



## Web Classifieds Manual

**Version: 2.2**

Revised: November 25, 2000

Pathfinders Software  
1755 O'Farrell, Suite 905  
San Francisco, CA 94115 USA

Sales: (415) 292-4935  
Fax: (415) 292-4913

[sales@pfinders.com](mailto:sales@pfinders.com)  
[support@pfinders.com](mailto:support@pfinders.com)

# Table Of Contents

<b>Overview .....</b>	<b>3</b>
Function List.....	5
<b>Installing the Web Classifieds .....</b>	<b>6</b>
Quick Install For Advanced System Administrators.....	6
Editing The Script.....	7
Create categories.txt.....	7
Create Required Directories.....	8
Sample FTP Upload Session.....	8
Help Figuring Out Basedir .....	8
<b>Customizing The Ad Submission Process .....</b>	<b>9</b>
<b>Categories Both Sorted and Unsorted.....</b>	<b>10</b>
Example of Drop Down Box.....	10
<b>Purging Expired Ads.....</b>	<b>11</b>
Automatic Nightly Purge.....	11
Interactive Purge As Administrator .....	11
<b>Important Template Tags.....</b>	<b>11</b>
<b>Next and Previous Buttons.....</b>	<b>12</b>
<b>Table Of Contents File .....</b>	<b>12</b>
<b>Synchronizing With Missing Ads .....</b>	<b>13</b>

# Overview

## *The Web Classifieds*

### **The Basics**

This system gives your web server the ability to manage classified ads. It is written in Perl and full source code is provided due to the nature of Perl. It will run on a Unix or Windows NT system. If you choose to run it on NT you must download the Perl language from [www.activestate.com](http://www.activestate.com)

Below is a feature overview.

### **No Database Required**

Each ad is kept in its own HTML file. There is also a table of contents file used to manage them. Administrators and users may create, edit and delete the ads with a web browser.

### **Expiration Dates, Purging and Renewing**

Each ad has an expiration date and ads can be purged when they expire. The users may select their own expiration date from a drop down selection (30 days, 60, 90, etc.). A purge function can be run interactively by the administrator or as a background nightly cron job. The purge function can be run as a test (dry run) or for real. Also, purged ads can be moved to a purge directory or they can be deleted forever. During the test purge, you may choose to renew an ad rather than purge it.

If ads are in the purge directory, the administrator can renew them or delete them from a web form.

### **Free Ads or Pay Ads**

You may setup a free ads site or pay ads site. Users submitting to a pay ad site do not see their ads immediately after they post them. The administrator must approve the ad using the "approve ad" web form. There is no credit card validation in this version. You will have to run their credit card by hand before approving the ad.

Users can edit their ads at any time. A users will self assign a password to each ad they submit. A user has the ability to delete his ad as well. Besides this, there is a master password that the administrator can use to edit any ad.

### **Viewing Ads**

Ads can only be viewed in date order (latest ads first). If viewing by category they are viewed in date order as well. If an ad is renewed, it moves to the top of the list. If viewing all ads at the same time (latest function) you get to see what new ads have come in from all categories. It even tells you what category it came from to drill down to its related ads.

### **Categories**

This system supports up to 999 categories. All the names of the categories are kept in a file called categories.txt. This system uses the category number in the ad id. So, once its running only append new categories onto the end of the list. Otherwise the category numbers will shift. Categories are available in sorted form or unsorted form.

## **Keyword Search**

You may search through the ads by keyword. The results of the search are ranked by relevancy. You may search a specific category or all categories.

## **Administrator Customization**

Each web page displayed is really just a template that the administrator sets up. You can have a single template or a custom one for each function, such as search or place ad, etc.

Point the template to the home page for any function you don't want users access to.

## **HTML Extensions (templates)**

In order to show data in the right spot, the templates use extensions to HTML as place holders for data such as: <!--%adnumber--> or <!--%category\_links-->

So, this system will fill in the value of the current ad number in your web page or give a column of clickable links to all the categories.

The extensions that are available includes all form field names including ones you make up yourself. So, you can display form data on the resulting web page right after submission. Think of it as data pass through from one web page to the next.

