Debugging Perl Errors

Typical Errors when processing a form with a Perl script

1. cgi-bin is not a subdirectory of public\_html
2. Your Perl script is not in your cgi-bin subdirectory
3. Your Perl script was uploaded to cgi-bin in binary mode
4. cgi-bin and/or your perl script do not have unix execute permission
5. Your FORM action statement in your FORM HTML page is incorrect  
   For Example: <form action="form1.p" method="Post">  
   (Note the misspelling of the file extension)
6. Your Perl script has errors. This is the most common error. Some typical Perl errors are:
   * misspelled keyword, e.g., primt instead of print
   * missing semi-colon, e.g., &ReadParse instead &ReadParse;
   * an intended comment that does NOT start with #
   * a variable name in $in{...} that doesn't match the corresponding variable name in your form. This is a very common error.
   * having a blank line as the first line.

Here is a correct [form](http://fog.ccsf.org/~srubin/simpform.html) and the corresponding correct [Perl script](http://fog.ccsf.edu/~srubin/testpl.txt) in a text format.

**Note about cgiwrap**: cgiwrap allows ordinary users to run their own CGI scripts a gateway that allows more secure user access to CGI programs on an HTTPd server than is provided by the http server itself. The primary function of CGIwrap is to make certain that any CGI script runs with the permissions of the user who installed it, and not those of the server.

Note: At CCSF, the system administrator has put mod\_rewrite rules in Apache to implicitly implement /cgi-bin/cgiwrap/ (or phpwrap) for urls ending in ".php" or ".pl". Thus a reference to cgiwrap in your form action is unnecessary.

Typical Error Scenarios

**Example 1:**

**Error message:**

**CGIWrap Error: Execution of this script not permitted  
Execution of (testerr1.pl) is not permitted for the following reason:  
Script is not executable. Issue 'chmod 755 filename'**

**Reason for error: failure to give unix execute permission to your Perl script**

Here is the [example](http://fog.ccsf.org/~srubin/errform1.html) displayed. Click on the submit button of the form to see the error message.

Debugging Fix: give unix execute permission to your Perl script

**Example 2:**

**Error message:**

**CGIWrap Error: Execution of this script not permitted  
Script File Not Found!**

**Reason for error: your Perl script is not in cgi-bin**

Here is the [example](http://fog.ccsf.org/~srubin/errform2.html) displayed. Click on the submit button of the form to see the error message.

Debugging Fix: put Perl script in cgi-bin

**Example 3:**

**Error message:  
  
Not Found  
The requested URL /~srubin/testerr3.p was not found on this server.**

**Reason for error: in your Form HTML file, the ACTION's value of your form statement is incorrect**

Here is the [example](http://fog.ccsf.org/~srubin/errform3.html) displayed. Click on the submit button of the form to see the error message and look at the URL of the error message. Also view source for the form and check the ACTION's value of the form statement. (Note that the name of the perl script incorrectly ends in p instead of pl).

Debugging Fix: correct the ACTION's value

**Example 3a:**

**Error message:**

**CGIWrap Error: Execution of this script not permitted  
Script File Not Found!**

**Reason for error: in your Form HTML file, the ACTION's value of your form statement is incorrect**

Here is the [example](http://fog.ccsf.org/~srubin/cnit132/errform3a.html) displayed. Click on the submit button of the form to see the error message and look at the URL of the error message. Also view source for the form and check the ACTION's value of the form statement. (Notice that the URL is**http://fog.ccsf.org/~srubin/cnit132/errform3a.html**

and that the form action is missing ../ because you need to go up one directory to correctly reference the cgi-bin directory).

Debugging Fix: correct the ACTION's value

**Example 4:**

**Error message:**

**Internal Server Error  
The server encountered an internal error or misconfiguration and was unable to complete your request.**

**Reason for error: error in your Perl script**

Here is the [example](http://fog.ccsf.org/~srubin/errform4.html) displayed. Click on the submit button of the form to see the error message.

Debugging Fix: Check your Perl script for error(s) and correct them

The best way that I have found to find this error is to connect (using SSH) to your hills account and run the Perl interpreter on your script. Go to your cgi-bin subdirectory by entering:   
  
cd public\_html/cgi-bin  
perl testerr4.pl (where testerr4.pl is the name of your Perl script)  
  
You should now be able to locate the error in your perl script. In this example, the Perl script had   
  
primt "Content-type: text/html\n\n";

Here is what the Perl interpreter found:  
  
String found where operator expected at testerr4.pl line 12, near "primt "Content-type: text/html\n\n""  
(Do you need to predeclare primt?)  
syntax error at testerr4.pl line 12, near "primt "Content-type: text/html\n\n""  
Execution of testerr4.pl aborted due to compilation errors.

**Example 5:**

**Error message:**

**Internal Server Error  
The server encountered an internal error or misconfiguration and was unable to complete your request.**

**Reason for error: error in your Perl script**

Here is the [example](http://fog.ccsf.org/~srubin/errform5.html) displayed. Click on the submit button of the form to see the error message.

Debugging Fix: Check your Perl script for error(s) and correct them

To find this error: connect to your hills account and run the Perl interpreter on your script. Go to your cgi-bin subdirectory by entering:   
  
cd public\_html/cgi-bin  
perl testerr5.pl (where testerr5.pl is the name of your Perl script)  
  
You should now be able to locate the error in your perl script. In this example, the Perl script had   
&ReadParse instead of &ReadParse;

Here is what the Perl interpreter found:  
  
syntax error at testerr5.pl line 12, near "print"  
Execution of testerr5.pl aborted due to compilation errors   
  
NOTE: this error is harder to find since it gives an error on the line after the actual error.

**Example 6:**

**No error message:**

**Reason for error: mismatching of a variable name**

Here is the [example](http://fog.ccsf.org/~srubin/errform6.html) displayed. Click on the submit button of the form and this time the script apparently works, since some output is returned. But noticed that the first line of output is incomplete.

Debugging Fix: Check your Perl script variable name and the the corresponding variable name in your form. You should see that they do NOT match. Notice that the name in the form select element is *favorite* while the name in the perl script is*fav*. Fix this error by changing either variable name so that they DO match.