

[FAQ] FAQ Thread (Rev 5)

Source: <http://coding.derkeiler.com/Archive/PHP/comp.lang.php/2005-03/1405.html>

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This is the FAQ thread where the FAQ compilation project goes.

* If you wish to improve the contents, please copy the whole content, fix it and then post it. When posting, please change the revision number (increase by 1) in the subject line.

* If you want to comment, do it without changing the subject line.

* Do NOT add new question and answers here. Add here only after posting it to the separate thread; subject line should begin with "[FAQ]" tag, for example: [FAQ] What is foo?

* Always use www.example.com for example URLs.

PHP installation:

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Q: How to run PHP?

A:

1. Use command line php and pass php file as an argument. Hardly used.
2. Run with an webserver preferably Apache. (Access via browser like <http://localhost/foo.php>)

Q: Where to get PHP?

Q: How to install PHP?

A: Install the webserver first. Apache is available at

<http://httpd.apache.org/download.cgi>

Stable PHP version is available at <http://www.php.net/downloads.php>

Windows users should note that the installer/exe version is CGI alone; for mod_php (aka SAPI), has to download zip version.

Refer:

<http://www.php.net/install>

<http://cvs.php.net/co.php/php-src/INSTALL>

<http://www.php.net/faq.installation>

Q: How to install PHP quickly?

A: XAMPP, a 3rd party provides extensive installation bundle that helps the user to install PHP, MySQL, Apache and many extensions in just one click.

Refer:

<http://www.apachefriends.org/en/xampp.html>

Q: Where to get up-to-date PHP builds?

A:

Windows: <http://snaps.php.net/win32/php5-win32-latest.zip>

Linux: <http://snaps.php.net/php5-latest.tar.gz>

Caveats:

These development versions may not be stable to use in production.

Q: Where to get old PHP versions?

A: <http://museum.php.net/>

Q: When using a PHP function, I'm getting "Fatal error: Call to undefined function xxxx()".

A: This says that the function is not available or not enabled. Using manual find the extension name that this function belongs to.

Windows: Open your php.ini and uncomment that extension dll file (eg, extension=php_curl.dll).

Linux: Compile your php source with that library

Q: Why I'm getting unparsed PHP file in browser?

A: You might not have instructed your Apache to parse PHP files. You have to check httpd.conf

Refer:

<http://www.php.net/faq.installation#faq.installation.processing>

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@todo Grammar. More info?

Error reporting:

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Q: Why I don't get any errors?

A: You might have turned the "display errors" off. Turn it on:

1. By changing 'display_errors' to true in php.ini (May require Apache restart if it is mod_php)
2. Or with the ini_set('display_errors', 1) via script

Refer:

<http://www.php.net/manual/en/ref.errorfunc.php>

http://www.php.net/ini_set

Q: Why certain errors are not displayed?

A: The error reporting level might be low. Set it to higher value; via script error_reporting(E_ALL|E_STRICT)

Refer:

http://www.php.net/error_reporting

Q: What does @ (at-sign) do?

A: @ is an operator, which, when prepended to an expression, suppresses error messages. However the usage is discouraged.

Refer:

<http://www.php.net/manual/en/language.operators.errorcontrol.php>

Example:

```
$x = 'a';  
extract($x);  
@extract($x);
```

URL grabbing:

=====

Q: How do I retrieve a page from a web site?

A: Pass a URL to file() or file_get_contents(). The former returns the contents as an array of lines. The latter returns the same as string.

Example:

```
$html = file_get_contents('http://www.example.com');
```

Q: How do I retrieve a page from a web site that does browser detection?

A: Use ini_set() to change the configuration option "user_agent." This sets the User-Agent header sent by PHP.

Example:

```
ini_set('user_agent', 'Mozilla/4.0 (compatible; MSIE 6.0; Windows NT 5.1)');  
$html = file_get_contents('http://www.example.com');
```

Q: How do I retrieve a page from a web site that requires a cookie?

A: Use stream_context_create() to create a HTTP context with Cookie as one of the headers. Then, if you are coding in PHP 5, pass the context to file() or file_get_contents() as the third parameter. In PHP 4 either function accepts a context, so you need to open the URL with fopen() and retrieve the data a chunk at a time with fread().

Example:

```
$opts = array(  
    'http'=>array(  
        'method'=>"GET",
```

```
'header'=>
    "Accept-language: en\r\n" .
    "Cookie: foo=bar\r\n"
)
);

$context = stream_context_create($opts);
$f = fopen($url, "rb", false, $context);
while($data = fread($f, 1024)) {
    echo $data;
}
```

stream_context_create() is available in PHP 4.3.0 and above. If you are using an older version, you would need the cURL functions or use fsockopen() to open the connection and send the cookie header with fputs().

Example 1:

```
$ch = curl_init();
curl_setopt($ch, CURLOPT_URL, $url);
curl_setopt($ch, CURLOPT_HTTPHEADER,
            array("Cookie: foo=bar"));
curl_exec($ch);
curl_close($ch);
```

Example 2:

```
$fp = fsockopen($host, $port);
fputs($fp, "GET / HTTP/1.0\r\n");
fputs($fp, "Host: $host\r\n");
fputs($fp, "Cookie: foo=bar\r\n\r\n");

while ($data = fgets($fp, 1024)) {
    echo $data;
}
```

Visitor details:

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Q: How do I get the address of the referrer?

