

 CP Conference

CELEBRATING



10 YEARS

- 2015 -

Introducing EasyApache 4

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cPanel Inc

EasyApache 4

- **Binary Packages (SCL & LSB Compliant)**
- **Multiple PHP Versions**
- **Automatic Updates**
- **No source compilations!**
- **Easily customizable**

Webstack packages

- **cPanel EasyApache Namespace “ea”**
- **Apache 2.4 with PHP 5.4, 5.5, & 5.6**
- **mod_security2, mod_ruid2, mod_mpm_itk**
- **SuPHP, CGI, FastCGI, PHP-FPM, DSO/mod_php**
- **Zend Guard, SourceGuardian, IonCube**
- **Most extensions and modules from EA3**

How does it work?

- **FOSS RPMs built by OBS**
- **SRPMs located at github.com/CPANELINC**
- **<http://go.cpanel.net/BuildRPM>**
- **Yummy yum-plugin-universal-hooks**
 - **(MIT License. STEAL IT!)**
- **Packages are located on cPanel mirrors**

What's different?

EasyApache 3

EasyApache 4

/usr/local/apache/

/etc/apache2, /var/log, /usr/lib

PHP Binaries

/opt/cpanel/ea-php54/root/usr/bin/php
/opt/cpanel/ea-php55/root/usr/bin/php
/opt/cpanel/ea-php56/root/usr/bin/php

/usr/bin/php | /usr/local/bin/php

C Wrapper

/usr/local/lib/php.ini

/opt/cpanel/ea-php55/root/etc/php.ini
/opt/cpanel/ea-php55/root/etc/php.d/local.ini

Apache is moving!

```
# ls -lah /usr/local/apache
lrwxrwxrwx. 1 root root 28 Aug 7 13:47 access_log -> /etc/apache2/logs/access_log
drwxr-xr-x. 2 root root 4.0K Aug 7 13:47 bin
drwxr-xr-x. 2 root root 4.0K Aug 7 13:47 conf
lrwxrwxrwx. 1 root root 25 Aug 7 13:47 domlogs -> /etc/apache2/logs/domlogs
lrwxrwxrwx. 1 root root 27 Aug 7 13:47 error_log -> /etc/apache2/logs/error_log
lrwxrwxrwx. 1 root root 13 Aug 7 13:47 htdocs -> /var/www/html
lrwxrwxrwx. 1 root root 17 Aug 7 13:47 logs -> /etc/apache2/logs
lrwxrwxrwx. 1 root root 20 Aug 7 13:47 modules -> /etc/apache2/modules
```

```
# ls -lah /etc/apache2/
drwxr-xr-x. 2 root root 4.0K Aug 8 20:01 conf
drwxr-xr-x. 5 root root 4.0K Aug 7 14:23 conf.d
drwxr-xr-x. 2 root root 4.0K Aug 7 13:47 conf.modules.d
lrwxrwxrwx. 1 root root 21 Aug 7 13:47 logs -> ../../var/log/apache2
lrwxrwxrwx. 1 root root 31 Aug 7 13:47 modules -> ../../usr/lib64/apache2/modules
lrwxrwxrwx. 1 root root 21 Aug 7 13:47 run -> ../../var/run/apache2
```

Apache Configuration

Where is all the things?

```
vhosts          == '/etc/apache2/conf/httpd.conf'  
mime.types     == '/etc/apache2/conf/mime.types'  
php htaccess   == '/etc/apache2/conf.d/$pkg.htaccess'  
php.conf       == '/etc/apache2/conf.d/php.conf'  
mod_security2 == '/etc/apache2/conf.d/modsec2.conf',  
               '/etc/apache2/conf.d/modsec2.cpanel.conf',  
               '/etc/apache2/conf.d/modsec_vendor_configs/'
```

Apache Modules

```
*.conf         == '/etc/apache2/modules.conf.d/',  
*.so           == '/etc/apache2/modules/' => '/usr/lib(?:64)/apache2/modules/'
```

The distiller is dying! Use Includes!

```
include        == '/etc/apache2/conf.d/includes/'  
               'pre_main_global.conf',  
               'pre_virtualhost_global.conf',  
               'post_virtualhost_global.conf'
```


PHP is moving too!