## **Ad Numbering**

All ads are assigned a number. This system will uniquely assign up to 1 million ads before the numbers wrap around to 1 again. The ad number has the category number as a prefix. This gives a nine digit complete ad number.

## **On The Fly Pages**

This system can generate all web pages required for normal operation on the fly using a single template. This function can be overridden on an individual function basis. So, if you wanted a static category page but left all the other pages generated on the fly, its easy to set up.

## **Automatic Email Monitoring**

This system has the ability to automatically email the administrator when a new ad is created. This way you can monitor content. If you have pay ads, then the submission form will email to you automatically also.

## **Self Diagnosis Of Problems**

This program is able to self diagnose a variety of problems related to improper installation. For instance it can tell you when it does not have write permissions to its directories. It can also tell you if it thinks you have not properly specified its base directory. It can even warn you that it has no categories to work with.

## **Interative Unix Command Line Interface**

If you have telnetted in to your Unix system you can test this script without a web browser. Just enter the URL GET parameters on the command line separated by spaces such as

```
classified.cgi function=listcat
```

## Function List

Function Name	Script URL codes *
Place New Ad (Display Form)	?function=form_new
Place New Ad (Submit Form)	?function=new
View Latest Ads From All Categories	?function=latest
View Ads In A Specific Category	?function=viewcat&category=3
Keyword Search (Display Form)	?function=form_search
Keyword Search (Submit Form)	?function=search&keywords=baseball+cards
Edit An Ad (Display Form)	?function=form_new
Edit An Ad (Submit Form) allows deletion	?function=new
List Categories	?function=listcat
Display Main Menu	?function=form_menu
Administrator Login (Display Form)	?function=admin
Administrator Menu (Submit Form)	?function=admin&password=friday
Approve Ads (Display Form)	?function=form_approve&password=friday
Approve Ads (Submit Form)	?function=approve&password=friday
Display Ads Requiring Approval	?function=approve_list&password=friday
Renew Ad (Display Form)	?function=form_renew&password=friday
Renew Ad (Submit Form)	?function=renew&password=friday&
Purge Ads	?function=purge&password=friday
Purge Test	?function=purgetest&password=friday
Display Purge Directory (Display Form)	?function=purge_dir&password=friday
Purged Renewal (Submit Form)	?function=purge_renew&password=friday&id=123
Purged Delete (Submit Form)	?function=purge_delete&password=friday&id=123
Debug	?function=debug
Help	?function=help
Synchronize With Missing Ads	?function=sync&password=friday

\* = some function are better called from a POST style operation not the displayed GET style operation such as approving multiple ads at the same time or submitting a new ad form.

# Installing The Web Classifieds

## *Files In The Distribution*

There are 6 files provided in this distribution:

- 1) classified.cgi            ← Use on Unix web server
- 2) classified.pl           ← Use on NT web server
- 3) template.html
- 4) template2.html
- 5) classified.pdf
- 6) readme.txt

But, you only need 2 to run this system. Either 1 or 2 AND either 3 or 4. The first file classified.cgi is the Perl script itself. The second file classified.pl is the same Perl script but for Windows NT IIS web server. This is the executable program. You must edit the beginning of Perl script you choose. See below for the specifics. But basically you need to configure it to your server and functionality. Do you want pay ads mode or free ads mode?

The second file you need is a template full of HTML. You only need one file. The 3<sup>rd</sup> file on the list above is template.html. It is a simple HTML file and is simple looking. The 4<sup>th</sup> file on the list above is template2.html. You may choose to use this instead. Its more fancy looking and more complicated HTML. If you choose to use it, then upload it AS template.html. Basically, rename it from template2.html to template.html on your web server. You can switch back and for to see the different look and feel you get. It might inspire you to write your own!

The 5<sup>th</sup> and 6<sup>th</sup> files are documentation. They are not needed for execution, just reading for you.

So, there are only really two files needed to run this system, initially. But, don't worry, more files will get created automatically, once its up and running.