A: With the variable `$_SERVER['HTTP_REFERER']`. However, two caveats:

1. A request might not have a Referer header, in which case the variable would not be set. Some browsers do not send Referer headers, for example, while others can be configured not to.

'The Refer field MUST NOT be sent if the Request-URI was obtained from a source that does not have its own URI, such as input from the user keyboard.' [HTTP/1.1]

2. A Referer header can be faked. The information might not be genuine.

Warning: As with all input, you should be cautious over the value of `$_SERVER['HTTP_REFERER']`.

Note: The Referer header is misspelt; the word in English is 'referrer', with four r's. As the misspelling has made it into the HTTP specification, it is too late to correct it.

Register Globals:

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Q: Why PHP not parsing forms?

Q: Why form variables not getting posted?

Q: Why form variables are always empty?

```
> <form method="post" action="form.php">
> Enter Your Name
> <input type="text" name="UserName"></input><br>
> <input type="submit" name="submit" value="click"></input>
> </form>

> <?php
> if($submit == "click"){
> echo "Hello, $UserName";
> }

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

Since 4.2.0 register_globals [1] is off by default due to security reasons [2]. One should use super globals (introduced in 4.1.0) instead to get to user supplied data [3]. So either fix:

-fix your code [4]:

```
if(isset($_POST['submit']) && $_POST['submit']=="click")
{
    echo 'Hello, ' . $_POST['UserName'];
}
```

-quick&dirty hack:

```
extract($_REQUEST);
in the global scope.
```

-enable register_globals

1: http://www.php.net/manual/en/ini.core.php#ini.register_globals

2: http://www.php.net/manual/en/security_globals.php

3:

<http://www.php.net/manual/en/language.variables.predefined.php#langua...>

4: \$_POST['UserName'] should ofcourse be escaped properly (with htmlspecialchars in this particular case).

Q: Why HTML is truncating PHP text? As in

```
> $test = "Mary had a little lamb"; ...  
> <input type="text" name="T1" value=<?php echo $test;?>>
```

Take a look at the source (the first place you should look to see what PHP is actually doing) and you will see it's all there as:

```
<input type="text" name="T1" value=Mary had a little lamb>
```

See the html specs on attributes (that is what value is):

<http://www.w3.org/TR/html401/intro/sgmltut.html#h-3.2.2>

To make a long boring spec short:

The value should be surrounded by quotes if it contains whitespaces, the quotes used to delimit should be escaped within the value.

eg:

```
<input type="text" name="T1" value="<?php echo $test;?>">
```

or

```
<input type="text" name="T1" value='<?php echo $test;?>'>
```

would be fine in this case, but will fail if there are quotes in \$test:

```
$test = "The lamb will soon be Mary's little \"ham\"";
```

will break either quoting style unless escaped with:

```
<input type="text" name="T1" value='<?php echo  
htmlspecialchars($test,ENT_QUOTES);?>'>
```

Q. How do I differentiate an empty string or numeric zero from false?

A. Use the === operator.

Refer:

<http://www.php.net/manual/en/language.operators.comparison.php>

GD:

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Q. I'm using the GD functions to create thumbnail images. Why am I getting such crummy results?

A. imagecopyresized() does not do a very good job scaling down images.

Use

imagecopyresampled() instead. If you are already using

imagecopyresampled(),
the problem might be that the destination image has limited color
range.
Create it with imagecreatetruecolor() instead of imagecreate().

Q: Where can I find PHP programming jobs?

A: Like Bigfoot, the Loch Ness Monster, and alien abductions, PHP jobs
are a
myth. The truth is, no one will pay you to program in PHP. If someone
tells
you he works as a PHP programmer, he is probably a spy.

A: --todo-- The above answer remains for historical reasons;--)

Q: Why am I getting the error message 'Headers already sent'?

If you get this error your script flow is broken (in most cases). Using
OB is nothing more than hiding the symptoms of the error.

The error tells you where the real problem lies:

```
1:<?php
2:error_reporting(E_ALL);
3://do stuff
4:echo "redirecting";
5:
6://do more stuff
7:
8:header("Location: http://localhost/");9:?>
```

will produce the error:

Warning: Cannot modify header information – headers already sent by
(output started at /path/to/script.php:4) in /path/to/script.php on
line 8

What is really is trying to say:

Error: line 8 at /path/to/script.php can't send headers. The problem is
at line 4 in /path/to/script.php, it produced some output to the client
so I already had sent all headers before getting to line 8.

But since you already have all required userinput you should find out
wheter you need to sent additional headers (like a redirect) before
outputting anything to the client. So the equivalent script with
correct

top down flow would be:

```
1:<?php
2:error_reporting(E_ALL);
3:if($condition){
4:header("Location: http://localhost/");
5:die("redirecting");
```

```
6:}  
7:  
8:echo "condition was false";  
9:??>
```

The following script:

