldb" being the database name.

6. The installation part is now complete. Point your browser to http://localhost/drupal/. To begin with, you will have to create an admin account. Click on "Create the First Account" on the home page of your Drupal installation. Now login into Drupal and start customising your site from the admin menu!

**8.7.4 Resources**

Like other popular CMSes, Drupal has quite a few resource sites. Also, a lot of popular sites are powered by Drupal.

Themes.drupal.org offers a comprehensive list of free themes for Drupal. These themes are elegant as well as light, which is one of the reasons for Drupal's popularity.

For users who would want to customise Drupal, http://drupal.org/project/Modules offers a lot of useful modules for modifying the CMS.

SpreadFirefox.com, the home of Firefox community marketing, is powered by Drupal.

TheOnion.com, the popular *faux* news site, is based on Drupal and shows the extent to which this CMS can be modified.

ProjectOpus.com, a music download site, uses Drupal as its base.

## 8.8 XOOPS

### 8.8.1 Introduction

XOOPS is a free Content Management System released under the terms of the GPL. XOOPS can be freely modified, distributed and used under the terms of the GPL. It was initially developed as a portal system, but over the years, it has developed into a proper Content Management System.

XOOPS is an acronym for eXtensible Object Oriented Portal System. It can serve as a Web framework for use by small, medium and large sites. According to XOOPS.org, XOOPS is pronounced "Zoops." It is maintained and developed by the XOOPS Foundation, a non-profit organization.

### 8.8.2 Features

Another modular CMS, XOOPS has developed into a fully featured CMS over the years. It offers a clean and elegant environment and offers quite a few unique features:

- XOOPS offers one of the best Module Administration systems. The interface is icon-based, and you need to install the modules according to your requirements.
- The XOOPS Download Manager is quite comprehensive and offers options for submitting content, reporting broken links and other such options. You can further modify and tweak the download manager from the Preferences menu.
- XOOPS has a basic Bulletin Board module bundled. This module is useful for those looking to offer basic support to the customers on their site.
- However, one wishes that the developers would improve upon

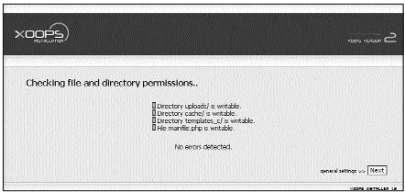
the News Management system, which lacks on features that are supported by other popular CMSes.

❍ XOOPS features a useful Web Links system wherein users can add, submit and rate various Web sites.

### 8.8.3 Installation

1. Download the latest version of XOOPS from www.xoops.prg Extract the downloaded archive. You can use WinRar or Winzip.

2. After extracting the archive, you will get three folders named "html", "extras" and "docs". Copy the contents of the "html" folder into a new folder called "xoops". Place this folder in the "www" directory in C:\Program Files\EasyPHPx-x\.

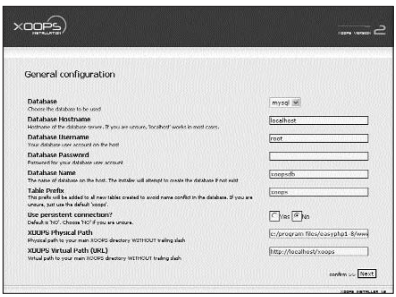


The XOOPS installation Wizard

3. Now, point your browser to http://localhost/xoops/. You will get the XOOPS installation wizard. Select your language and click Next. XOOPS will run a pre-installation check. Click Next again.

4. Here you will be presented with the General Configuration Wizard. Enter the database username as "root" and leave the password field blank. In the Database Name field, enter "xoopsdb". The wizard will automatically detect physical and virtual Paths. Click Next.

5. The wizard will save the data you entered to the configuration file, and it will attempt to create a database. Click Next.



Enter your server information carefully

6. After the database creation, you will get a page where you'll need to enter your personal details for creation of the administration account. Enter your details and click Next.

7. Installation is complete! Log in into your site using the admin account you just created and start modifying your site from the Administration Menu.

**8.8.4 Resources**

XOOPS has a large and enthusiastic community with quite a few sites offering themes, modules and other utilities.

Xoops-tips.com is a site that offers tips and tricks to make your XOOPS installation that little bit better.

Another site that offers XOOPS modules and themes is Xoopsfactory.com.

AstonThemes.com is a Web site that specialises in XOOPS themes.

Drackouniverse.com is a fantasy novel Web site powered by XOOPS.

Buzaulive.ro, a Web site on the city Buzau, sports a XOOPS installation with an elegant look.

## 8.9 PHP-Fusion

**8.9.1 Introduction**

PHP-Fusion is not as big or popular as other content management systems. But it still is one of the best free CMSes available. It is an *extremely* light CMS, which does not miss out on any features. The interface is minimal and elegant. It has been developed by Nick Jones in PHP and utilizes MySQL as a database system for the con-

tents. It is offered free at php-fusion.co.uk, the current version is 6.00.307, and the roadmap for the future looks solid.

Being a relatively small CMS, the community has bound together tightly and offers comprehensive support to people willing to use PHP-Fusion for developing their Web site.

**8.9.2 Features**

PHP-Fusion is a very simple CMS. It is specifically meant for people who want to keep their site light, simple and feature-rich.

- Being a modular content management system, you can turn on and off various parts of PHP-Fusion.
- PHP-Fusion offers a pretty basic Article Management system. This is ideal for people who would want to post news on their Web site without too much formatting.
- It is one of the few content management systems that offers an integrated Photo Album system. You can add categories, scale images, and display your photos on the main page using the photo album module.
- There is a comprehensive User Administration system offered by PHP-Fusion wherein you can create user groups, modify users, blacklist and ban troublemakers, and give privileges to groups.
- The Administration Menu is very simple and is divided into three parts—Content Admin, System Admin and User Admin.

**8.9.3 Installation**

1. Download the latest version of PHP-Fusion from http://php-fusion.co.uk. You will need WinRar to extract the archive on Windows.

2. After extracting the archive, you will get quite a few files and folders. Copy the contents of the "php-files" folder into a new folder "fusion". Place this folder in the "www" directory in C:\Program Files\EasyPHPx-x\.

3. You will need to create a database for PHP-Fusion using PhpMyAdmin. Go to http://localhost/mysql/. In the main

PhpMyAdmin menu, under "Create new database", enter the database name—"fusiondb"—and click Create.

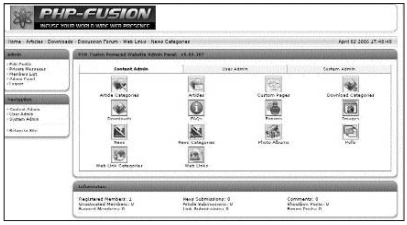
4. Now point your browser to http://localhost/fusion/. The installation script will run the pre-installation check. In the next step, you will have to enter details about your server. In Database Username enter "root" and leave the Database Password field blank. Enter "fusiondb" as the Database Name. Ensure you've entered all details correctly. To continue, click Next.

The Database access settings

5. If you entered all information correctly, the installer will create the database tables in the "fusiondb" database. You will now be asked to enter details about your Super Admin account, which will be used to administer your PHP-Fusion installation. After entering your details, click Next.

Creating the Admin account

6. If all goes well, the installation part will be complete. Point your browser to http://local-



PHP-Fusion's Admin Panel is well categorised

host/fusion/ to view your very own PHP-Fusion installation. For security reasons, delete "setup.php" from "C:\Program Files\ EasyPHPx-x\ www\fusion".

7. Log in into PHP-Fusion and start modifying your site using the Admin Panel. PHP-Fusion is very flexible and offers a lot of options.

### 8.9.4 Resources

Being a smaller CMS, PHP-Fusion does not have the kind of resource sites a bigger and more popular CMS would have. But, despite being limited, the modules and themes available for this CMS are excellent.

www.PhpFusion-Themes.com is a resource site for PHP-Fusion that offers simple, elegant themes for the CMS.

www.PhpFusion-Mods.com is a site that offers useful modules and hacks for PHP-Fusion.

www.Cruisejournals.com is a community Web site powered by PHP-Fusion.

www.Web-bureau.com is a site that offers tips, articles and tutorials on how to make a great Web site. This site uses PHP-Fusion as its CMS.

## 8.10 e107

### 8.10.1 Introduction

e107 is another popular CMS widely used for developing Web sites. It is released under the terms of the GPL.

The requirements for e107 are Apache, MySQL (3.23 and above) and PHP (4.3.0 and above). The developers recommend using Apache as the Web server, though any Web server supporting MySQL and PHP should work. The current version offered is 0.7.5.

The e107 community offers comprehensive support to users through their forums, wiki and FAQ site.

**8.10.2 Features**

Like Joomla, e107 looks just like an HTML site, and requires very little customisation. It can be used out of the box and has quite a few key features.

