

# **Web Developer Guide**

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# Chapter 1: First Things First

This guide is a digest of *selected* control panel features. It is intended to be a resource for people that develop, administer, or otherwise oversee a website hosted on our servers. In particular, this guide provides important details about our server configuration, information that experienced web developers can consult to make educated decisions about how to best deploy their websites.

The audience for this guide is a mixed one; it runs the gamut, from seasoned web professionals to “point-and-click” users who want to learn more about the backend that powers their websites.

## Looking at the control panel

Your control panel is a container for all the tools offered in your hosting package. Tools are categorized and iconified. Some are enabled; others require you to upgrade your package before they may be used. The control panel also displays your account information (e.g. domain name, contract length, etc.) and the resources available to you (e.g. disk quota, used and free email accounts, etc.).

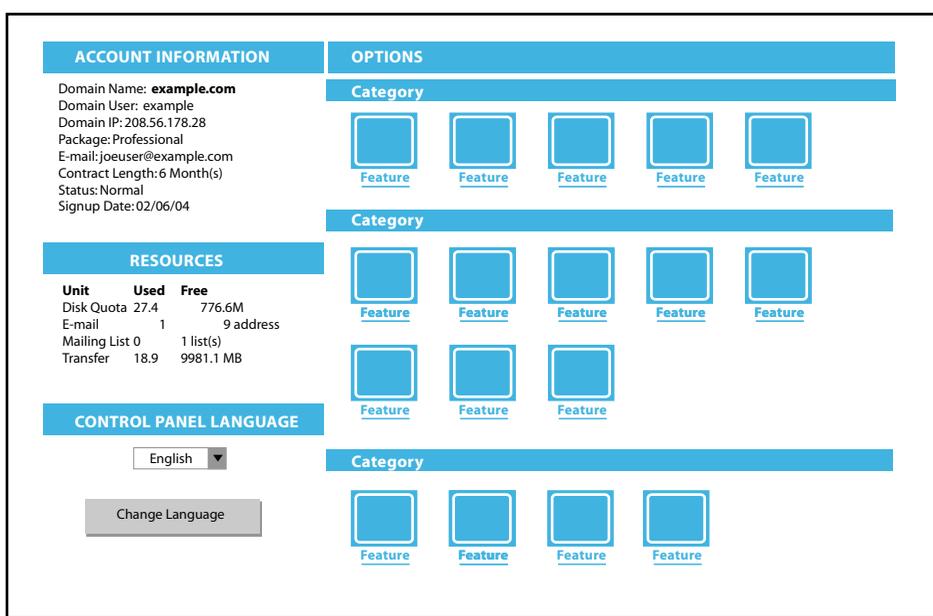


Figure 1: Control Panel Structure

### To log into your control panel:

1 Enter your domain name with the trailing string “/menu” into the location bar of your web browser. For example, if your domain is “wondering-boy-poet.com” you would reach your control panel login screen by entering the following into the location bar of your web browser.

2 To authenticate yourself in the system, enter your username and password in the login dialog and click OK.

## Understanding web directory structure

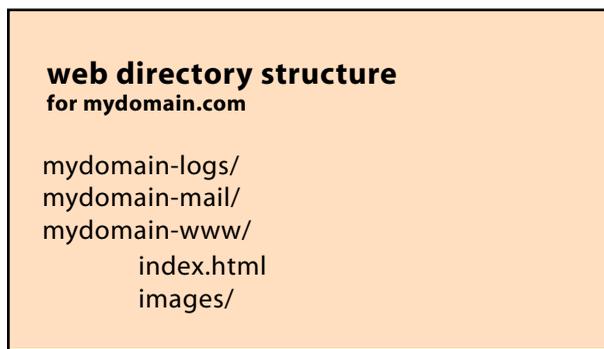
When you sign up for a hosting account with our company, a placeholder website is installed in your webspace. The directories in this placeholder website are based on the first eight characters of your domain name. For example, if your domain name were *mydomain.com*, your placeholder website would include the following directories:

**mydomain-logs** The archive location for your access log reports.

**mydomain-mail** The storage location for email messages sent to and from your website mail server.

**mydomain-www** The root directory of your website. The index page in this directory (named “index.html” by default) is the page that loads when a visitor enters your domain name (e.g. *www.mydomain.com*) in the location bar of her browser. This directory is the document root of your website—where you put your actual content (pages, images, scripts, etc.).

**Important Note:** *Your default directory structure also includes two symbolic links to the root directory of your website: *www* and *mydomain-secure*. These two directories mirror the content of *mydomain-www* (i.e. they contain the exact same files and subdirectories). Any changes you make in one of the directories (*www*, *mydomain-secure*, or *mydomain-www*) will be reflected in the other two.*



Depending upon your hosting package, there may be more directories in the placeholder website; these directories are associated with premium features. In general, these additional directories are not created until you activate their associated features in your control panel.

