



mod_perl Quick Reference Card

Revision 1.0 for mod_perl version 1.19
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mod_perl is an Apache module, created by Doug MacEachern, that embeds a Perl interpreter within the server. It provides a Perl API to Apache and adds a number of Apache configuration directives. Scripts using **mod_perl** should import the *Apache* module, *Apache::Constants*, and other *Apache::* modules. A reference to the request object (denoted below by `$r`) is passed to Perl handlers when they are invoked.

Client request methods

```
$r = Apache->request();
$str = $r->args(); # or %hash = ...
$c = $r->connection # see Apache::Connection
$str = $r->content(); # or %hash = ...
$str = $r->filename( [$newval] );
    $r->finfo();
$str = $r->get_remote_host( [$lookup_type] );
    # use Apache::Constants::remotehost tag
$str = $r->get_remote_logname();
$str = $r->header_in( $hdr [, $newval] );
$bool = $r->header_only();
$href = $r->headers_in(); # or %hash = ...
$str = $r->method( [$newval] );
$num = $r->method_number( [$nv] ); # use :methods tag
$u = $r->parsed_uri(); # see Apache::URI
$str = $r->path_info( [$newval] );
$str = $r->protocol();
$bool = $r->proxyreq( [$newval] );
    $r->read( $buf, $bytes_to_read );
$s = $r->server # see Apache::Server
$str = $r->the_request();
$str = $r->uri( [$newval] );
```

Server response methods

```
$num = $r->bytes_sent();
    $r->cgi_header_out( $hdr [, $newval] );
$str = $r->content_encoding( [$newval] );
$aref = $r->content_languages( [$newval] );
$str = $r->content_type( [$newval] );
    $r->custom_response( $code, $uri );
$str = $r->err_header_out( $hdr [, $newval] );
$href = $r->err_headers_out(); # or %hash = ...
$str = $r->handler( [$newval] );
$str = $r->header_out( $hdr [, $newval] );
$href = $r->headers_out(); # or %hash = ...
$bool = $r->no_cache( [$newval] );
$num = $r->request_time();
$num = $r->status( [$newval] );
$str = $r->status_line( [$newval] );
```

Sending data to the client

```
$r->print( @list ); # checks $/
$r->printf( $format, @args );
$r->rflush();
$r->send_cgi_header( $str );
$flen = $r->send_fd( $filehandle );
```

```
$r->send_http_header( [$content_type] );
```

Server core functions

```
$r->chdir_file( $file );
$r->child_terminate();
$r->hard_timeout( $msg );
$r->internal_redirect( $newplace );
$r->internal_redirect_handler( $newplace );
$bool = $r->is_initial_req();
$bool = $r->is_main();
$r->kill_timeout();
$str = $r->location();
$req = $r->last();
$req = $r->main();
$req = $r->next();
$str = $r->notes( $k [, $v] ); # or $tab = $r->notes()
$req = $r->prev();
    $r->register_cleanup( $code_ref );
    $r->reset_timeout();
    $r->soft_timeout( $msg );
$str = $r->subprocess_env( [ $k [, $v] ] );
```

Server configuration methods

```
$str = $r->dir_config( $k ); #or $tab=$r->dir_config()
$str = $r->document_root();
$str = $r->get_server_name();
$num = $r->get_server_port();
$str = $r->server_root_relative( [$obj] );
```

Logging and the Apache::Log class

```
$str = $r->as_string();
$r->log_reason( $message, $file );
$r->log_error( $message );
$r->warn( $message );
$log = $r->log();
$log = $s->log();
    $log->emerg ( { $str ... | $code_ref } );
    $log->alert ( { $msg ... | $code_ref } );
    $log->crit ( { $msg ... | $code_ref } );
    $log->error ( { $msg ... | $code_ref } );
    $log->warn ( { $msg ... | $code_ref } );
    $log->notice( { $msg ... | $code_ref } );
    $log->info ( { $msg ... | $code_ref } );
    $log->debug ( { $msg ... | $code_ref } );
```

Access control methods

```
$opts = $r->allow_options(); # use :options tag
$str = $r->auth_name( [$newval] );
$str = $r->auth_type();
($src, $pw) = $r->get_basic_auth_pw();
    $r->note_basic_auth_failure();
$aref = $r->requires();
$flag = $r->satisfies(); # use :satisfies tag
$bool = $r->some_auth_required();
```

mod_perl specific methods

```
$str = $r->current_callback();
$bool = $r->define( $name );
    Apache->exit( $code );
$fh = Apache->gensym();
```

```
$aref = $r->get_handlers( $str );
    Apache->httpd_conf( $str );
$bool = $r->module( $name );
$bool = Apache->perl_hook( $name );
    $r->post_connection( $code_ref );
    $r->push_handlers( $str => $code_ref );
$r = Apache->request( [$r] );
    $r->set_handlers( $str => $aref );
```