SCL PHP Binary locations

```
# /opt/cpanel/ea-php54/root/usr/bin/php  
# /opt/cpanel/ea-php55/root/usr/bin/php  
# /opt/cpanel/ea-php56/root/usr/bin/php
```

PHP Extensions .conf

```
# /opt/cpanel/ea-php##/root/etc/php.d
```

PHP Extensions .so

```
# /opt/cpanel/ea-php##/root/usr/lib64/php/modules
```

/usr/bin/php

- **Drop in replacement for EasyApache 4**
- **Executes correct PHP version for the environment**
- **Configurable**
- **Symlinked to /usr/local/bin/php**

PHP INI and you!

- **RPM Controlled**

```
# ls -lah /opt/cpanel/ea-php54/root/etc/php.ini  
-rw-r--r--. 1 root root 64K Aug  6 21:54 /opt/cpanel/ea-php54/root/etc/php.ini
```

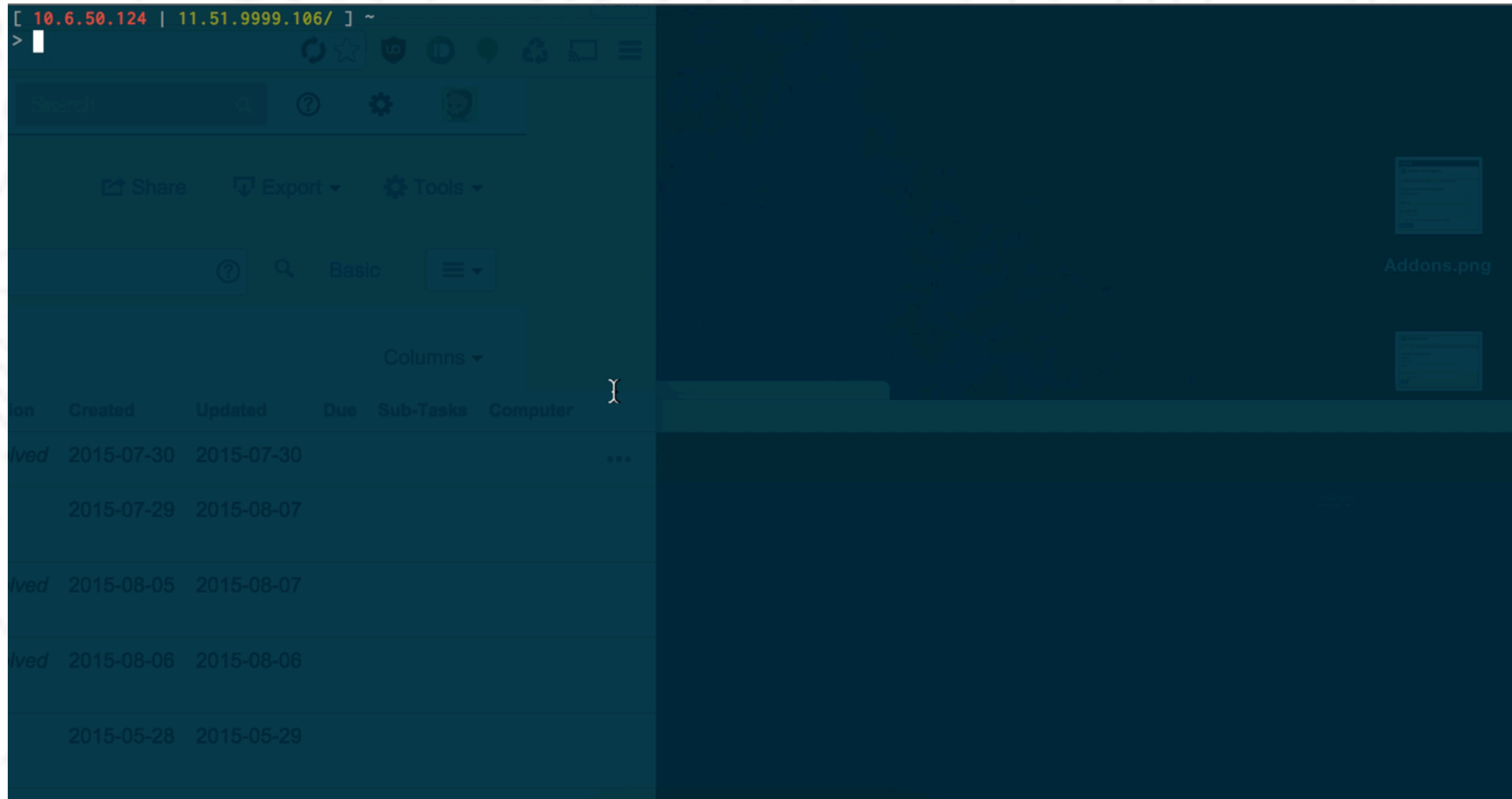
- **Customizations**

```
# ls -lah /opt/cpanel/ea-php54/root/etc/php.d/local.ini  
-rw-r--r--. 1 root root 64K Jun 14 10:00 /opt/cpanel/ea-php54/root/etc/php.d/local.ini
```