## Using directory indexes

A *directory index*—also known as an *index page*—is the file a web server loads when a visitor enters a URL that does not end in a filename. You might, for example,

have a directory index at `www.mydomain.com/products` that opens `www.mydomain.com/products/default.htm`; in this case, `default.htm` is the index page for the products directory. Our Apache web server is configured to look for—and attempt to load—the following directory index files in the order shown here:

- `default.htm`
- `index.phtml`
- `index.php`
- `index.cgi`
- `index.shtml`
- `index.html`
- `welcome.cgi`
- `welcome.htm`
- `index.htm`

**To use a directory index:**

**1** Choose one of the filenames recognized by our Apache server from the list above and use it as the name for your directory index.

**2** Ensure that no other file in the directory uses one of the other filenames in the list.

If you have two recognized directory index files in the same directory, Apache will load the one that comes first on its list of acceptable directory index filenames. For example, `default.htm` will always load before `index.htm`. To avoid this issue all together, you can create an `.htaccess` file that specifies the index filename you want to use for the directory (your instructions will override the server setting).

**For more information:**

Visit the following online resources:

*Redirect or Symbolic Link?* by Jennifer Walsh.

<http://hotwired.lycos.com/webmonkey/97/13/index4a.html?tw=backend>

# Chapter 2: Authenticating Users

You can set up your website to restrict access to only those people that authenticate themselves with the valid username and password you assign to them. For example, if your website is commercial, you might want to create a special area—called an *extranet*—reserved for content applicable to only those users affiliated with one of your clients. Or you may want to allow specific users to download, upload, or delete files to your webspace; in this case, you would create FTP (file transfer protocol) accounts to allow them this special privilege.

## Protecting directories

A *protected directory* is one which contains an *access file* specifying the users you have set up with rights to access the directory. The access file contains special instructions that the Apache server processes first, before loading the index page. In order to be recognized as the access file for a directory, a file must be named *.htaccess*—a dot (.) followed by the word “htaccess,” in lowercase and with no extension. Dot files are hidden files; they won’t appear in your File Manager, but will be shown when listing directory contents over an FTP, SSH or SCP connection.

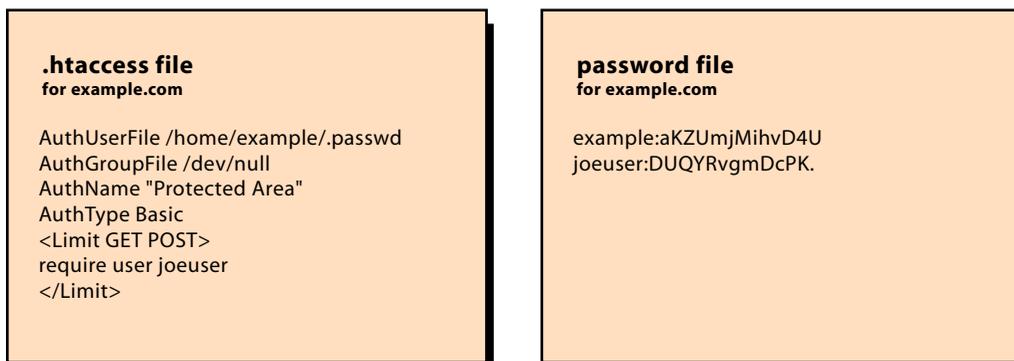


Figure 2: *.htaccess* file and its associated password file (with encrypted passwords)

Your control panel includes a Protect Directories feature that simplifies the creation of *.htaccess* files, and their corresponding password files (the non-public file that stores the valid usernames and passwords which can be used to access the directory).

### To protect a directory:

- 1 Click the Protect Directories icon in your control panel.

If you do not see this icon in your control panel, you will need to upgrade to a package that includes the feature..

- 2 Choose the directory you want to protect.
- 3 Enter a userid and password to whom you want to provide directory access.

#### 4 Click Submit.

A .htaccess is automatically generated by the system and placed in the root level of the current directory. The user specified will have access to the current directory and any subdirectories therein.

*Note: If you want a subdirectory of a protected directory to allow (or deny) different user access than its parent directory, simply use the file chooser to create a new .htaccess file with different user specifications.*

#### **For more information on using .htaccess files to protect directories:**

*Keep Your Secret Plans Hidden (with Authentication)* by Kristin Windbigler.

<http://hotwired.lycos.com/webmonkey/html/97/08/index2a.html?tw=backend>

## **Managing FTP user accounts**

Your control panel includes an *FTP User Manager* tool that allows you to add FTP users to assist you in the maintenance of your website. When you add a new user, you assign her username, password and starting directory. You also assign her disk space quota, which cannot exceed a value 5MB less than the disk space quota of the website itself. The FTP User Account Manager also allows you to change passwords and delete users, too.