Apache::SubRequest class

```
$subr = $r->lookup_uri( $uri );
$subr = $r->lookup_file( $filename );
$rc = $subr->run();
```

Apache::Server class

```
$s = Apache->server # or $r->server
$bool = $s->is_virtual();
    $s->log_error();
$aref = $s->names();
$s = $s->next();
$num = $s->port();
$str = $s->server_admin();
$str = $s->server_hostname();
$num = $s->timeout( [$newval] );
    $s->warn();
```

Apache::Connection class

```
$bool = $c->aborted();
$str = $c->auth_type();
$addr = $c->local_addr();
$addr = $c->remote_addr( [$addr] );
$str = $c->remote_host();
$str = $c->remote_ip( [$ip] );
$str = $c->remote_logname();
$str = $c->user( [$username] );
```

Apache::Table class

```
$tab = Apache::Table->new( $r [, $size] );
    $tab->add( $key, $str_or_aref );
    $tab->clear();
    $tab->do( $code_ref );
    $tab->merge( $key, $str_or_aref );
    $tab->set( $key, $str );
    $str = $tab->get( $key ); # or @list = ...
    $tab->unset( $key );
```

Apache::URI class

```
$uri = Apache::URI->parse( $r [, $string_uri] );
$str = $uri->unparse();
    $str = $uri->component( [$newval] );
    (where component is one of: fragment, hostinfo, hostname, password, path_info, path, port, query, rpath, scheme, user)
```

Apache::Util class

```
$str = Apache::Util::escape_html( $html );
$str = Apache::Util::escape_uri( $uri );
    $str = Apache::Util::ht_time( $time [, $fmt [, $bool]] );
    $secs = Apache::Util::parsedate( $date_str );
    $num = Apache::Util::size_string( $num );
    $str = Apache::Util::unescape_uri( $uri );
    $str = Apache::Util::unescape_uri_info( $uri );
```

Apache::Constants class

The following export tag groups are defined (HTTP status code synonyms are given in brackets):

```

:common: OK, DECLINED, DONE, NOT_FOUND, FORBIDDEN,
        AUTH_REQUIRED (HTTP_UNAUTHORIZED), SERVER_ERROR

:response: DOCUMENT_FOLLOWS (HTTP_OK),
          MOVED (HTTP_MOVED_PERMANENTLY),
          REDIRECT (HTTP_MOVED_TEMPORARILY),
          USE_LOCAL_COPY (HTTP_NOT_MODIFIED),
          BAD_REQUEST, BAD_GATEWAY, NOT_IMPLEMENTED,
          CONTINUE, NOT_AUTHORITATIVE

:methods: M_CONNECT, M_COPY, M_DELETE, M_GET, M_INVALID,
          M_LOCK, M_MKCOL, M_MOVE, M_OPTIONS, M_PATCH, M_POST,
          M_PROPFIND, M_PROPPATCH, M_PUT, M_TRACE, M_UNLOCK, METHODS

:options: OPT_ALL, OPT_NONE, OPT_INDEXES, OPT_INCLUDES,
          OPT_SYM_LINKS, OPT_EXECCGI, OPT_UNSET,
          OPT_INCNOEXEC, OPT_SYM_OWNER, OPT_MULTII,

:satisfies: SATISFY_ALL, SATISFY_ANY, SATISFY_NOSPEC

:server: MODULE_MAGIC_NUMBER, SERVER_BUILT, SERVER_VERSION

:remotehost: REMOTE_HOST, REMOTE_NAME, REMOTE_NOLOOKUP,
            REMOTE_DOUBLE_REV