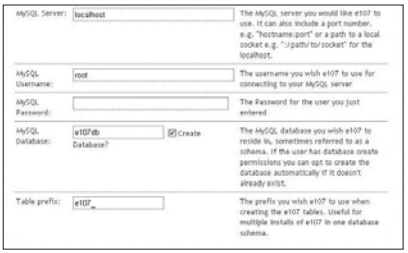
- The Administration Panel is neat and offers quite a lot of information about your e107 installation.
- The Content Creation system is quite comprehensive and offers lots of options. Although the WYSIWYG editor is not as feature rich as that of Mambo or Joomla, the plethora of options make up for it.
- The Theme Manager is another useful feature e107 offers. It is one of the few theme managers that provides a thumbnail view of the theme. Though it's a simple feature, many CMSes miss it.
- e107 offers a Banner Rotation system for the advertisements on your site. There are various options relating to banner display, which are very useful in daily use.
- The Download Manager is again a very useful feature. You can categorise downloads, set or update limits, create mirrors and do much more!

In addition to the above features, various forum systems can be integrated with e107 using plugins available on their site. Overall, e107 is one of the best CMSes available with several unique features.

**8.10.3 Installation**

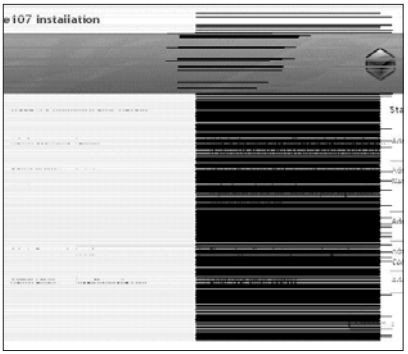
1. Download the latest version of e107 from http://e107.org. You will need to extract the e107 archive. You can use WinZip or WinRar for this purpose.
2. After you extract the archive, copy the extracted contents to a new folder called "e107". Place this folder in the "www" directory in C:\Program Files\EasyPHPx-x\.
3. Installation from here becomes pretty simple. Point your browser to http://localhost/e107/ and you will be presented with an installation Wizard. Select your language and click Next.

4. In this step, you will have to enter details about your server. In the MySQL Username field, enter "root", and leave the MySQL password field blank. MySQL Database will be "e107db", and check the "Create" box next to this field. Click Continue at the bottom of the page.



Enter your server details here

5. After running an installation check, the installer will ask you for the Administrator account details. Enter your details and click Continue. However, do remember the information you entered, as this account will be used for managing your site.



Remember the Admin details you enter here

6. If you entered all the information correctly, the installation part will be complete. You will be re-directed to your e107 Web site. Go ahead and customise it!

### 8.10.4 Resources

There are quite a few sites offering themes, modifications and other utilities for e107.

http://e107themes.com offers a variety of free, elegant themes for e107.

Your ready-to-go e107 Web site!

www.e107coders.org is dedicated to the discussion and creation of plugins for the e107 CMS.

www.e107hacks.org is a site that features useful modules and utilities for e107.

www.e107uk.co.uk is the UK community Web site for this CMS.

## 8.11 DragonFly CMS

### 8.11.1 Introduction

DragonFly is another impressive open source CMS. It was previously named CPG-Nuke. In those days, it was based on PHP-Nuke 6.x. The development team has spent quite a bit of time improving the features and further optimising the CMS. It is developed by an independent group of developers, and is offered for free on cpgnuke.com. The current version is 9.0.6.1, and it is licensed under the terms of the GPL. The basic structure of PHP-Nuke is still retained, though it is comes with a completely new cache system, a revamped theme system and a complete code rewrite. In the early days, it featured the Coppermine Photo Gallery—hence the name CPG-Nuke. The requirements include PHP4, MySQL 4.x or 5.x/PostgreSQL though support for PostgreSQL is still in an experimental stage. The developers recommend using Apache Web server, but other Web servers are supported too.

### 8.11.2 Features

Being originally based on PHP-Nuke, DragonFly shares quite a few features with the former.

- One of the best features of DragonFly is the integration with the Coppermine Photo Gallery. Coppermine is considered to be the best and most flexible photo gallery and this offers a distinct advantage to DragonFly.
- DragonFly has a site-wide Cache-Based Template System, which improves performance on busy sites.
- DragonFly also features an integrated bulletin board system pow-

ered by PhpBB2. As with Coppermine, Dragonfly integrates its theme into PhpBB, which is an excellent feature.

- The developers claim that Dragonfly uses as much as 50 per cent fewer database queries as compared to other PHP-Nuke derivatives.
- The News Administration system in DragonFly is a huge improvement over PHP-Nuke and offers various options such as adding of BBCode, HTML, Flash content, and even video files!

**8.11.3 Installation**

1. Download the latest version of DragonFly from http://www.cpgnuke .com. You will need WinRar to extract the tar.gz archive on Windows.

2. After you extract the archive, you will get two folders: "documentation" and "public_html". Copy the contents of the "public_html" folder to a new folder called "dragon". Place this folder in the "www" directory in C:\Program Files\EasyPHPx-x\.

The DragonFly Installer

3. You will need to create a database for DragonFly. Log in into PhpMyAdmin by going to http://localhost/mysql/. In the main PhpMyAdmin menu, under "Create new database", enter the database name "dragondb" and click on "Create".

4. In this step, you will have to edit the configuration file to enter details about your server. Go to C:\Program Files\EasyPHPx-x\www\dragon\ and edit the file config.php. Enter "dragondb" for $dbname. Under $dbuname, enter "root", since it is your PhpMyAdmin username. Let the $dbpass field remain blank.

5. The difficult part is over. Now point your browser to http://localhost/dragon/install.php. The installer will run a pre-installation check. Click on "Let's build the database" to continue.

6. After creating the database tables, the installer will present a page where you will need to enter information to personalise your installation. Enter the site name, administrator e-mail and your domain name ("localhost" while installing under EasyPHP). Leave the other fields at their default values.

7. In the next step, you will have to enter your administrator account details. Do remember the information you enter, as this account will be used to manage your Web site.

8. If all goes well, your DragonFly installation will be complete. Go to http://localhost/dragon/admin.php to modify your Web site.

**8.11.4 Resources**

DragonFly is a relatively new CMS, and the modifications available for it are not as many as those available for the more popular CMSes.

DFMods.com is a site that offers modifications and add-ons.

A lot of nifty and powerful add-ons for DragonFly are available at DFAddons.com

DFwiki.com is a place to get tools, tricks and tutorials on the installation, administration and day-to-day use of DragonFly.

## 8.12 CivicSpace

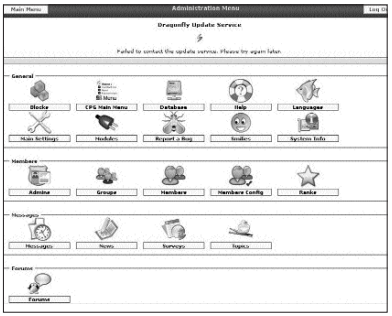
**8.12.1 Introduction**

CivicSpace is a very interesting CMS. It was formerly known as DeanSpace and Hack4Deam. The interesting part of this CMS is that it was developed to power Web sites supporting the Presidential Candidature of Howard Dean in 2004.

CivicSpace is based on Drupal, which has been under development for more than four years by a community of independent

developers. It is developed and maintained by CivicSpace Labs; the current version is 0.8.4. CivicSpace can be freely downloaded from civicspacelabs.org, and is licensed under the terms of the GPL.

CivicSpace requires Apache HTTP server 1.3, MySQL 4.0.x or 4.1.x, and PHP 4.3.3 or greater.



The Admin menu looks similar to that of PHP-Nuke

### 8.12.2 Features

Being based on Drupal, CivicSpace shares quite a few features with it. However, as mentioned above, CivicSpace has been customised, and offers some unique features.

- CivicSpace is pretty much the only CMS that allows you to chose Site Profiles—that is, you can chose between options like a political platform, a personal Web site or a community Web site. Your installation will be correspondingly customised.
- CivicSpace is a powerful Blogging tool. It includes all the features you would expect of a good WYSIWYG editor and it also includes options to let your users create their own blogs and maintain them.
- A fully-featured Forum system is integrated into CivicSpace. People who would want to provide basic support to customers on their site will find this feature useful.
- Like DragonFly, CivicSpace offers a Photo Gallery system. You can also let your users build and maintain their own galleries.
- Another unique feature of CivicSpace is that it allows users to post content through blogging clients, which support XML-RPC Blog APIs. So, all you Flock users can now post news on your site without even logging on to it!

### 8.12.3 Installation

1. Download the latest version of CivicSpace from www.civicspacelabs.org. The CivicSpace archive comes in the .tgz format. We recommend you use WinRar for extracting this archive.