## **Quick Install For Advanced System Administrators**

- 1. Edit The classified.cgi script (or classified.pl on NT) – adjust the User Defined Section (basic group) to your liking.**
- 2. Create a file called categories.txt using a text editor like notepad or vi. Place one category per line in this file.**
- 3. Create directories on your web server: classifieds, classifieds/ads, classifieds/purge and make sure there is write permissions for the “ads” and “purge” directories for the web server. The script will tell you if its not correct when you run it.**
- 4. Upload in ascii mode: classified.cgi, template.html and categories.txt into the classifieds directory. Make sure classified.cgi is executable (or classified.pl on NT).**
- 5. Test it with: [www.yourdomain.com/classifieds/classified.cgi](http://www.yourdomain.com/classifieds/classified.cgi)**
- 6. If upgrading from an older version, run the sync function from the administrators menu. That's it!!**

If you have any trouble on Windows NT web servers, set \$allow\_images = 0

# Editing The Script

Before FTP'ing the files to your web server you must edit some parameters inside the classified.cgi script. There is a User Defined Section broken up into three groups: Basic, Advanced and Templates. Do not edit lines outside of this section. You only really need to look at the Basic group.

## Basic Group:

Parameter	Examples	Meaning
basedir	"/home/domain/htdocs/classifieds" "F:/web/domain/html/classifieds"	Full directory path on web server to where script is kept. Notice the second example is for Windows NT. Its fine if the slashes are forward.
baseurl	"http://www.domain.com/classifieds"	The URL path to where the script is kept.
password	"friday"	Administrator password. It can be used anywhere a password is prompted for in the web forms.
pay_ads	0 1	1 = pay ads 0 = free ads
new_monitored	0 1	1 = Send email to administrator for each new ad. 0 = Do not send an email to administrator for each new ad.
allow_images	0 1	1 = allow users to upload an image with their ad 0 = turn off this feature
delete_purged	0 1	1 = delete ads on a purge of expired ads. 0 = move ads to purge directory on a purge of expired ads. Requires purge directory exists with write permissions.
admin_email	"bsmith\@yourdomain.com"	Email address to send notification that a new ad has been created. Notice the backslash before the @ symbol. This is required for Perl scripting. Do not forget it.
smtpserver	"mail.yourdomain.com"	The name of your mail server

## Create categories.txt

Use an editor like notepad (on Windows) or vi (on Unix) to create all your categories in a file called categories.txt. You will upload this file to the same directory you keep classified.cgi.

Enter one category per line. Keep in mind that the Classifieds system will use these categories numerically. This means that category one, is the first line, category two is the second line. If need to add new categories later, add them to the end. If you try and insert one in the middle, you will have ads in the wrong categories. It will be a mess.

Luckily, you can tell the system to sort them when it displays them. So, order will not matter in the end.

## Create Required Directories (Folders)

You should create these directories on your web server:

```
classifieds
classifieds/ads          ← write permission required
classifieds/purge       ← write permission required if $delete_purged = 0
```

Place `classified.cgi` and `template.html` in the `classifieds` directory. The `purge` directory is optional if you plan on not saving expired articles, but instead letting them get deleted automatically by the `purge` function.

### ***Important: Write Permissions***

Make sure that the web server can write to the `ads` and `purge` directory. If write permissions are not setup, then the script will complain about it.

## Sample FTP Upload Session

If you are FTP'ing to your web server type:

```
ftp> mkdir classifieds
ftp> cd classifieds
ftp> ascii          ← transferring the Perl script in ascii mode is best, not binary
ftp> put classified.cgi
ftp> chmod 777 classified.cgi    ← makes it executable on Unix web servers
ftp> put template.html
ftp> mkdir ads
ftp> chmod 777 ads             ← Gives full access, but some ftp programs do not support this
ftp> mkdir purge
ftp> chmod 777 purge          ← Gives full access, but some ftp programs do not support this
```

### ***Help Figuring Out basedir***

One way to help you figure out what the `basedir` is supposed to be is to run the script with a special function "debug". So, install `classifieds.cgi` up on the web server and then run it like this:

```
http://www.yourdomain.com/classifieds/classified.cgi?function=debug
```

Look for `SCRIPT_FILENAME`, this will show you the full path to the script. The `basedir` with `classified.cgi` appended to the end is what you will see.