```
1:<?php  
2://do stuff  
3:??>  
4:<html><body>
```

A: PHP produces this error message when you try to set a header for a web page after you have already started sending out the content of the page.

Web content is always delivered with a few headers at the top, ending with a blank line. For example, a web page might start like this:

```
> HTTP/1.1 200 OK  
> Date: Tue, 01 Mar 2005 12:00:00 GMT  
> Content-Type: text/html  
  
> <html>  
> <body> ... etc...
```

Once you have started sending the content of a document, you can't add any more headers because they won't appear at the top.

To get round this problem, use PHP's output control functions to buffer the output before it is sent. For example, you can generate a "Content-Length" header as follows:

```
> <?php  
  
> ob_start(); // Turn on output buffering  
  
> // Create your web page/jpeg file/whatever here  
> echo "<html><body> ... ";  
  
> // Generate a "Content-Length" header  
> $clen = ob_get_length();  
> header("Content-Length: $clen");
```

```
> // Now send the buffered content  
> ob_flush();
```

Q. After turning on output buffering I am still getting 'Headers already sent.' What the?

A. Something, somewhere is sent to the browser prior to the call to ob_start().

One possible culprit is white-spaces contained in an included file. To fix this, move the call to ob_start() ahead of any include/require statements.

Another possible culprit is UTF-8 encoding. Unicode-capable editor often place an invisible character at the beginning of a UTF-8 text file to mark it as UTF-8. This character will be output before any PHP statements are executed. To fix this, resave the file as ASCII.

The character in question is the zero-width non-breaking space (U+FFEF). In UTF-16 text it's used as a byte order indicator. In UTF-8 it's just a signature. If you leave it out then an editor might not be able to correctly sniff out the encoding, leaving to other problems.

Login/Authentication:

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Q: How to implement a login system?

A: Login/authentication system can be implemented in many ways:

1. Basic login system:

When the user logs in, set a cookie or session variable and expect that variable in every pages.

2. Sessions based login:

a. When the user logs in, store the session id in the database and then compare the current session id with the one stored in the database on every page.

b. Check logged in user's IP on every page.

c. Check logged in user's browser on every page. May use the user agent string (\$_SERVER['HTTP_USER_AGENT']) or hash of it.

Caveats:

(1) will definitely allow multiple logins and may allow session hijacking.

(2a) alone may allow session hijacking.

(2b) may break if the user is behind proxy.

(2b)&(2c) If session alone (without storing in database) is used as a

storage, it may break.

(1), (2a), (2c with database) may provide enough security.

Refer:

<http://www.php.net/session>

<http://www.mt-dev.com/2002/07/creating-a-secure-php-login-script/>

<http://www.mt-dev.com/2002/09/php-login-script/>

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@revision 2 Fixed answer for clarity. See Chung's comment

@todo Info about other authentications, better link to the login implementation (above links use obsolete PHP style)

Q: How to find the logged in users?

Q: How to find the number of logged in users?

A: If you use session based authentication/login mechanism, it is quite easy when you use custom-DB-based session--so that the session variables will be stored in database instead of default files. As the session will be available in the database table, it is easy to query it/count the number of sessions or records.

Refer:

http://www.php.net/session_set_save_handler

http://www.code.dearneighbor.com/db_session.html

PHP editors/IDE:

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Q: What is the best IDE for PHP?

Q: Which PHP IDE supports debugging, autocompletion, syntax highlighting, etc?

A: There are so many IDEs available. Some popular IDEs are:

Free:

1. PHPEdit <<http://www.waterproof.fr/products/PHPEdit/>>

.Windows.Commercial, Free for personal use

2. PHP Designer 2005 <<http://www.mpssoftware.dk/phpdesigner.php>>

Windows. Freeware

3. Maguma Open Studio <<http://sourceforge.net/projects/openstudio>>

Windows. Open source

4. PHP Coder <<http://www.phpide.de/>> Windows. Free

5. Dev-PHP <<http://devphp.sourceforge.net/dev3/>> Windows. Open source

6. PHP Eclipse <<http://www.phpeclipse.de/>> Eclipse plugin

Commercial:

1. Zend Studio <<http://www.zend.com/store/products/zend-studio/>>

Multi-platform

2. Macromedia Dreamweaver

<<http://www.macromedia.com/software/dreamweaver/>> Multi-platform

3. Maguma Workbench <<http://www.maguma.com/>> Multi-platform

4. ActiveState Komodo <<http://www.activestate.com/Products/Komodo/>>

Multi-platform

5. TruStudio <<http://www.xored.com/trustudio>> Eclipse plugin

Refer:

<http://www.thelinuxconsultancy.co.uk/phpeditors.php>

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@todo Cleanup

Contributors:

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@revision 1 Combined texts. Changed Chung's example URL to
www.example.com

@revision 2

@revision 3

@revision 4 ?

@revision 5 +Janwillem Borleffs. Nospam->NSpam. Added new Q's from the
FAQ threads. Ordered the contents.

@todo Cleanup. Grammar fix. Find proper heading. Trim "headers already
sent"