2. After extracting the archive, copy the extracted files and folders to a new folder called "civic". Place this folder in the "www" directory in C:\Program Files\EasyPHPx-x\. Now, point your browser to http://localhost/mysql/ to log in to PhpMyAdmin. In the main PhpMyAdmin menu, under "Create new database", enter the database name "civicdb" and click on "Create".

3. Point your browser to http://localhost/civic/install.php. The installer will give you an introduction to CivicSpace. Click on Begin Installation to proceed to the next step. The installer will run a pre-installation check. Click Install to proceed further.

4. In this step, you will get the option of either selecting a "Single site setup" or "Multiple site setup". Select "Single site setup". Check "Enable CiviContribute" if you want to use CiviCRM, which is an open source CMS primarily used for fund raising. We will not enable CiviCRM for now. Click on "Setup database" to continue.

Enter your server details with care

5. Now, you will be asked to enter the database details. Under the username field, enter "root" and leave the Password field blank. Enter "civicdb" as the Database Name. As we will not be installing CiviCRM, we will ignore its settings. After this, click Create Tables to continue.

6. After installing the tables, the installer will run a check for file permissions. It will give a few warnings about files being

"writable". Ignore that, since we are installing on our local server. Click on "Skip these checks" to continue.

The unique CivicSpace configuration utility

7. You will now be taken to the Civicspace Configuration Wizard. In the menu on the left hand side, click on "Administrator" and enter the details to create an admin account. Click on "Basic Settings" to personalise your installation. Click Next to complete your installation.

Wait! Isn't this Drupal's admin menu?

8. Point your browser to http://localhost/civic/ to view your own CivicSpace installation. Enter your login details and modify your installation of CivicSpace!

**8.12.4 Resources**

Since CivicSpace is still under development, third-party sites do not provide modules, themes and other add-ons yet. However, a lot of popular sites use CivicSpace due to its fancy background.

www.BetterDonkey.org is a site that fights for progressive change in Seattle. It is powered by CivicSpace and shows the flexibility of the interface.

Another site based on CivicSpace is www.MontclairPost.com, an independent forum operated by the members of the Montclair Community.

www.Rideforworldhealth.org is another elegant site based on CivicSpace for raising awareness of global health issues.

www.ConsultantCommons.org is a site powered by CivicSpace. It is a community site for providing non-profit technology support.

Another impressive site based on CivicSpace is www.OC-Tech.org.

## 8.13 How To Move Your Site To The Web Server

So, you've modified your CMS installation and ironed out the last bug? Now, you will have to transfer your Web site to your Web server so that your clients can view it. Transferring your Web site to your hosting account is pretty simple.

1. First and foremost, upload the whole CMS folder structure as it is. If you are using Joomla, then upload the entire "joomla" folder to your Web server.

2. At this point, you'll have to take a backup of your database from PhpMyAdmin.

3. Now, point your browser to http://localhost/mysql/ to log into PhpMyAdmin. In PhpMyAdmin, select your database. Under your database, click on "Export" in the top menu bar. This is the tab next to "SQL". You will see a box containing a list of all tables in the database. Select all the tables. Under the "Structure" option, check the "Add Drop Table" box.

4. Now, enter the name of the backup file you would like, in "File Name template". Under "Compression", check the "gzipped" box. Click Go.

5. Save the database file on your computer. We discussed how to run a set of SQL queries in PhpMyAdmin under the PHP-Nuke installation. Install the database file you just saved onto your Web server's MySQL database in a similar manner.

6. Next, you will have to edit the configuration file of your CMS and change the database name, username, password, and so on to those provided by your Web host. We've already discussed how to edit a configuration file in the installation guides above. The list of files to be edited for the different CMSes is in the Notes section (§8.13.1)

### 8.13.1 Notes

| CMS | File to be edited |
|---|---|
| PHP-Nuke | config.php |
| Mambo | configuration.php |
| PostNuke | config.php |
| Joomla | configuration.php |
| Drupal | settings.php located in /sites/default/ |
| XOOPS | mainfile.php |
| PHP-Fusion | config.php |
| E107 | e107_config.php |
| DragonFly | config.php |
| CivicSpace | settings.php located in /sites/default/ |

Unless specifically mentioned, all configuration files are located in the root folder of your CMS installation.

## 8.14 A Few Wise Words

So you've uploaded your site, and it is up and running. Hopefully, you'll be getting good traffic. But do remember to install the updates that the developers release from time to time. Most of these updates are security-related, and if you don't install these, you run a risk of exposing your Web site to the baddies of the Internet. All the best with your new site!

# Forums

A Web site seems really professionally done once it has a forum—regardless of what people post! Here, we talk about the importance and role of forums, and some popular forum packages. We also tell you how to set up the forum on your site using these tools.

## 9.1 The Value Of Forums

Forums are one of the most popular forms of online communication and idea sharing. A forum is, very simply put, a sort of group discussion carried on online, the participants of which form a community with common interests. A forum has no rigorous organisation, and is the sum total of its members' contributions. The beauty of a forum is that it can be specific or general; forums have topic heads, where varying subjects can be discussed, but under the proper category. Without actually having to leave the safe realm of your desktop, you could exchange shooting tips with a photographer from the US and another from Germany, for example. Today there are thousands of forums up and running, with members running into the millions!

Nobody today can afford to miss out on the forum fever that's gripping a sizable chunk of the online community. Some manufacturers also have separate forums on their Web sites; hardcore hardware testing authorities such as Tomshardware (www.tomshardware.com), Hard OCP (www.hardocp.com), and Guru 3D (www.guru3d.com) all have dedicated forums where visitors can become members and post queries or display their overclocked rigs. Almost every niche Web site will have a dedicated forum, and you can find a forum to cater to almost any like, from cooking to biking to home decorating. People become members of forums because they have interests in common, and can exchange ideas or views about a specific topic—a so called "expert opinion," if helpful, will garner respect for the poster of the tip.

There are also quite a few forums around that organise meets for members of say, a particular city, and members are also free to exchange personal information, although privately—that is, usually not on the forum posts themselves.

People, therefore, can not only make friends online, but also learn and further the knowledge in their fields of interest. If a person is interested in biking and computer hardware, there will, of

course, be a limit to the amount of knowledge he can gain hands-on and in his city. If this person were to register on forums, his biking and computing experience is so much the richer. He not only has access to tips and tricks that members will contribute, but can learn from the experiences of others, get insights into what he can do better and how, perhaps learn something new, and make like-minded friends in the bargain. To top it off, forums are free, as the saying goes about some of the best things in life!

Another example: our very own www.thinkdigit.com/forum has members as diverse as you can get—techy geeks, total newbies, office-goers looking to enhance productivity, people looking for a single solution, and so on.

Arguments fly back and forth: why substitute the real thing for an online personality? Forums feature more informed human beings! If knowledge does equate to power, well, read on!

## 9.2 Classification Of People On A Forum

Most people join forums to share experiences, whether general or subjective. The simple fact is that a forum is an extension of one of our most important necessities—the necessity to communicate: our ideas, plans, expertise and dreams. The urge to socialise is inherent in all of us. Forums simply extend that sociable instinct online, where there is a virtually infinite audience, who participate equally—or not so!

Being an extension of a society—a sort of online society—a forum has to have an order of hierarchy. As in real life, some form of governance has to prevail, else chaos will ensue. Taking a hard-core PC enthusiast forum as an example, a distinction can be made based on the regularity of contributions, and of course the know-how of the contributor, as below.

1. Moderators/Administrators: View these as the mayors and governors. They have extra rights and can ban people based on their activities; they basically control the forum, and are supposed to be impartial
2. Forum addicts: The hardcore enthusiasts who live and breathe online. They may be on several forums simultaneously, posting away to glory
3. Regulars: The guys/girls who make posting on a forum a regular affair, generally log on every day, and are healthy contributors
4. Occasional visitors: Members who may be online sporadically, may log in as often as twice a week, or as infrequently as once a month
5. Troublemakers: The outlaws of the forum, generally very active—even causing trouble is hard work, isn't it? The Mods are always on the lookout to bust such people. Some may have great subject knowledge, but just rebel against convention.
6. One-time visitors: Such members post just once, to solve a problem or gain some insight. Not considered to be members by the enthusiast and troublemaker categories, who take the pains to contribute regularly.

If you have a Web site with lots of—and possibly diverse—content, it's probably a very good idea to have a forum on it. This will dramatically increase traffic to your site, and apart from that, make for a more "complete" Web site experience.