#### **To open the FTP User Manager:**

Click the FTP User Manager icon in your control panel. If you do not see this icon in your control panel, you will need to upgrade to a package that includes the feature.

# Chapter 3: Managing Files

Your control panel provides two file management tools: a *File Manager* for working with specific files or directories, and an *Archive Manager*, which you can use to backup or restore your website, or compress files to conserve disk space.

If you have a digital certificate on your domain, you can use the File Manager to transfer files securely; simply log into your control panel using secure http (e.g., <https://yourdomain.com/menu>). Optionally, you can use an SSH client to manage your files. For more information, see “Chapter 4: Working Securely.”

## Performing basic file maintenance

The File Manager tool allows you to create, edit, rename, or delete files and directories. It displays the permissions set for each file, and also allows you to change the way items are sorted.

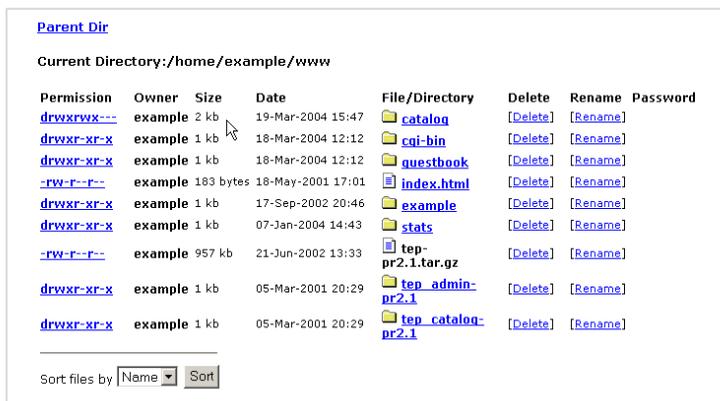


Figure 3: File Manager (detail view)

### To open File Manager:

Click the File Manager icon in your control panel. If you do not see this icon in your control panel, you will need to upgrade to a package that includes the feature.

## Archiving

The Archive Manager contains utilities for compressing files and extracting them. When archiving, you can choose to save the output as a Windows-compatible ZIP file or a UNIX “tarball” (a UNIX format similar to ZIP—only without the compression). You will find this utilities useful for backing up your website and, if necessary, restoring it.

### To open Archive Manager:

Click the Archive Manager icon in your control panel. If you do not see this icon in your control panel, you will need to upgrade to a package that includes the feature.

# Chapter 4: Working Securely

When you use File Manager or FTP to transfer files, the information you send and receive is *unencrypted* (in plain text) and, as such, is vulnerable to *wire sniffers* (people that monitor the internet in hopes of harvesting a valid username and password combination). To connect to your web server securely, you set up an *SSH connection* to it.

## Setting up SSH (Secure Shell) access

*SSH (Secure Shell)* is a program that allows you to securely log into a remote computer over a network, for example, the internet. There is only one SSH account on your domain; the username and password for it are the same as what you use to log into your control panel. There are two things you need to decide before you can enable SSH on your domain:

- the public IP addresses of the computers you want to connect from.
- the method of authentication (RSA or username/password).

Once you have determined this information, you can download and install an SSH client.

## Determining the public IP address of a computer

The *public IP address* of a computer is the address which uniquely identifies it on the internet. All IP addresses are unique with the exception of these four “non-routable” blocks:

- 10.102.0.35 (reserved for your local machine).
- 10.0.0.0 -> 255.255.255 (reserved for your LAN).
- 172.16.0.0 -> 172.31.255.255 (reserved for your LAN).
- 192.168.0.0 -> 192.168.255.255 (reserved for your LAN).

### To determine the public IP address of your computer:

If you are not sure what your public IP address is, there are many websites available that can tell you. One of the most convenient is [ipchicken.com](http://ipchicken.com). Simply go to the URL, and note the IP address shown.



Figure 4: IP Chicken website (your IP will be different than the one shown above)

## Using RSA authentication

Most SSH clients (for example, PuTTY) can create an RSA key for you (a string of random characters that becomes your *private key*). When you authenticate yourself with RSA, you do not need to enter a password. Although this is convenient, you should be diligent about logging off (or locking your screen) when you are away from your computer to prevent other people from accessing your account.

## About SSH clients

An SSH client is an alternative to establishing an SSH connection through the command prompt; SSH clients provide such things as color coding and auto-completion of file names and directory names. There are a number of free SSH clients available at:

[freessh.org](http://freessh.org)

One of the most popular is called *PuTTY*.

### To set up SSH:

- 1 Fax or send a hard copy of your driver's license, passport or other photo ID to our Customer Service department. We will then enable the installer tool in your control panel.

*Note: If you do not see this icon in your control panel, you will need to upgrade to a package that includes the feature.*

- 2 Click the SSH icon in your control panel.