How do I use it?

- **Migrate script**
 - `/scripts/migrate_ea3_to_ea4`
- **Primary interfaces / Control mechanisms**
 - **WHM EasyApache 4**
 - **EasyApache 4 Profiles**
 - **Command line with yum**
 - **rebuild_phpconf**

EasyApache Migration



WHM EasyApache 4



Landing

Profile

Review

Provision

Welcome

EasyApache is software that installs, configures, updates, and validates your web server, PHP, and other components of your web server. EasyApache 4 allows for automatic updates and uses RPMs to install and manage software.

Start

- [How to use EasyApache 4](#)
- [How to run EasyApache 4 from a Command Line Interface \(CLI\)](#)
- [How to Make a New Profile](#)

EasyApache 4 Profiles

★ All PHP Options + OpCache **cPanel**

This is the default cPanel profile plus every PHP option (sans recode and zendguard due to incompatibilities). This package can host multiple sites and users.

Apache 2.4 PHP 5.4 PHP 5.5 PHP 5.6 All PHP Opts

[View Profile](#) [Provision](#)

All PHP Options + ZendGuard **cPanel**

This is the default cPanel profile plus every PHP option (sans recode and opcache due to incompatibilities). This package can host multiple sites and users.

Apache 2.4 PHP 5.4 PHP 5.5 PHP 5.6 All PHP Opts

[View Profile](#) [Provision](#)

cPanel Default **cPanel**

This is the standard Apache package with up-to-date PHP and modules. This package can host multiple sites and users.

Apache 2.4 PHP 5.4 PHP 5.5 PHP 5.6

[View Profile](#) [Provision](#)

cPanel Default + MPM ITK **cPanel**

This profile includes the modules from the Basic profile but replaces MPM Worker with MPM ITK to further increase security for your server. MPM ITK creates a more secure environment than Mod Ruid2, but uses more resources.