## 9.3 Forum Packages

Let's get going with installing and getting your very own forum up and running. Here are some of the most popular forum packages for your Web site:

1. vBulletin
2. PHPBB
3. Invision Power Board
4. SMF (Simple Machines Forum)
5. Vanilla

### 9.3.1 vBulletin

vBulletin is a great forum package—one of the most popular forum packages, which is surprisingly efficient as well. It's been written completely in PHP. The backend database uses MySQL. Some of the salient features of V Bulletin:

1. It's scalable, and the database server and Web servers can be discrete machines.
2. Utilises MySQL as a backend, which is ultra-light on resources and hence fast.
3. All the advantages of PHP, that is, platform independence, cross-platform, and so on. In fact, the main advantage is that it shares a very significant trait with PHP—efficiency.
4. Advanced features for threads such as active users thread showing, new post indicator via PM, thread subscribing, post rating and polling, advanced admin tools for threads such as move, edit, delete, lock, quick replies, post previews, advanced text and MM signatures, extended smileys, and avatars.

vBulletin is paid software; a license costs $160 (Approx Rs. 7200). It's available for download once you've paid and registered, with easy-to-follow steps in the online help file. You will need to visit the members area, http://members.vbulletin.com, which should provide adequate support for even first-time users.

Once the archive has downloaded, you simply extract it. Note that at this point you'll need to have Easy PHP installed—or PHP, MySQL and Apache individually. You should now see two folders in your vBulletin directory, namely "do_not_upload" and "upload". The "upload" folder contains the files to be uploaded to your Web server. Before uploading, rename the config.php.new file in the "includes" folder to "config.php". The "do_not_upload" folder contains tools that allow you to perform tasks on the board. There is a "tools.php" that has to be uploaded to the "admincp" folder. This is an emergency-use only file, and should be deleted immediately after use or it will cause a severe security problem.

The "config.php" file is the mediator between vBulletin and your Web server. Any changes you want can be made here. Be careful though: we strongly advise you keep a backup of this file in case things go wrong.

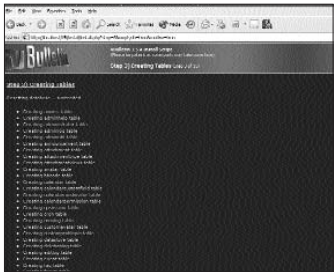
Similarly, you can edit the *Technical Email Address*, *Master Database Server Name & Port*, and the *Master Database User Name and Password*. Note that we haven't touched the "Slave Database Configuration," assuming there's a single backend database.

After editing, the config file has to be uploaded to your Web server. Using Smart FTP, which is a free software available from www.download.com/3001-2160_4-10543387.html, you can simply drag or copy and paste the entire "upload" folder to your Web Server. After uploading, you can rename the "upload" folder on the Web Server to whatever you want.

We used vBulletin on the same machine, that is, our Web server and database server were the same. If you're planning on doing something similar, all you need to do is copy the entire contents of the "upload" directory to the "www" folder in your PHP install directory.

Here's what you get the first time vBulletin is run

Now we need to actually do the vBulletin setup, which will be accomplished by typing in the full path of the "install.php" file in your browser window. For the example, we have used we used "http://localhost/VB/install/install.php"; once the install file runs, you will have to enter your registration number, after which there are 12 easy-to-follow steps,



Step 3, showing the creating of the various tables used by vBulletin

wherein the actual setup is tuned according to your specific needs. Very little user input is required, and installation should be a breeze.

In step 9, we input some very basic data that largely configures what's displayed on every page of the forum—such as your title-board, homepage, and Webmaster e-mail address.

In step 9, you configure what is displayed on every page of the forum

Just before the last stage is complete, it is mandatory for you to delete the "config.php" file in the /vb/install directory. In fact, the process will not complete for security reasons until you manually delete this file.

In the screenshot alongside, we supplied an Administrator username and password, which should be carefully guarded, and even more so, remembered—you get only five chances to enter these fields correctly, after which you'll be unable to log in for 15 minutes!

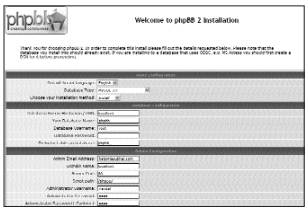
The Administrator setup. Don't forget the username and password!

Once you log in using the username and password you defined earlier, you will be greeted with a welcome window, which takes a second to redirect you to your forum's homepage. You can now create a test post. vBulletin is successfully installed!

Your first post!

### 9.3.2 PHPBB (PHP Bulletin Board)

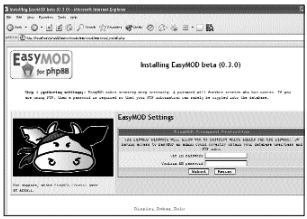
Like vBulletin, PHPBB is PHP-based, as the name suggests. It is also open source, meaning improvements are always a work in progress. Flexibility in the backend is a plus point for PHPBB, wherein a gamut of choices are available from the now familiar MySQL, to MS SQL or even Access/ODBC database servers.



PHPBB installation is a snap

The best part of PHPBB is that it's a free download; we've saved you the trouble—find it on this month's DVD. After downloading it, unpack and copy and paste the entire "PHPBB" folder to your "www" folder. You can now type in "http://localhost/ phpBB/install/ install.php", and the setup will initialise. PHPBB installation is very fast—no lengthy steps. All you need to do is enter the data as we have done in the screenshot above and click Start Install. Once it's installed you need to log in, for which you will be prompted for the Administrator username and password.

There is a mod for PHPBB called EasyMOD—a must-have if your forum runs on PHPBB, because it simplifies the installation of further mods, by replacing the interface with an ease-to-use graphical interface.



EasyMOD eases the installation of later mods

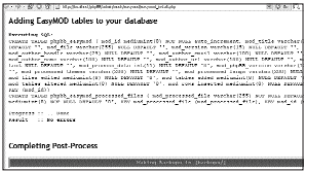
Once you get the install window alongside, select "This is a Windows Server", since our web server is on the same machine as our database, so no FTP is required. Selecting FTP will bring up another window, where the FTP settings need to be entered.

Note that the window shown to the right on the next page is an alternative to the one on the left; if you choose "I have ftp access to

Easy Mod's install window

Easy Mod has a lot of ftp settings

my PHPBB files" in the step above, only then will you get this window.

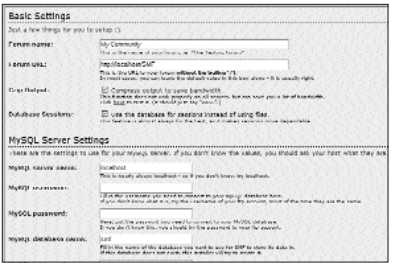



Easy Mod has been successfully installed

After this step, you simply need to enter an EM password and confirm it. Click and you're done!

### 9.3.3 SMF (Simple Machines Forum)

This is another free forum package based on the ultra-light and powerful PHP language, which uses MySQL as a backend. It owes its origins to replacing YaBB SE, a popular forum package that ran into problems mainly due to resource allocation. YaBB SE was the PHP port of YaBB, but suffered the familiar teething problems that most "first-time" software packages invariably contain. We won't go into the benefits of PHP all over again; significantly, SMF will always remain free, only the license doesn't permit removal of the copyright notice. Big deal!



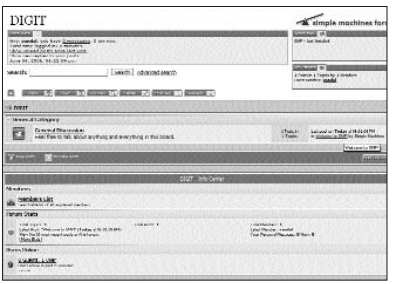

The install window of SMF

We have provided a copy of SMF on our DVD this month. Or, you can find it at www.simplemachines. org. Simply unzip it to a folder titled "SMF" (you can use whatever name you want). Now

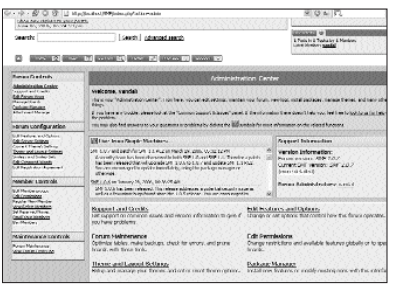
the entire folder is to be copied to the "www" folder inside EasyPHP. Using "localhost/ SMF" (where SMF is the name of your Small Machines Forum directory), you should get your install window, which will look something like the screenshot on the previous page.

Creating an account in SMF

The next window is where you need to create an Administrator account—pretty simple really: you need to enter your username, password, and a valid e-mail address. Also notice that the MySQL database password is required, meaning that unless you know the password for the database, you cannot create an Administrator account—for obvious security reasons. An admin should, after all, know his database password!



Our new forum—looks nice, doesn't it?



Here's where the admin controls everything!

Note that SMF very helpfully allows you to delete the install.php file; simply selecting it as an option does this. Contrast this with vBulletin and PHPBB, where you actually need to manually delete the install.php file. Simply click on the link "Your newly installed forum", and voila—your forum homepage appears!