- 3 If you want to use RSA authentication, paste your private key into the input field and click OK; to use your control panel password, simply click OK.

- 4 Enter the IP addresses from which you want to connect to the web server. Click OK.

### To establish an SSH connection with PuTTY:

- 1 Download the PuTTY executable.

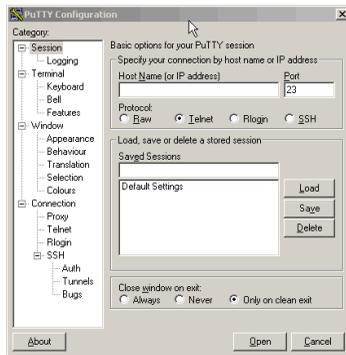
*Note: PuTTY does not need to be installed; you simply double-click the executable to launch the program.*

The PuTTY configuration screen is shown.

### For more information on SSH:

*The Secure Shell FAQ*

<http://www.employees.org/~satch/ssh/faq/>



- 2 Enter the host name (e.g. www.example.com) or IP address of your domain.
- 3 Click SSH.
- 4 Click Open.

The following dialog may display:



- 5 Click Yes.

A shell window. At the prompts, enter your control panel username and password.

## Using SCP (Secure Copy)

Establishing SSH on your domain also enables the use of *SCP (Secure Copy)*. SCP clients allow you to perform tasks visually, using a drag-and-drop feature to securely transfer files between the web server and a remote machine. Many SCP clients emulate Windows conventions and look-and-feel. *WinSCP* is one such application and, like PuTTY, WinSCP is a free download:

<http://winscp.sourceforge.net/eng/download.php>

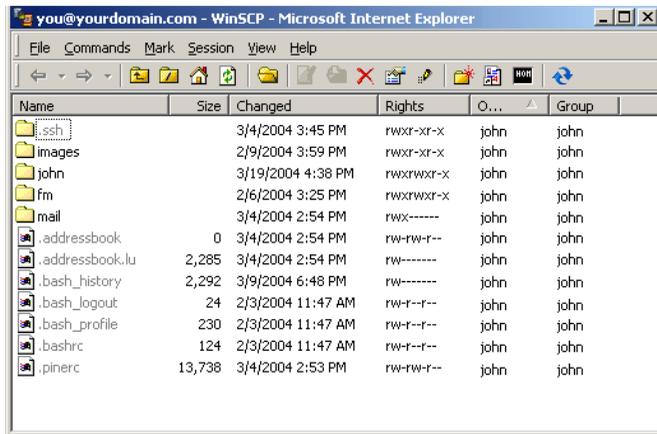


Figure 5: WinSCP user interface

### To set up WinSCP:

- 1 Download WinSCP.
- 2 Install and launch the program.
- 3 Click the New button.
- 4 Enter the host name or IP address of your domain.
- 5 Enter the username and password for your control panel.
- 6 Click Login.

# Chapter 5: Branding Your Web Presence

Applicable to FastWebServer resellers only.

Effective websites—be they commercial or personal—have one thing in common: solid branding. While your logo, color scheme, layout, font choices and content are all essential components of your web presence, there are two other (often overlooked) things you can do to strengthen your branding even more. You can use *virtual name servers* and employ custom *error handlers*.

## Using virtual name servers

Your domain's *name servers* are computers (servers) which map your domain name to an IP address (a number) and provide this information to other computers on the internet upon request. The DNS (Domain Name Service) record for your domain specifies two name servers: a primary server and a secondary server. The secondary server is a backup computer which is used if the primary server is down.

For example, if *awesome-hosting-company.com* handled your DNS, its name servers might be:

```
ns1.awesome-hosting-company.com
```

```
ns2.awesome-hosting-company.com
```

Some technically-oriented visitors to your website may use a WHOIS service to find out what your name servers are. If you do not want to expose this information to the outside world, you use *virtual name servers*. A *virtual name server* maps to an actual name server and can be named whatever you wish. For example, if your domain name is *guru-4-hire.com*, your virtual name servers might be:

```
ns1.guru-4-hire.com
```

```
ns2.guru-4-hire.com
```

Using your domain name as the basis for your virtual name servers is a branding opportunity that is easy to take advantage of.

### To use virtual name servers:

- 1 Click the Virtual Name Server icon in your control panel.

If you do not see this icon in your control panel, you will need to upgrade to a package that includes the feature.

- 2 Enter a primary name server and a secondary name server.

- 3 Click Install.

## Adding user-friendly error handlers

If a visitor's attempt to view a page on your website fails, the default result is the server generating and sending an error page, which is then displayed in her browser. These default error pages are not terribly attractive—consisting of an error code and a cryptic description of what went wrong in unstyled HTML—but they are easy to

replace with custom *error handlers*. Since an error handler can be any page you wish, it is easy to base an error handler on the same template you used to build your website (e.g. same navigation bar, same text style, etc.), thereby ensuring that your branding survives, even in the event of an error.