## Customizing The Ad Submission Process

Lets say you would like to have your own special Ad submission form and resulting thank you page. Let's say you have some specific goals in mind:

- You want to have a credit card number field that gets emailed to the administrator
- You want the resulting "thank you" page to be more explanative. Maybe you want an invoice to be displayed?

First, submit a test ad. Make sure the administrator is receiving emails.:

```
http://www.yourdomain.com/classifieds/classified.cgi?function=form_new
```

If not, edit the script, fix the following lines and upload it back to the web server:

```
my $admin_email    = "bob\@jones.com"; # admin email, '\@' required
my $smtpserver     = "mail.yahoo.com"; # enter your mail server
```

Now, use your web browser to display the pages that are currently generated for ad submission. Save them for customization. Click File → Save As and pick some good names for these new html files such as:

```
new.html           ← web page before submission
thankyou.html     ← web page after submission
```

Next, edit the script and put your new names in the Template Group in the User Defined Section:

```
$template{'form_new'}    = "$basedir/new.html";
$template{'new'}         = "$basedir/thankyou.html";
```

Now lets edit the thankyou.html file. Put these lines somewhere in the middle of it:

```
Heading: <!--%heading--><br>
Data: <!--%data--><br>
Adnumber: <!--%adnumber--><br>
Category: <!--%category_name--><br>
Category Number: <!--%category--><br>
Posted: <!--%posted--><br>
Title: <!--%title--><br>
Contact: <!--%contact--><br>
Email: <!--%email--><br>
Keywords: <!--%keywords--><br>
Expires: <!--%expires--><br>
Password: <!--%password--><br>
Description: <!--%description--><br>
```

Now, FTP the 3 files back to the web server:

```
ftp> ascii
ftp> put classified.cgi
ftp> put new.html
ftp> put thankyou.html
```

Now submit a classified ad again and notice your thank you page is being used and how the fields are getting replaced by the actual data. Later you can move the fields around on the page to make it look pretty.

The final step is to place a credit card number on the new .html page. Edit this page and type the following line after the Edit Password line

```
<tr><td>Credit Card Number</td><td><input type="input"
name="credit_card" size=25></td></tr>
```

FTP new.html back up to the web server and try submitting an ad again. This time you will see your new field near the bottom. Also, on the thankyou.html page you will not see the credit card number since we forgot to put <!--%credit\_card--> on the thankyou.html page. But, that might be fine since we rarely want to see our own credit card number so plainly.

During the testing you should have received an email for each ad submission. Notice on the last one, the credit card field has been sent to you. Congratulations, you are now sending credit cards over the open internet in emails. Be careful, it could cause you a liability suit!!

## Categories Both Sorted And Unsorted

When using this templating system, sometimes you will want to see a list of categories. Here are your choices:

<code>&lt;!--%category_links--&gt;</code>	A clickable list of categories. If a user clicks on one of these links, it will take him to the viewcat function and into that specific category. The way it builds the list is to append a   after each link. This creates the vertical column. The column of links is sorted.
<code>&lt;!--%fancy_category_links_unsorted--&gt;</code>	A clickable list of categories in an HTML table. On the left is the category name and on the right is the number of ads currently available in that category. It is left unsorted and in the order found in categories.txt.
<code>&lt;!--%category_links_unsorted--&gt;</code>	See above but unsorted. It is left in the order found in categories.txt
<code>&lt;!--%category_options--&gt;</code>	If this is found within a template it is replaced with the HTML for a drop down box. Specifically only the lines that begin <OPTION>. Just wrap this with a <SELECT> statement and you have a sorted drop down box with all the category names in it.
<code>&lt;!--%category_options_unsorted--&gt;</code>	See above but unsorted. It is left in the order found in categories.txt

### *Example of Drop Down Box:*

```
<select name="category">
<!--%category_options-->
</select>
```

The reason why only the option lines are generated for you and not the entire drop down box is so you can set your own name="category", what if you wanted some other name besides category?

## Important Template Tags

### **<!--%heading-->**

Every page that is generated by this system has a default heading prepared. It is accessed by this tag. When creating your own templates you may use it or not. Sometimes your own web designer will have better wording.

