



# Apache Configuration & Troubleshooting

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Simplify.



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# Topics

- »» New Features in EasyApache 3
- »» Configuration
- »» Security
- »» Troubleshooting

# Easy Apache 3

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## Features in EA3

All Major Apache Versions

Build Profiles

3<sup>rd</sup> Party Integration

Simplified Troubleshooting

Improved support for 64 bit

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# Configuration

Build

Capabilities

Runtime

Behavior

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# Easyapache

Entry points:

- /scripts/easyapache
- WHM >>Software >> Apache Update

What is a Profile?

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# Profiles

- »» cPanel Profiles
- »» Custom Profiles

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# cPanel Profiles

Basic

No PHP

PHP Encryption/E-Commerce

PHP Encryption and Image Manipulation

PHP Image Manipulation

PHP Security

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# Refine your Options

Apache Version

PHP Major/Minor Version

Modules, Extensions, build options

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# Final Choices

## Save and Build Options

When you "save" your choices in this interface it is referred to as the "last saved version". Here, you can additionally "Save As" a specific name for reuse.

Save As  (Maximum 64 letters, numbers, and underscores only)

Profile Name

Description

- Save only (Do NOT build)
- Save and build

Build without save?

Where is ...?

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# Customize Easyapache

1. Via environment variables
2. Custom configure flags
3. /scripts/posteasyapache

<http://www.cpanel.net/support/docs/easyapache.htm>

# The power of EasyApache 3

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# EasyApache 3

`--profile=profile_name`

`/var/cpanel/easy/apache/profile/custom`



```
/var/cpanel/easy/apache/profile/custom
```

```
cpanel_default.yaml  
cpanel_no_php.yaml  
cpanel_php_enc.yaml  
cpanel_php_enc_img.yaml  
cpanel_php_img.yaml  
cpanel_php_sec.yaml  
Everything.yaml
```

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# EasyApache 3

```
/scripts/easyapache --profile=Everything
```

```
--build
```

```
/scripts/easyapache --profile=Everything --build
```

What does \_\_\_\_\_ do?

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# What does \_\_\_ do?

[?] Negotiation

[?] Negotiation

[http://httpd.apache.org/docs/2.0/mod/mod\\_negotiation.html](http://httpd.apache.org/docs/2.0/mod/mod_negotiation.html)

# Apache/PHP Resources

- »» Apache 1.3 documentation
  - <http://httpd.apache.org/docs/1.3/>
- »» Apache 2.0 documentation
  - <http://httpd.apache.org/docs/2.0/>
- »» Apache 2.2 documentation
  - <http://httpd.apache.org/docs/2.2/>
- »» PHP Manual
  - <http://www.php.net/manual/en/>

# Runtime Configuration

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# Runtime Config

`/usr/local/apache/conf/httpd.conf`

Global

VirtualHost

`/usr/local/lib/php.ini`

Gah! cPanel overwrote my  
changes!!!!!!!!!!

# Integrating changes

```
/usr/local/cpanel/bin/apache_conf_distiller --update  
--verbose
```

```
Failed to pass acceptance test: <IfModule !mpm_netware_module>  
Disabling      Order deny,allow  
Disabling      Deny from all  
Disabling      Order allow,deny  
Disabling      Allow from all  
Failed to pass acceptance test: <IfModule dir_module>  
.....
```

# Integrating Changes

- - apache - conf=/path/to/conf

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# Integrating Changes

VirtualHost Templates

```
/usr/local/cpanel/src/templates
```

```
vhost.default
```

```
ssl_vhost.default
```

# PHP Configuration

`/usr/local/lib/php.ini`



Security

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Everyone's Favorite

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# PHP Security

As User

Locking environment

Locking php.ini

# PHP Security

PHP As User

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## PHP As User

PHPSuExec

<http://httpd.apache.org/docs/1.3/suexec.html>

suPHP

<http://www.suphp.org/>

## PHP As User

Runs via CGI

Conflicts with mod\_php

php\_value/php\_admin flags won't work

Application incompatibility

suPHP Configurable at runtime

# PHP Security

Locking Environment

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# Locking the Environment

`disable_functions`

`dl`

Program Execution Functions

<http://us2.php.net/manual/en/ref.exec.php>

# PHP Security

Locking php.ini

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# Locking php.ini

Safe PHP CGI

`/usr/local/lib/php.ini`

Know your .htaccess

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# .htaccess

AllowOverride Options

Allows user to configure modules

# Modules & Tools

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mod\_security

<http://www.modsecurity.org/>

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## mod\_security

*“ModSecurity is an embeddable web application firewall”*

Available for all 3 versions of Apache

# mod\_security example

```
SecRule ARGS "delete[[:space:]]+from"
```

```
SecRule ARGS "insert[[:space:]]+into"
```

# mod\_security

Core rules updated

<http://www.modsecurity.org/download/index.html>

## Others

mod\_evasive

[http://www.zdziarski.com/projects/mod\\_evasive/](http://www.zdziarski.com/projects/mod_evasive/)

Scanning tools

<http://sectools.org/>

Beware the compatibility!

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# Troubleshooting

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# New Build Behavior

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## New Build Behavior

Backup

`/usr/local/apache.backup`

Modules not restored

# When Builds go Bad

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# Build Troubleshooting

EasyApache build log

```
/usr/local/cpanel/logs/easy/apache
```

Dependencies

```
'Cpanel::Easy::Apache::DAVFs' requires the option  
'Cpanel::Easy::Apache::Dav'to be on and not  
"skipped".
```

# Build Troubleshooting



## Save Changes and Start Build

**You are here:** Profile :: Apache :: PHP Main :: PHP Specific :: Details :: Save :: Build

***Entry 'Cpanel::Easy::PHP5::PcreRegex' does not exist in state.***

***... Profile validation failed.***

## Troubleshooting

Apache Configure test

```
/usr/local/apache/bin/httpd -t
```

```
/usr/local/apache/bin/httpd -t -f file
```

Apache Logs

```
/usr/local/apache/logs/error_log
```



Questions?

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