## Understanding Error Codes

Errors are associated with the client (4xx) or the server (5xx). There are eight error codes:

- 400 | Bad Request
- 401 | Authorization
- 403 | Forbidden
- 404 | Requested URL not found
- 405 | Method Not Allowed
- 408 | Request Timeout
- 500 | Internal Server Error
- 503 | Service Unavailable

You can configure an error handler for each one of these codes (or simply use the same error handler for all codes).

### To add an error handler:

- 1 Click the Error Manager icon.

If you do not see this icon in your control panel, you will need to upgrade to a package that includes the feature.

- 2 Click URL from the drop-down list.
- 3 Enter the URL information for the page or select a page from your home directory.
- 4 Click Apply Changes.

*Note: If you have chosen to install FrontPage extensions on your domain, you will need to use the FrontPage method for adding error handlers; our Error Manager tool (and the other tools that write .htaccess files) only works when FrontPage extensions are not present on your domain.*

### For more information on error handlers:

*The HTTP Error 404 Antidote* by Paul Adams

<http://hotwired.lycos.com/webmonkey/02/40/index4a.html?tw=backend>

Please note that Branding your Web Presence is only applicable to FastWebServer resellers.

# Chapter 6: Reviewing Website Statistics

When a web server receives a request for a document from a browser, it responds by attempting to return the document (along with any inline objects such as images, flash movies, audio files, etc.) and logs a record of the transaction. The *server log* is a raw text file which records each and every server response. You use a *log analysis* program to create and view reports based on the data in your server log. Your control panel includes two such programs: the *Site Statistics Tool* and *Urchin*.

## Using the Site Statistics tool

The Site Statistics tool interface provides basic access log information, including:

- total page hits
- browser types
- client domain
- referring URL
- unfound pages

The user interface of the Site Statistics tool consists of the report window (which displays tables, bar columns, pie charts, etc.) and a small popup window which you use to load a new report.

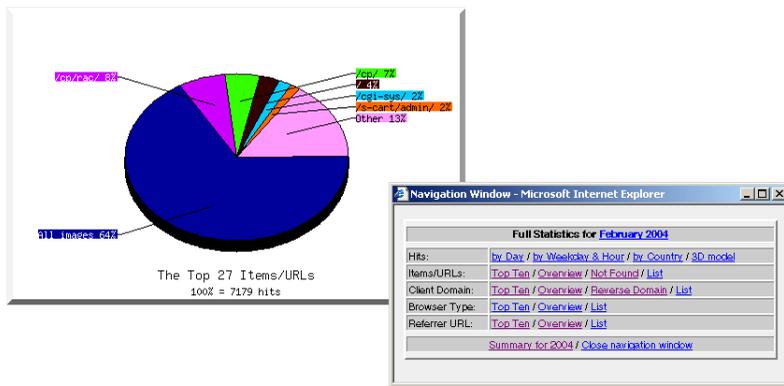


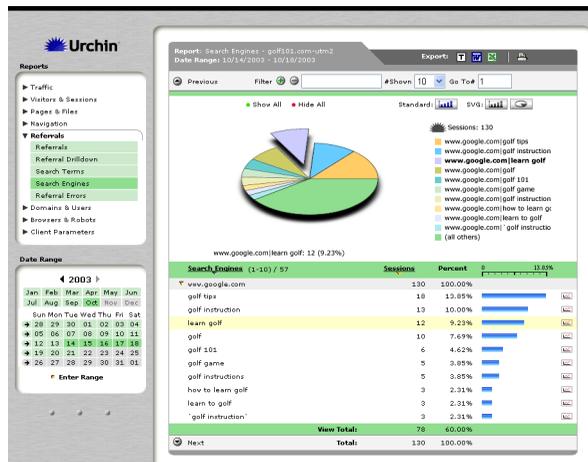
Figure 6: The Site Statistics tool report window and popup navigation box.

### To use the Site Statistics tool:

Click on the Site Statistics icon in your control panel. If you do not see this icon in your control panel, you will need to upgrade to a package that includes the feature.

# Implementing Urchin

Urchin is a sophisticated web analytics software that uses both log files and cookie information to capture visitor parameters and provide detailed and highly accurate reports. Charts and graphs are rendered in SVG (Scalable Vector Graphic) format, and can be easily exported for use in common office applications such as Microsoft PowerPoint.



## To install Urchin:

Click the Urchin icon in your control panel. If you do not see this icon in your control panel, you will need to upgrade to a package that includes the feature.

## For more information on using Urchin:

Visit the support section of the Urchin website at <http://www.urchin.com/support/>. Here you will find links to an HTML help system, downloadable PDFs and FAQs; you can also sign up an Urchin email newsletter. We have also published our own high-level reference guide (in PDF) format; to access it, click the "Urchin Documentation" link located on the Urchin main menu.