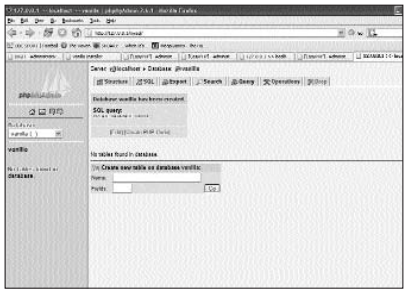
Clicking on your admin link will take you to the Administrator pane. Note here that in a small window you can see the current SMF version. This is the Administrator's playground from where permissions can be allowed or denied, threads created or deleted, registering and deleting of members achieved, and where the admin exercises all those superpowers we've always associated admins with!

### 9.3.4 Vanilla

Finally, we take a look at something relatively new, something small, built using PHP and of course MySQL: introducing Vanilla, which is 100% free and 100% open source. We've provided a copy of Vanilla on the CD to get you started. It's also available at http://get-vanilla. com.

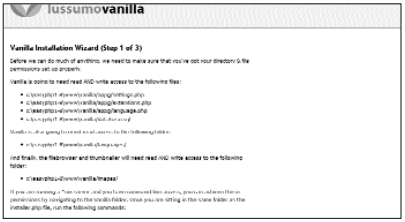
Download the .zip file, extract it, and copy the entire folder (assuming you've named it "Vanilla") to your "www" folder. In your Web browser, you need to type in the path to the "installer.php" file, which should be in the *Vanilla* root directory. But there's a catch here. Vanilla actually needs you to create a database first manually, unlike the other forum packages we've mentioned here. For this, go to EasyPHP on your taskbar, right-click > Administration > Manage database, and from here the window will look like the screenshot alongside.

Creating a database for Vanilla



A database called Vanilla has just been created

Once the "installer.php" file is run, your first window will look like the screenshot alongside.




The installer file being executed from your browser window

You now need to enter the SQL Server name ("localhost" in our case), while the database name will be "vanilla" (as we specified during creation). Finally, you come to the Administrator setup, where you need to specify your admin username and password, along with other details.

Here's where you set up the Administrator account

You'll now be taken to the forum window. Explore a bit: you'll find the settings window quite interesting—lots of powerful options available here! Another popular forum package is IPB (Invision Power Board), the license for which costs $185 (Rs 8,300).

Your new playground: the admin settings panel

There you have it. The tools may be different—take your pick—but creating your own forum was never easier!

# Finishing Up

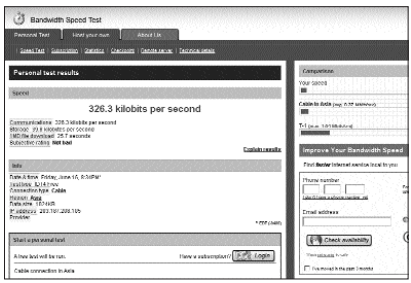
In the previous chapters, you've learnt how to build sites. Since you've done all that on your local machine, it's time to upload it all and test it. In this chapter we'll show you how you should go about making your site go out live to the world and then testing it to make sure everything works. We'll also give you a little insight into how to make Google love you, and more!

# 10.1 Hosting Your Own Site

Once you're all done designing your site—whether it's HTML-based or runs off of a complete content management system—it's time to let the world see it. Very few of us have broadband-enabled servers or computers that are always-on, so you're probably not going to be able to run the site off your own computer. A lot of us want to be able to, however, so let's first look at what we need in order to be able to host our own sites on our PCs.

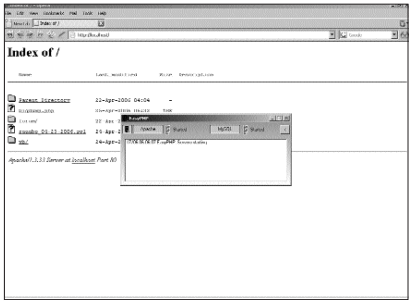
### 10.1.1 What you need

In order to host your own site, you will need to have a computer with a decent configuration, decide on a suitable operating system, Web server software and, of course, a broadband pipe that has at least 256 kilobits per second upload speeds—anything slower and your site is going to crawl! Most ISPs in India are offering 256 Kbps connections, but this is the maximum download speed you will get, not the upload speed. You can either ask your ISP what the cap on your upload speeds is, or just run one of the many bandwidth tests we will talk about a little later on. For now, you can go to **www.bandwidthplace.com** and run their speed test.




**Run a bandwidth test to check your connection speeds**

We have come across instances where ISPs only put a cap on your download speeds and leave the upload speeds open as per usage. What this means is that although some of you might have a speed cap of 256 kbps in terms of downloads, you might find that your uploads are unrestricted. Don't count on this happening, though: most ISPs restrict both upload and download speeds, and in fact, you are more likely to find that your upload speeds are limited to 128 or even 64 Kbps!



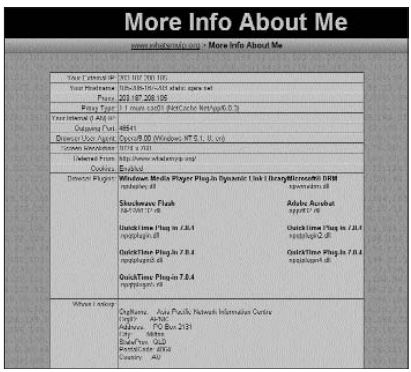
You can use EasyPHP itself to host your site

The best way to test your speeds is to make your site live and ask a friend with a broadband connection to help you test it. Perhaps the simplest way to get a site up is to use EasyPHP, as we've mentioned earlier in this book. You can just use EasyPHP as your Web server, even if your site is HTML-based and not PHP/MySQL-based, because all you need to do is place all the files in the ".\EasyPHP\www\" directory and then go to http://localhost/ to check it.

Now, for a friend to be able to help you test it, you need to have an IP address. A lot of ISPs will not give you a public IP address (an IP that's accessible from the Internet), so if your ISP is one of those, you're out of luck. If you do have a public IP address, however, you can go ahead and host your site.

### 10.1.2 Getting set to host

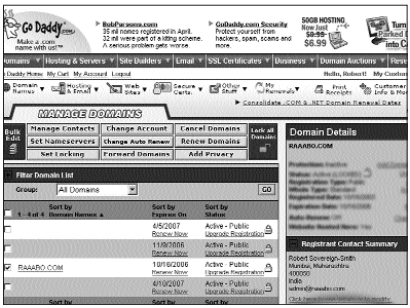
In order to find your IP address, visit www.whatsmyip.org or www.shomyip.com and note down your IP. If you go to whatsmyip.org, click on your IP address on the top (it's a link) to see more information about your IP and your ISP.



Check your IP at whatismyip.org

Now, you have to figure out whether you IP changes or not, so it's best to call up your ISP's help desk and find this out. If it

does, you will need to get some software that automatically changes the DNS records to point to a single URL, so that your site will always be accessible. Thankfully, there are many such software and services that are totally free.



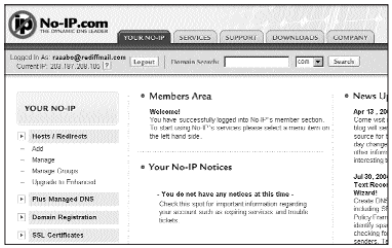
**Find your name servers at your domain registrar's site**

Since changes in a Top Level Domain (TLD) take quite some time to be updated, it's best that you use a service such as www.no-ip.com, get a yoursite.no-ip.com sub-domain, and then use a free DNS service such as ZoneEdit.com to Web-forward www.yoursite.com to yoursite.no-ip.com with the option to mask. Yes, this may sound like Greek to some, but we'll explain it all.

When you buy a domain from a registrar, it assigns its own *name servers* for your site. A name server is what tells someone trying to visit www.yoursite.com where that person's browser should go. This is generally something like pointing http://localhost/ to http://127.0.0.1/. Without any name servers, no browser would know which IP or page to go to when you type in a URL. Now, since there are millions of Web sites online, and only 13 root servers across the globe, those 13 servers cannot handle all the traffic of the Internet. So, many other DNS servers keep log records of domains and their resolved IP addresses, and only connect to a root server after quite some time to update their records. There are even further sub-categories of DNS servers which connect to the servers that connect to the root, and so on. So, as you can imagine, with the sheer amount of DNS servers that are online talking to each other, it can take days before a TLD DNS record is updated.

For sub-domains, such as *yoursite*.no-ip.com, the TLD is no-ip.com, and this never changes—so whenever someone types in yoursite.no-

ip.com, they are sent to the no-ip.com name servers, which contain the most up-to-date IP for your computer. This is because no-ip.com gives you a client software that runs as a service on your PC and automatically updates your IP as soon as you're connected to the Net. As long as you keep your computer online, yoursite.no-ip.com will point to it, and anyone will be able to access it using that URL.



Use no-ip to always point a subdomain to your dynamic IP

However, you have paid for a domain, and don't really want to have no-ip's name associated with your site, even if you *are* using their services for free—it's not as cool as www.yoursite.com! After you've set up your computer to point to a fixed URL in no-ip.com (or any similar service), go to www.zoneedit.com and register yourself and your domain there for DNS services. ZoneEdit is a completely free service for up to five domains (TLDs), and for the life of us we cannot figure their business model, because they don't advertise or anything, but we sure are thankful for their services!

