

NAME

CGI::Fast - CGI Interface for Fast CGI

SYNOPSIS

```
use CGI::Fast qw(:standard);
$COUNTER = 0;
while (new CGI::Fast) {
print header;
print start_html("Fast CGI Rocks");
print
    h1("Fast CGI Rocks"),
    "Invocation number ",b($COUNTER++),
        " PID ",b($$),".",
    hr;
    print end_html;
}
```

DESCRIPTION

CGI::Fast is a subclass of the CGI object created by CGI.pm. It is specialized to work well with the Open Market FastCGI standard, which greatly speeds up CGI scripts by turning them into persistently running server processes. Scripts that perform time-consuming initialization processes, such as loading large modules or opening persistent database connections, will see large performance improvements.

OTHER PIECES OF THE PUZZLE

In order to use CGI::Fast you'll need a FastCGI-enabled Web server. Open Market's server is FastCGI-savvy. There are also freely redistributable FastCGI modules for NCSA httpd 1.5 and Apache. FastCGI-enabling modules for Microsoft Internet Information Server and Netscape Communications Server have been announced.

In addition, you'll need a version of the Perl interpreter that has been linked with the FastCGI I/O library. Precompiled binaries are available for several platforms, including DEC Alpha, HP-UX and SPARC/Solaris, or you can rebuild Perl from source with patches provided in the FastCGI developer's kit. The FastCGI Perl interpreter can be used in place of your normal Perl without ill consequences.

You can find FastCGI modules for Apache and NCSA httpd, precompiled Perl interpreters, and the FastCGI developer's kit all at URL:

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

WRITING FASTCGI PERL SCRIPTS

FastCGI scripts are persistent: one or more copies of the script are started up when the server initializes, and stay around until the server exits or they die a natural death. After performing whatever one-time initialization it needs, the script enters a loop waiting for incoming connections, processing the request, and waiting some more.

A typical FastCGI script will look like this:

```
#!/usr/local/bin/perl    # must be a FastCGI version of perl!
use CGI::Fast;
&do_some_initialization();
while ($q = new CGI::Fast) {
&process_request($q);
}
```

Each time there's a new request, CGI::Fast returns a CGI object to your loop. The rest of the time your script waits in the call to new(). When the server requests that your script be terminated, new() will return undef. You can of course exit earlier if you choose. A new version of the script will be respawnd to take its place (this may be necessary in order to avoid Perl memory leaks in long-running scripts).

CGI.pm's default CGI object mode also works. Just modify the loop this way:

```
while (new CGI::Fast) {
    &process_request;
}
```

Calls to header(), start_form(), etc. will all operate on the current request.

INSTALLING FASTCGI SCRIPTS

See the FastCGI developer's kit documentation for full details. On the Apache server, the following line must be added to srm.conf:

```
AddType application/x-httpd-fcgi .fcgi
```

FastCGI scripts must end in the extension .fcgi. For each script you install, you must add something like the following to srm.conf:

```
FastCgiServer /usr/etc/httpd/fcgi-bin/file_upload.fcgi -processes 2
```

This instructs Apache to launch two copies of file_upload.fcgi at startup time.

USING FASTCGI SCRIPTS AS CGI SCRIPTS

Any script that works correctly as a FastCGI script will also work correctly when installed as a vanilla CGI script. However it will not see any performance benefit.

EXTERNAL FASTCGI SERVER INVOCATION

FastCGI supports a TCP/IP transport mechanism which allows FastCGI scripts to run external to the webserver, perhaps on a remote machine. To configure the webserver to connect to an external FastCGI server, you would add the following to your srm.conf:

```
FastCgiExternalServer /usr/etc/httpd/fcgi-bin/file_upload.fcgi -host
sputnik:8888
```

Two environment variables affect how the CGI::Fast object is created, allowing CGI::Fast to be used as an external FastCGI server. (See FCGI documentation for FCGI::OpenSocket for more information.)

FCGI_SOCKET_PATH

The address (TCP/IP) or path (UNIX Domain) of the socket the external FastCGI script to which bind and listen for incoming connections from the web server.

FCGI_LISTEN_QUEUE

Maximum length of the queue of pending connections.

For example:

```
#!/usr/local/bin/perl    # must be a FastCGI version of perl!
use CGI::Fast;
&do_some_initialization();
$ENV{FCGI_SOCKET_PATH} = "sputnik:8888";
$ENV{FCGI_LISTEN_QUEUE} = 100;
```

```
while ($q = new CGI::Fast) {  
    &process_request($q);  
}
```

CAVEATS

I haven't tested this very much.

AUTHOR INFORMATION

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Address bug reports and comments to: lstein@cshl.org

BUGS

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SEE ALSO

CGI::Carp, *CGI*