# Chapter 7: Using Web Authoring Tools

Web authoring tools are applications you use to create, manage and publish websites. The most popular ones have WYSIWG (“what you see is what you get”) interfaces that allow non-developers to build web pages visually, with little to no experience in hand-coding. This chapter provides some tips and techniques on using three popular web authoring tools Macromedia Dreamweaver MX, Adobe GoLive CS and Microsoft Frontpage 2000. It also highlights the different terminology each application employs to reference common website structure concepts.

## Macromedia Dreamweaver MX 2004

The Dreamweaver help system includes a tutorial on how to publish a website to a remote location, in this case, the host server for your website. You can find this tutorial by selecting *Help > Quick Site Set up* in Dreamweaver.

When you need to update your website using Dreamweaver, you create two identical directory structures—one on your local machine, the other in the web root directory of your webspace—and use Dreamweaver to keep both instances synchronized. For information on the structure of your web server directory, see “To log into your control panel:” on page 1.

## Understanding Dreamweaver terminology

Dreamweaver uses the word *site* in the following ways:

**website** pages on a web server, viewed by a visitor using a web browser.

**remote site** files on a web server (web pages, images, scripts, etc.) that make up a website, from your point of view rather than a visitor’s point of view.

**local site** files on your local disk that correspond to the files in the remote site.

## Using Dreamweaver to develop your website

If you choose to use Dreamweaver to develop and maintain your website, keep the following points in mind:

### Do not use an XML character encoding declaration in the page header

Our web servers parse all pages as PHP with the *short\_tags\_open* directive turned on. This means that you are free to embed PHP code in your pages (without having to use the PHP file extension) and, further, that you can trigger the PHP parsing engine with either a full opening tag (`<?php`) or a short opening tag (`<?`).

However, this convenience requires you to do some page editing if you choose to author a valid XHTML document that uses a character encoding other than the default UTF-8. In this situation, Dreamweaver inserts an XML declaration at the top of your document. It will look something like this:

```
<?xml version="1.0" encoding="iso-8859-1"?>
```

A document with this XML declaration will cause a PHP parsing error on our servers because the tag used to open the declaration is read as a PHP short tag. To correct for this, remove the XML declaration from your file, or set the character encoding with a meta tag instead.

## Adobe GoLive CS

The Adobe GoLive CS help system includes a tutorial on how to publish websites. It provides details on a sophisticated synchronization feature that lets you control what happens to each file when you are reconciling local and remote sites. These options include:

- publish never
- publish always
- publish if referenced

## Understanding GoLive terminology

GoLive uses the term *publish server* to mean the web server that is hosting your website.

## Using GoLive to develop your website

If you choose to use GoLive to develop and maintain your website, keep the following points in mind:

### **Be careful when synchronizing.**

GoLive allows you to set a Never Publish option (meaning that a web file or subdirectory will never be deleted even if it is in a directory you have chosen to publish). If you forget to set this option, GoLive will automatically delete—without prompting before doing so—any item that exists in one location (local or remote) but not the other.

### **WebDAV is not supported by our servers.**

WebDAV stands for *Web-based distributed Authoring and Versioning* and is a group of extensions to the HTTP protocol. It allows you to collaborate with others editing and managing files on a remote web server. Our servers are not configured to support WebDAV.

## Microsoft FrontPage 2000

Microsoft FrontPage 2000 ships with a *Getting Started* book; there are also many FrontPage resources on the Microsoft website ([www.microsoft.com](http://www.microsoft.com)). One major difference between FrontPage and other web authoring tools is that certain features will not work unless you have installed *FrontPage extensions* on your domain.

These features include:

- Setting permissions.
- Locking files.
- Automatically updating hyperlinks when you rename files.
- Automatically generating a list of hyperlinks.
- Incorporating database access.

## Understanding FrontPage 2000 terminology

FrontPage 2000 uses the word *web* in the following ways:

**web** a collection of pages, images and other items stored on a Web server.

**subweb** a web that is set up specifically for a select group of users (with certain rights and privileges on the files contained in the subweb).

## Using FrontPage 2000 to develop your website

If you choose to use FrontPage to develop and maintain your website, keep the following point in mind:

### **Do not use Protect Directories if FrontPage Extensions are installed.**

If FrontPage extensions have been installed on your domain, FrontPage uses its own version of an .htaccess file to protect directories. For this reason, you should not use the Protect Directories tool when maintaining a website with FrontPage; if you need to protect a directory, use the directory protection features in FrontPage.

# Chapter 8: Making Your Site Searchable

Along with an intuitive structure and a persistent navigation mechanism, a search capability allows your visitors to find the information they need quickly and easily. In recognition of this, we offer *htdig*, an open-source site search tool. Deploying *htdig* is very straightforward: you simply specify the areas of your website you want to make searchable, *index* them (generate a database of keywords that links search terms to matching pages), add a search form to your website and configure the *htdig* results page.