Anyway, once you have registered and added your domain name to ZoneEdit, you will be given two ZoneEdit name servers (like ns12.zoneedit.com and ns15.zoneedit.com) for your domain. You will need to go to your registrar's site (where you bought your domain) and change the name servers to the ones ZoneEdit gives you.

You should set a "Web forward" from ZoneEdit to your dynamic DNS providers sub-domain (e.g. yoursite.no-ip.com) for both www.yourdomain.com and yourdomain.com as well. In a few hours at the maximum, you should be able to access your computer by typing in www.yourdomain.com, as should everyone else in the world! Just make sure you don't remove the dynamic DNS updater's client software from Startup or services and that you're always connected to the Net.

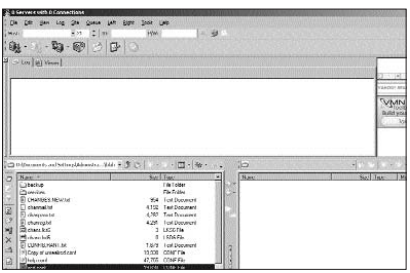
## 10.2 Uploading Your Site

An example of ad-supported hosting

If you've decided to get hosting instead of hosting your own site, you will first need to go through the very first chapter in this book to understand how to choose a hosting provider. You will also find various plans, and at various prices, or might even find free ad-supported hosting. If you're OK with ad-supported free hosting—where an advertisement is placed on your site by the hosting provider—first check to look for offers from your registrar itself. GoDaddy.com, for example, is one of the world's biggest registrars, and provides free ad-supported hosting with e-mail as well with every domain purchase.*

**This is a current offer subject to change.*

The choice is yours, and once you've bought hosting, you need to upload your site from your computer to the Web server. In order to do this, you will need an FTP client, or else you might end up losing a connection after 98 per cent is uploaded, and have to do it all over again—it's happened to people!


AceFTP Freeware will allow you to upload files and folders recursively

Now, FTP clients are a dime a dozen, and there's no real "best" software in this category. However, you will find many free and paid options, and to be honest, we think paying for an FTP client, no matter how many features it claims to offer, is a com-

plete waste of money. Just make sure you look for one very important feature: uploading "folders recursively"! What this means is that if you drag a folder from your local computer to transfer it to your FTP server, it will upload the folder and all its sub-folders and files in the exact same folder and file structure as it is on your local machine.

We use AceFTP 3 Freeware (www.visicommedia.com/download) ourselves, and you should try it. Remember, there's an AceFTP Pro version also, so make sure you download the "AceFTP Freeware" version!

Once you have your FTP client installed, use the username and password that your hosting provider gave you and connect from within the client to your site and upload everything in your local Web site's root directory to the root directory of the Web server. If you're using EasyPHP and have your site in a folder called, say, "Site," you should upload everything in the "Site" folder on your local hard drive (exactly the way it is) to your Web server's root folder (most often the folder that the FTP client connects to).

If you are using a PHP/MySQL-based site, you will also need to take an SQL dump from your local site and upload it to your Web server's MySQL database. The dump will be in a *.sql format, and you can go to your server's SQL admin (phpMyAdmin for example) interface and upload the *.sql file.

## 10.3 Testing The Site

Once your site is uploaded, you can navigate to it and start going through it to make sure everything is OK. The reason you have to check your site is that very often, when transferring the site from your local machine to a Web server, links get skewed. You might have uploaded a few files into the wrong folder, or a few files might not have uploaded properly (or at all). If you built your own HTML site with a Web page editor, especially a site that has over 40 pages, you might have missed a link or two which point to something on your local hard drive instead of a relative link to a folder. This means that you have a few images or links on your site that point to something like "C:\Documents and Settings\ Administrator\My Documents\My Webs\Site\abc.html" instead of just "/abc.html". As a result, it's obvious that you're going to get a "404 Page Not Found" error when you click on that link. This is why you need to check each and every link, image and page for errors.

However, if you have a site that's close to a hundred pages, or runs on a CMS, chances are you'll be too bored to check all those hundreds of pages, or will end up wasting too much bandwidth. It's just simpler to let a robot do all the work for you! Head over to www.deadlinks.com and type in the URL of your site. Now click "Launch the spider," sit back, and wait for it to finish its job. The site's tool has a timeout of 45 minutes, but your site will probably be checked way before that. If it's not done by then, you have built a site that's large enough to be a portal, and you should seriously consider paying for some of the more professional site-checking tools!

### 10.3.1 Standards

In order to check and make sure that your site conforms to most common Web standards, you should visit http://uitest.com and enter your site's URL. You will get a multitude of options and tests, including one which will show you how the Google spider views your site and how it will show up as a Google search result.

Advanced users can use the W3C standards test that's also available at http://uitest.com. In fact, there are so many tests at this site that you can spend a day there taking them all! The W3C's official validator is available at http://validator.w3 .org/

Use sites such as UITest to test your site

### 10.3.2 Browsers

The next thing you need to do is install as many popular browsers as you can and check your site with all of them. Look for formatting problems, skewed colours and the like. This will most often happen when there is some error in your code, or your code is not W3C-compatible. You should also get a feel for navigation links and whether the JavaScript (if any) on your pages is causing problems, or if it is an image or text highlighting that doesn't display properly, etc. At the very least, make sure you test your site with Internet Explorer, Firefox and Opera.

### 10.3.3 Other tools

If you apply gzip compression to your Web pages, you will have smaller file sizes and faster loading time. This is a Web server-supported feature, so you will first have to make sure your server supports gzip compression. You can check this by visiting www.whatsmyip.org/mod_gzip_test/.

For more tools than you'll ever need, visit www.softwareqatest.com/qatweb1.html. Some of the tests here are a little old or do not exist, but over 90 per cent still work.

Once you're done tweaking your site, you should then look at it for search engine optimisation.

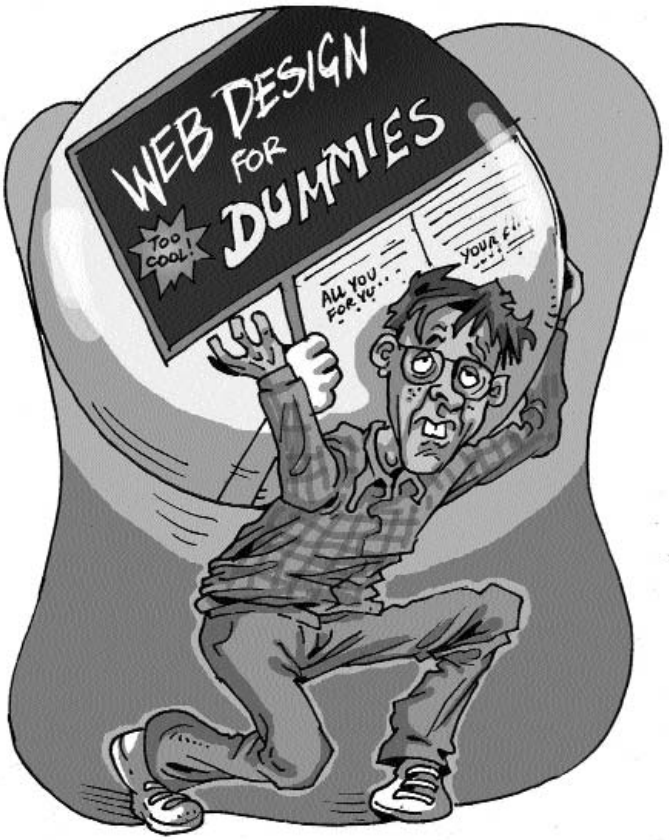
## 10.4 SEO—Search Engine Optimisation

We have already covered search engine optimisation in our November 2005 issue (page 117). We will just list a few basic dos and don'ts here:

1. Content is all-important. Make sure your content mentions the words you want to optimise for often throughout your pages. For example, if you want to optimise for the words "India technology news," make sure these three words occur often in the text, as near as possible to each other. Make sense of the content as well; just typing the keywords over and over again for no reason will get you blacklisted by Google and other search engines.
2. Fill your keywords into the title tag of the page.
3. Use them in your meta tags as well.
4. Make sure every image has "Alt" text associated with it so you can show up on image searches as well.
5. Name your images descriptively. For example, try not to call your logo image "logo.gif." Instead, call it something like "digitmagazine.gif" so that search engines will give it some love when searching for images.
6. Last but not least, don't wait for a search engine to find you. Tell it about your site by submitting your URL. Also make sure to submit your URL to as many search engines as possible.

Once you're done with all this, you will have finally succeeded in becoming a Web designer—all you now need is practice, and you can improve upon your skills!