### **<!--%data-->**

This tag has the HTML for the middle of every page. Its important this tag appears on every template. If not, this would be a really dull application. The only reason to leave it out of a template is when you want a page to not change. Such as a thank you page or a default page.

### **<!--%id-->**

Any page that refers to a specific ad number will have this number available in this tag.

### **<!--%category-->**

Any page that refers to a specific ad will have the category number available in this tag. Having the category number helps you build an HTML link to the category such as:

```
href="/classifieds/classified.cgi?function=viewcat&category=<!--%category-->"
```

### **<!--%category\_name-->**

Any page that refers to a specific ad will have the category name available in this tag. Here's a good way to use it in HTML:

```
<h2><!--%category_name--></h2>
```

### **<!--%total\_ads-->**

This is a numeric tag that represents a running total of all the ads in the system that are visible (approved).

### **<!--%last\_updated-->**

This is a date tag that represents the last date that an ad was entered new or approved. It is not updated when an ad is deleted or purged.

## Next and Previous Buttons

You can customize the look of any next and previous buttons that appear on your classifieds. Here's a discussion of the basic concepts involved.

In the default template file called `template.html` you will notice some HTML that looks like this:

```
<table width=100% border=0>
<tr>
<td width=50% align=left><!--%previous--></td>
<td width=50% align=right><!--%next--></td>
</tr>
</table>
```

This is how we implement the next and previous buttons. If the current web page has no need for these buttons, then nothing shows up. So, its safe to put this code near the bottom of all templates.

Inside the `classifieds.cgi` program, in the Templates group, you will notice the button definitions:

```
my $next_page      = "[Next Page]";
my $previous_page  = "[Previous Page]";
```

Lets say you prefer to see arrows instead of text, here's what it would look like:

```
my $next_page      = "<img src=\"arrow_right.gif\" border=0>";
my $previous_page  = "<img src=\"arrow_left.gif\" border=0>";
```

The `\` is required to specify that the quotes should be put into the HTML, and not be interpreted by the program. Its ugly but necessary.

## Purging Expired Ads

Since this system uses dates to determine if ads expire, there must be a way to remove these expired ads.

### Automatic Nightly Purge

The best method of purging is an automatic job that runs at night. On Unix systems this is known as "setting up a cron job". Here is the command line for a cron job:

```
classified.cgi function=purge password=friday 2>/dev/null 1>/dev/null
```

### Interactive Purge As Administrator

The other way to purge is to use your web browser and run the purge by hand. Create a bookmark that points to:

```
http://www.yourdomain.com/classifieds/classified.cgi?function=purge&password=friday
```

Note: When an ad is purged, it is removed from `toc.txt` located in the ads directory. Then, its html file and image file (jpg or gif) are moved to the purge directory. It is safe to delete files from the purge directory by hand but it is not safe to delete them from the ads directory. It is not recommended that you touch any files in the ads directory.

## Table Of Contents File

There is a file managed by this system called toc.txt, the table of contents. This file is updated when a new ad is created, edited, deleted, purged, approved or renewed.

This file should NOT be hand edited. Let the system manage it.

The specific order of the lines in this file tell us which ads are recent and which ads are older. The lines closest to the beginning of the file are recent ads. If an ad is renewed or edited, it gets moved to the front. So, if somebody wants to have their ad appear first in the "View Latest Ads" display, just edit it. It will magically move to the front of the line like it was a new ad.

## Synchronize With Missing Ads

When upgrading from a previous installation, or after you fiddled with the files by hand and have lost the display of some ads. Its time to get all the ads to display properly.

This is why the "synchronize with missing ads" function was created. Its on the administrative menu or you can call it directly with:

`http://www.yourdomain.com/classifieds.cgi?function=sync&password=friday`

### **Warning:**

This function is not to be used without care. It was meant to help fix a problem you might be having. It is also the way to perform an upgrade from a previous installation. If you are using pay ads then **AVOID DOING THIS A LOT**. The reason is that during a sync operation, any ads that are waiting to be approved are automatically approved.