## Installing *htdig*

The installation of *htdig* is a simple point-and-click operation.

### To install *htdig*:

- 1 Click the *htdig* icon in your control panel. If you do not see this icon in your control panel, you will need to upgrade to a package that includes the feature.
- 2 Click the Install *htdig* button.

An *htdig* folder is added at the root level of your website (e.g. `www.mydomain.com/htdig`). This folder contains all the images, templates and executables necessary to deploy *htdig*.

```
htdig files  
in /home/mydomain/mydomain-www/htdig  
  
../htdig/bin  
../htdig/common  
../htdig/conf  
../htdig/db  
../htdig/doc  
../htdig  
*.gif  
*.png  
search.html
```

Figure 7: *htdig* directory structure

## Configuring htdig

Our htdig installer automatically generates a configuration file that provides a site-wide search capability on your domain; unless you want to customize how searches are performed (e.g., specify directories and/or files you want htdig to exclude), you don't have to do anything special to the configuration file; you can begin using htdig immediately.

Should you desire to customize how htdig indexes pages—or where it saves certain work files—you may edit any of the following variables:

variable	default value
database_dir	/home/mydomain/mydomain-www/htdig/db
start_url	http://www.mydomain.com/
limit_urls_to	\${start_url}
exclude_urls	/cgi-bin/ /stats/ .cgi .pl
bad_extensions	.wav .gz .z .sit .au .zip .tar .hqx .exe .com .gif .jpg .jpeg .aiiff .class .map .ram .tgz .bin .rpm .mpg .mov .avi .css
maintainer	mydomain@mydomain.com
max_head_length	10000
max_doc_size	200000

Explanations of each variable are in the configuration file itself:

```
/home/mydomain/mydomain-www/htdig/conf/htdig.conf
```

### To configure page indexing options:

- 1 Open the htdig configuration file in your favorite text editor.
- 2 Edit the desired variables.

## Setting up search and result pages

Before you can deploy htdig, you encourage to edit its page templates to conform to the look-and-feel of your website. Those page templates include:

**../htdig/search.html** The default search page with option lists to control sort order, boolean settings, and format (long or short). If you prefer, you may simply add a form to one of your existing website pages to interface with the htdig database.

**../htdig/common/footer.html** The template that formats the page previous, page list and page next links at the bottom of the search results page.

**../htdig/common/header.html** The template used to render the results page when matches are found.

**../htdig/common/long.html** The template used to format long result returns. Long results include page titles and snippets of the body text where matches were found, with matches shown in bold.

**../htdig/common/nomatch.html** The template used when a search does not find any matching documents.

**../htdig/common/short.html** The template used to format short result returns. Short results only show page titles.

**../htdig/common/syntax.html** The template used to display an error message when the user enters a search string that does not follow the defined htdig search syntax.

Each one of these page templates include htdig variables which appear in the following format:

```
$(VARIABLE)
```

You are free to change where these variables appear within a given template (just be careful not to edit them in anyway).

*Note: As our servers parse all documents as PHP, you are free to use PHP include files within (or in lieu of) the default htdig templates.*

### To add a search form:

Do one of the following:

- Edit search.html as desired, and add the page to your website at an appropriate location.
- Copy the following text into the page(s) where you want the search form to appear:

```
<form method="post" action="/cgi-bin/htsearch">
  <input type="hidden" name="config" value="htdig">
  <input type="hidden" name="restrict" value="">
  <input type="hidden" name="exclude" value="">
  <input type="text" size="20" name="words" value="">
  <input type="submit" value="Search">
</form>
```

### To customize the results page:

Edit the relevant htdig templates listed above.

## Indexing your website

When htdig performs a search, it does not search the text of each file within the search range; it queries the database of keywords generated when you last *indexed* your website. This index of keywords does not include html elements (<>) nor does it include the words specified in the *bad words* file (../htdig/common/badwords). You can index your website as often as you wish (although htdig will automatically do it for you once a week).

**To index your website:**

- 1 Click the htdig icon in your control panel.
- 2 Click the *Re-index Your Site* link.

**To edit the bad words file:**

Open the bad words file (`../htdig/common/badwords`) in your favorite text editor; add, revise or delete the words that you want htdig to skip when indexing your website.

# Chapter 9: Other Features

## Scheduling cron jobs

There are many administrative tasks associated with the upkeep of your domain—deleting temporary files to conserve disk space, backing up your website, and sending communications to your clients, to name but a few. Although you could execute these tasks manually, it is more efficient to automate them with *cron jobs*.

A *cron job* is a *daemon* (pronounced DEE-mun or DAY-mun), a program that runs in the background waiting for a certain event to occur. Once the event occurs, the daemon executes the task you have programmed it to perform and then goes “back to sleep,” waiting for the event to occur again.