# Resources



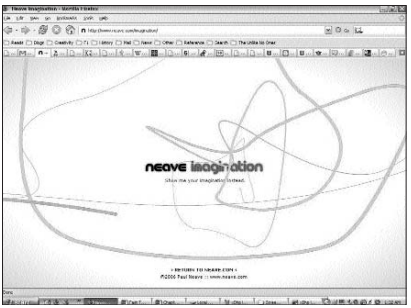

Looking at what people have done never hurts. It always helps to observe, learn and assimilate as much as one can about the subject when one is either just beginning, or is a seasoned pro. Here are some good starting points—Web sites designed well and not-so-well. Look, observe, learn!

## 11.1 Dos And Don'ts: The Dos

Like any Bollywood producer will tell you, "We all need a little 'inspiration' once in a while," obviously referring to the script of a hit Hollywood production. And just like our counterparts in the entertainment industry, we too could do with a little "inspiration" when it comes to Web design. Here are some exceptionally well-designed Web sites that just might inspire you to create a smashing Web site!

### 11.1.1 Neave (www.neave.com)

Paul Neave's Web site has been around for over five years now, and is an object study in the use of Flash to give a Web site a life of its own. Taking interactivity to a whole new level, Mr Neave's Web site is a personal project essentially intended to show off what a little knowledge of Flash, a little sense of style and a little time can do for a Web site. The site has loads of fun stuff to do. Neave has his own Flash version of the very popular Google Earth (aptly titled Flash Earth), but the most interesting section is the section called Imagination which is basically like doodling on paper, except much, much neater. Awesome!



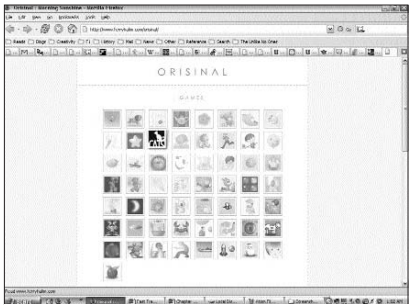
Let your imagination, and your mouse, run wild!

**Design Lesson:** Symmetry. Flowing lines and curves that are easy on the eyes.

### 11.1.2 Orisinal (www.ferryhalim.com/orisinal/)

Orisinal is the brainchild of designer Ferry Halim. Like Neave, it, too, is Flash-based, and almost all the content is Flash-centric. Orisinal games are sometimes naïvely simple, but are always fun to play. The Web page is clean and has scroll-over "light up" but-

tons, with descriptions of the games at the bottom of the page. Simple fonts and easy colours make it a pleasurable experience to browse.



Original games will keep you occupied during boring office days

**Design Lesson:** Simplicity. Follow the golden rule: when in doubt, simplify.

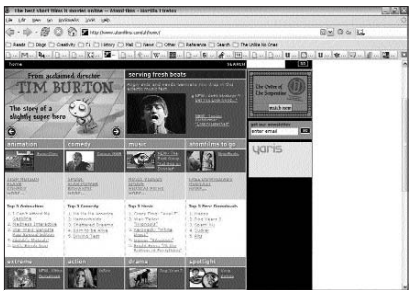
**11.1.3 Nokia (www.nokia.com)**

Mobile phone manufacturer Nokia proves once again that user interactivity is at the top of their agenda. Not usually a Web site one would visit just for the heck of it, Nokia's Web presence is almost as ubiquitous as their mobile counterpart. They have pages for every model of cell phone, in almost every country in which the model is available. The Web sites themselves are Flash wonders that beautifully guide you through phone features and specifications.

**Design Lesson:** Functionality. Get to the point as quickly as possible. The fewer the clicks, the better.

**11.1.4 Atom Films (www.atomfilms.com)**

For long the home of Flash films on the Internet, Atom Films is a library of some awesome creativity, and some pretty bored minds. The site is very easy to navigate and has links and buttons well-classified. The best part about the site navigation is that one can never get lost, despite there being tons and tons of content.

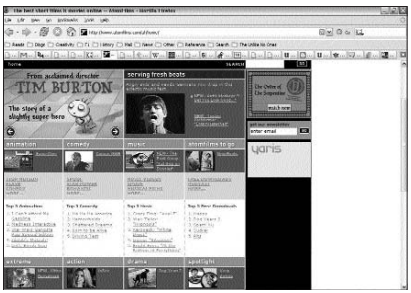


Atom Films has very well-classified buttons and links

**Design Lesson:** The easier the site is to navigate, the less the headache of getting to which section one wants to go to.

**11.1.5 Modesty Panel (www.modestypanel.com)**

Another personal experiment in Web design, Modesty Panel is the showcase of Margaret Nissen, whose passion for photography and quizzes this site brings out beautifully. There is not as much to do at this Web site as there is to see. The "Home" menu is simple, and the style flows to the other menus as well. Colours are used brilliantly at MP, and the same template is used consistently in all sections.




Modesty Panel shows a brilliant use of colour and colour matching

**Design Lesson:** Colours can be both very appealing and very disastrous. Be careful while using uncommon colours, ensuring that the text is easily visible over the background.

**11.1.6 xBhp (www.xBhp.com)**

Not technically one of the best-looking sites on the Internet, we chose xBhp more as an example of an Indian site that does its job well. If you're a biking enthusiast in India, xBhp is your destination for biking advice, chats, discussions, and a whole lot of other interesting biking stuff. The best part about xBhp is that every design element on the Web site sticks to the central theme—biking.

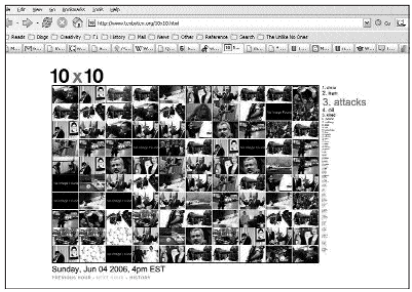
xBhp is a lesson in thinking straight and showing it!

**Design Lesson:** Stick to

when giving it design elements. Flower buttons won't do on a Web site about a nuclear holocaust.

**11.1.7 10 by 10 (www.tenbyten.org/10x10.html)**

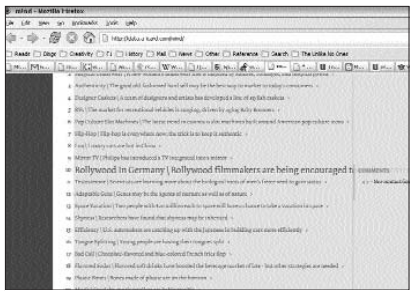
Taking news reporting to a whole new level, 10 by 10 is the work of developer Jonathan Harris. Essentially, 10 by 10 scours the web for RSS feeds from news Web sites and puts up a ten by ten matrix of the most popular news pictures and stories. Its interface is based on Flash, and one can identify a story by scrolling over the grid of pictures. Even with so much content (a hundred pictures) on a single page, the stories are easy to find and select.



Pictures, pictures everywhere, and stories so easy to select

**11.1.8 M!nd (http://data.a-icard.com/mind)**

M!nd is a project that analyses world trends and sorts out the top 100 in an easily accessible menu that shows, by category, stories related to movements in world business, technology and human lifestyle. Clicking on the "articles" menu of the homepage takes you to the 100 stories that the Web site has identified as trend-defining. One can sort stories by category and even search within stories.

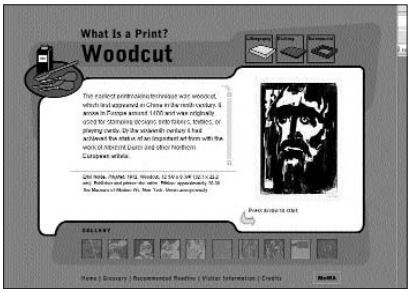


Free your M!nd, and the clutter of regular news sites

**Design Lesson:** It is always a good idea to use a font family when designing a Web page.

**11.1.9 What is a Print (www.moma.org/whatisaprint)**

WIAP is an exhibition of the Museum of Modern Art that describes the evolution of the printing press, starting from the earliest forms of printing. The Web site has good illustrations and extremely easy navigation, which makes it a pleasure to click and learn. There is also some fun Flash interactivity that really helps one understand the subject matter of the site in depth.



Learning has never been so much fun!

**Design Lesson:** Illustrations are an efficient way to make a point when words just won't do it.

**11.1.10 Well-designed Blogs**

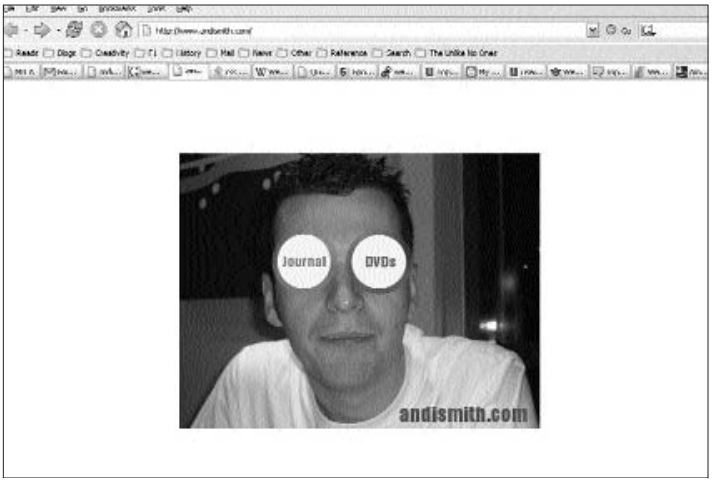
For all our blogger buddies, here are some neat blogs to check out and get some pointers from.