```

http includes only those HTTP status code constants shown below in bold type (other HTTP constants may be imported explicitly):

```

100 HTTP_CONTINUE          405 HTTP_METHOD_NOT_ALLOWED
101 HTTP_SWITCHING_PROTOCOLS 406 HTTP_NOT_ACCEPTABLE
200 HTTP_OK                407 HTTP_PROXY_AUTHENTICATION_
                          REQUIRED
201 HTTP_CREATED           408 HTTP_REQUEST_TIMEOUT
202 HTTP_ACCEPTED         409 HTTP_CONFLICT
203 HTTP_NON_AUTHORITATIVE 410 HTTP_GONE
204 HTTP_NO_CONTENT       411 HTTP_LENGTH_REQUIRED
205 HTTP_RESET_CONTENT    412 HTTP_PRECONDITION_FAILED
206 HTTP_PARTIAL_CONTENT  413 HTTP_REQUEST_ENTITY_TOO_LARGE
300 HTTP_MULTIPLE_CHOICES 414 HTTP_REQUEST_URI_TOO_LARGE
301 HTTP_MOVED_PERMANENTLY 415 HTTP_UNSUPPORTED_MEDIA_TYPE
302 HTTP_MOVED_TEMPORARILY 500 HTTP_INTERNAL_SERVER_ERROR
303 HTTP_SEE_OTHER        501 HTTP_NOT_IMPLEMENTED
304 HTTP_NOT_MODIFIED     502 HTTP_BAD_GATEWAY
305 HTTP_USE_PROXY        503 HTTP_SERVICE_UNAVAILABLE
400 HTTP_BAD_REQUEST      504 HTTP_GATEWAY_TIME_OUT
401 HTTP_UNAUTHORIZED     505 HTTP_VERSION_NOT_SUPPORTED
402 HTTP_PAYMENT_REQUIRED 506 HTTP_VARIANT_ALSO_VARIES
403 HTTP_FORBIDDEN
404 HTTP_NOT_FOUND

```

Magic global variables

```

$0, $^X, $|, $/, %@, %SIG, @INC, %INC, %ENV{MOD_PERL},
%ENV{GATEWAY_INTERFACE}, %ENV{PERL_SEND_HEADER}

```

Special package globals

```

$Apache::Server::CWD          $Apache::Server::SaveConfig
$Apache::Server::ReStarting  $Apache::Server::Starting

```

HTTP 1.1 headers

Syntax

```

Accept: media-types[:q=qvalue] [, ...]
Accept-Charset: charset[:q=qvalue] [, ...]
Accept-Encoding: encoding[:q=qvalue] [, ...]
Accept-Language: lang[:q=qvalue] [, ...]
Accept-Ranges: {bytes|none}
Age: seconds
Allow: method [, ...]
Authorization: scheme credentials
Cache-Control: directive
Connection: close
Content-Base: uri
Content-Encoding: enc
Content-Language: lang
Content-Length: len
Content-MD5: digest
Content-Range: bytes range/length
Content-Type: media-type
Cookie: name=value [: ... ]
Date: date
ETag: entity-tag
Expect: expectation
Expires: date
From: email-address
Host: hostname[:port]
If-Match: entity-tag
If-Modified-Since: date
If-None-Match: entity-tag
If-Range: {entity tag|date}
If-Unmodified-Since: date
Last-Modified: date
Location: uri
MIME-Version: version
Max-Forwards: number
Pragma: {no-cache|extension-pragma}
Proxy-Authenticate: challenge
Proxy-Authorization: credentials
Public: method ...
Range: bytes=n[-m] [, ...]
Referer: url
Retry-After: {date|seconds}
Server: string
Set-Cookie: name=value[: options]
TE: coding
Trailer: header
Transfer-Encoding: coding
Upgrade: protocol [, ...]
User-Agent: string
Vary: header [, ...]
Via: [protocol/]version [(comment)] [, ...]
WWW-Authenticate: scheme realm
Warning: code agent "text" [date]

```

Category

```

REQUEST
REQUEST
REQUEST
RESPONSE
RESPONSE
ENTITY
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```

Apache mod_perl configuration directives

mod_perl enables Apache to be configured using Perl statements that are contained within `<Perl>...</Perl>` sections and adds the Apache configuration directives listed below. Each directive is given with its arguments; defaults are given where appropriate in parentheses at the end of the line, followed by the symbol ❖ to mark directives only valid in a directory section or `.htaccess` file.

```

PerlAccessHandler handler
PerlAuthenHandler handler
PerlAuthzHandler handler
PerlChildExitHandler handler ❖
PerlChildInitHandler handler ❖
PerlCleanupHandler handler
PerlDispatchHandler handler
PerlFixupHandler handler
PerlFreshRestart {On|Off} (On) ❖
PerlHandler handler
PerlHeaderParserHandler handler
PerlInitHandler handler
PerlLogHandler handler
PerlModule
PerlPassEnv name ... ❖
PerlPostReadRequestHandler handler ❖
PerlRequire script-file
PerlSendHeader {On|Off} (Off)
PerlSetEnv name value
PerlSetVar name value
PerlSetupEnv {On|Off} (Off)
PerlTaintCheck {On|Off} (Off) ❖
PerlTransHandler handler ❖
PerlTypeHandler handler
PerlWarn {On|Off} (Off) ❖

```

Resources

<http://perl.apache.org> The Apache/Perl Integration Project
<http://www.modperl.com> Writing Apache Modules home page
<http://www.apache.org> Apache home page
<http://www.perl.com> Perl home page
<http://www.refcards.com> Quick reference cards

mod_perl Quick Reference Card

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