*Note: Different operating systems call the daemon mechanism by different names. For example, Windows operating systems use the term service.*

Your control panel includes a Cron Manager utility that enables you to manage cron jobs through a GUI (as opposed to directly editing the configuration files that define the associated events for each daemon).

### To schedule a cron job

- 1 Write the daemon you want to schedule.
- 2 Click the Cron Manager icon in your control panel. If you do not see this icon in your control panel, you will need to upgrade to a package that includes the feature.
- 3 Define the event(s) that will trigger the cron job.

*Note: Daemon coding (the writing of a daemon script) is beyond the scope of this guide.*

## Redirecting

There come a time when you need to restructure your website to meet the needs of your audience. For example, if you run an online business and upgrade your website to offer online shopping, you might want to change the location of a products page from *yourdomain.com/products* to *yourdomain.com/shopping*. To ensure that your existing customers (who may have bookmarked the old product page location) are not greeted with a Page Not Found error, you set up the old page location to *redirect* to the new page location. *URL redirection*, like directory protection, is accomplished through an *.htaccess* file. Your control panel includes a utility for generating this file.

### To redirect a page:

Click the *Redirect URL* icon in your control panel and follow the instructions. If you do not see this icon in your control panel, you will need to upgrade to a package that includes the feature.

*Note: You cannot use the URL Redirect tool if you have FrontPage extensions installed on your domain; instead use the URL direction feature offered in FrontPage.*

## Implementing e-commerce with CartXpress

*CartXpress, powered by osCommerce* is our implementation of the open source, e-commerce utility, *osCommerce*. CartXpress provides an intuitive interface you use to set up, populate and manage an online product catalog.

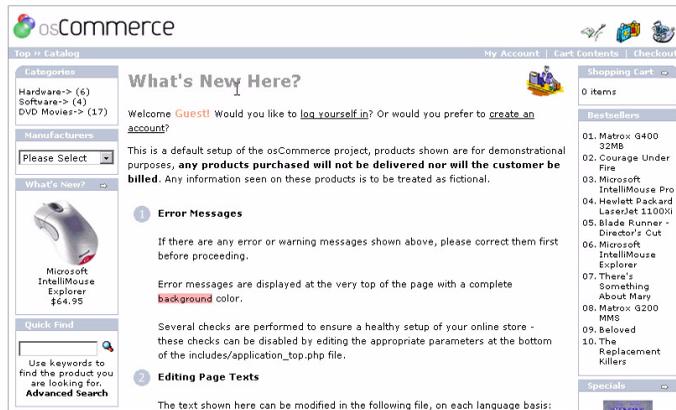


Figure 8: osCommerce (detail view)

CartXpress is built using PHP and MySQL, and incorporates a number of include files to allow for customization of its interface. You can edit these files directly or through the CartXpress interface; they are stored in the catalog directory at the root level of your website.

*Note: You are strongly encouraged to install an SSL certificate on your domain before installing CartXpress and offering an online transaction capability to your customers. If you use CartXpress without an SSL certificate, the financial information of your customers (e.g. their credit card numbers) will be transmitted in an unencrypted form, making the information extremely vulnerable to wire sniffers.*

### To install CartXpress, powered by osCommerce:

Click the osCommerce icon in your control panel. If you do not see this icon in your control panel, you will need to upgrade to a package that includes the feature.

### For more information on using CartXpress, powered by osCommerce:

Visit the osCommerce website at <http://www.oscommerce.com>. As an osCommerce user (also known as a *Store Owner*), you can become a member of the community forum, subscribe to a mailing list, and review (or contribute to) the collaboratively developed documentation. In addition, we have published our own CartXpress, powered

by osCommerce User's Guide (in PDF) which you can download from the main menu of the tool.

# Online Resources

The external resources cited within this guide, along with some other helpful online resources, have been consolidated in the list below:

## e-commerce

*The Official osCommerce Website*

<http://www.oscommerce.com/>

## .htaccess files

*Redirect or Symbolic Link? by Jennifer Walsh*

<http://hotwired.lycos.com/webmonkey/97/13/index4a.html?tw=backend>

*The HTTP Error 404 Antidote by Paul Adams*

<http://hotwired.lycos.com/webmonkey/02/40/index4a.html?tw=backend>

## log analysis

*The Official Urchin Website*

<http://www.urchin.com>

## secure shell

*The Secure Shell FAQ*

<http://www.employees.org/~satch/ssh/faq/>

## web authoring tools

*Adobe GoLive CS*

<http://www.adobe.com/products/golive>

*Macromedia Dreamweaver MX 2004*

<http://www.macromedia.com/software/dreamweaver/>

*Microsoft FrontPage 2000*

<http://www.microsoft.com/frontpage/>