**11.1.10.1 Andi Smith (www.andismith.com)**

Londoner Andi Smith's blog is exactly what a blog should be—him. The easy-loading images and fonts, combined with Smith's own personal style make it a fun read, and more importantly, it's a blog that won't make you wonder why the writer is such a loser.

**11.1.10.2 My Life With Bad English (http://mylifewithbadenglish.blogspot.com/)**

MLWBE is the vlog (video blog) of Andrei Litvinov, who is coming to grips with America and the English Language. If you are a casual blogger, you will know what a difference it makes to a blog just by having your own images on it rather than the regular templates.




Your blog has to be YOU!

## 11.2 Dos And Don'ts: The Don'ts

It's always easy telling people what to do. However, telling them the other side of the story is a different ball game. Here's a short introduction to a few design disasters that you should avoid while designing your Web site.

### 11.2.1 Clutter

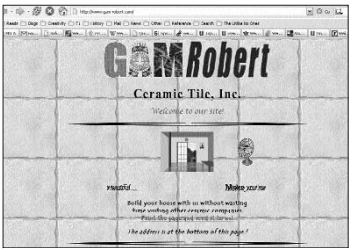
Like we've mentioned, simplicity is the most efficient way of getting a point across. Too much text and too many links is information overload, and frankly, one has nowhere to go but to another site. If you must have dozens of links on your site, make sure they are classified in sections for easy navigation.

Rediff—dear God, what were they thinking?

### 11.2.2 Different font sizes

For text content that is of a similar nature, that is, headers, footers, and body text, don't mess with the font sizes. If one header is a size 14 bold, make sure all your other headers are size 14 bold. Also, don't mess with the text formatting. If the body text for one section is left aligned, it is better to keep the body text of similar sections also left aligned. And obviously, get your grammar right.

### 11.2.3 Too many GIFs, moving elements



Too much animation is a big no-no

Yes, yes we know moving smileys are cool, but it is not necessary to have your whole page full of them. GIFs also take longer to load, and can just put people off. It is also not advisable to replace text with GIFs or other animations, as this is often confusing—and selection of obscure and unclear images will leave people wondering what the hell it was they clicked on.

### 11.2.4 Flash follies

Flash is a brilliant design-content tool for your Web site, but there is a tendency to overuse it. Too much Flash in places where simple HTML would have done the trick is, well, simply annoying. Also, there are some finer points that one should keep in mind when designing in Flash. Like having a Skip Intro button if your site has a Flash intro. Or having a Sound On/Off button if there is background music.

### 11.2.5 Uncommon link colours

It's not a good idea to use non-standard colours for links. Obviously, one must colour visited and unvisited links separately, the latter being decidedly brighter than the former. Blues and greens are generally accepted colours for unvisited links, while reds and purples suit visited links best. Not underlining links is another cause of user irritation as one has to guess or scrub the page for a link.

### 11.2.6 No pop-ups!

In true Times style, indiatimes has ads everywhere

First off, unless you're designing a porn site, or one with plenty of advertisements, even the thought of a pop-up shouldn't cross your mind. Opening clicked links in new windows, or opening new windows automatically, must be avoided unless absolutely necessary. And these days, browsers pretty efficiently block pop-ups, so it becomes a pointless exercise anyway.

### 11.2.7 No Archives, No Repeat Visitors

Especially for personal Web pages, it is a bad idea not to have your work archived for easy reference. Blog hosts usually provide this functionality within the blog template itself, but if you're designing your own from scratch, make sure people can access your old gems easily.

### 11.2.8 Horizontal scrolling

Since the inception of the Internet and Web sites, users have become accustomed to scrolling top-to-bottom on Web pages. Very rarely has one ever had to scroll left to right for anything unless it's a large image. And this is one trend that one must keep in mind while designing a Web site. Also, make sure your site is optimised for standard-sized windows (the standards keep changing, but 800 x 600 is generally considered OK).

### 11.2.9 Forget long URLs—people will!

There's no point having URLs that are more than 30 to 35 characters long! Too many dots, dashes, underscores and slashes don't do much more than confuse users, and the people they are giving the URL to. Keep your URLs short and related to the subject matter of the Web pages they link to.

### 11.2.10 The Four-Second Rule

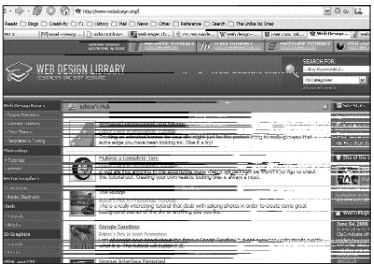
If one cannot figure out what the site is about within four seconds

of looking at the loaded web page, the site has most probably failed to make an impression on the user. Make sure the content on your Web site is crisp and to the point, otherwise the user will wonder where he's turned up.

## 11.3 Useful Sites

There are dozens of Web sites that give you a great starting point to start your journey into Web designing. Here are a few we thought you should check out.

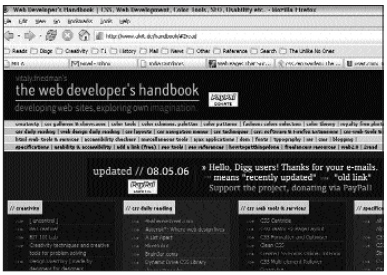
### 11.3.1 Web Design Library (www.webdesign.org)



WDL features easy tutorials and informative articles

The Web Design Library, as the name suggests, is a collection of several tutorials and articles on anything and everything related to Web design. From HTML to Vector Graphics, the Library is a storehouse of some very easy to understand and follow advice and tips and tricks about Web design. The Web Design Basics section is a great place to do some reading up before starting to design your own site. Beginners and pros alike are sure to find something here.

### 11.3.2 Web Developer's Handbook (www.alvit.de/handbook/)

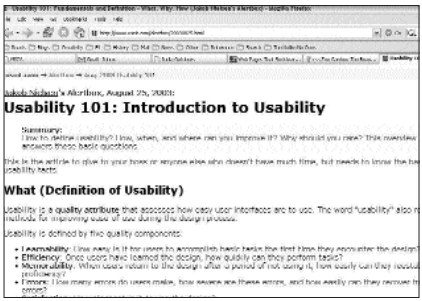


Links! More importantly, links that work!

Like the tagline aptly puts it, the Web Developer's Handbook is about "developing Web sites, exploring own imagination." More for someone who knows a bit about Web designing

already, WDH is more than just a handbook on Web designing. It's more like a one-stop shop for everything a web designer is looking for. Links are divided by convenient and crisp sections. A must-visit if you know you're looking for something, but don't exactly know what it is.

### 11.3.3 Use IT (www.useit.com)



Learn more about usability at useit.com

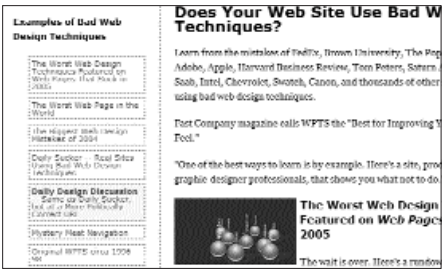
Use IT is Web guru Jakob Nielsen's Web site on "useable information technology." This is a great place to learn if one is developing a Web site for a company. Nielsen has loads of experience consulting on Web usability, and shares this on his Web site. There are some great tips a developer can get here for B2C and B2B Web sites. His Alertbox Columns are gems of information on how to make Web sites more user-friendly, and how to make sure one gets the right return-on-investment for one's Web site.

### 11.3.4 CSS Zen Garden (www.csszengarden.com)

Select a stylesheet and see the power of CSS!

For anyone hung up on CSS, this is definitely the place to visit. The Zen Garden is an attempt to get CSS taken seriously by Web design artists. Basically, the site allows CSS artists to develop CSS stylesheets. A brilliant example of their work is seen by clicking the "Select a Design" links, which change the design of the homepage!

### 11.3.5 Web Pages That Suck (www.webpagesthatsuck.com)




WPTS—Learn from everyone else's mistakes

It's always great to learn from your own mistakes, but it's definitely more fun, and less expensive, to learn from the mistakes of others! WPTS is guide to what your Web site *shouldn't* be like if it wants to get popular. A great place for commonly-made mistakes in Web design.