Apache 2.4 PHP 5.4 PHP 5.5 PHP 5.6 MPM ITK

[View Profile](#) [Provision](#)

```
{ "version": "0.1",  
  "desc": "Read the tags",  
  "pkgs": [ "ea-apache24", "ea-apr", "ea-apr-  
util", "ea-php54", "ea-php55", "ea-php56"],  
  "name": "AwesomeSauce",  
  "tags": [ "Best.", "Profile.", "Ever." ]  
}
```

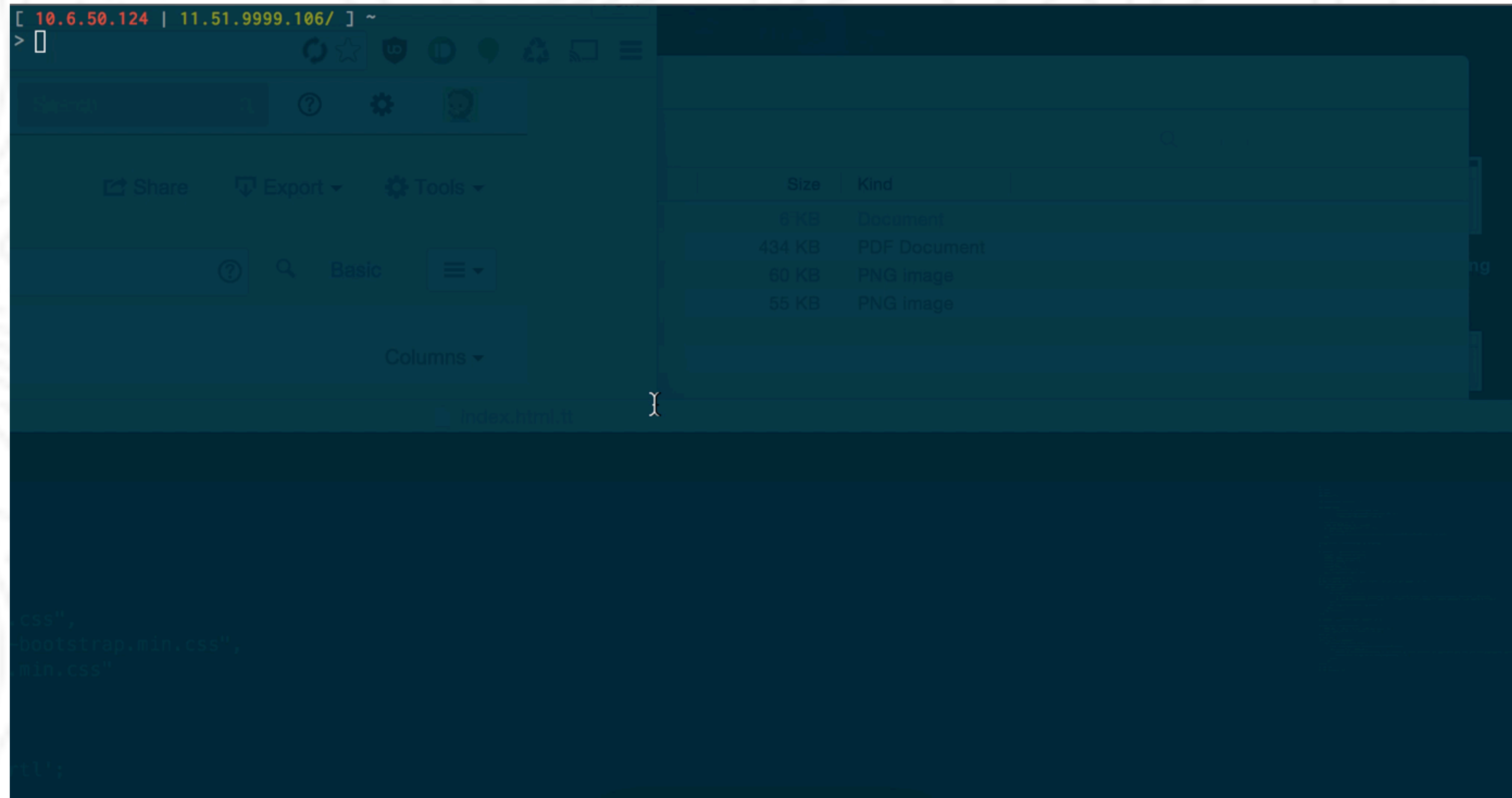
Review

cPanel Default + MPM ITK

Please review the following list of packages you are about to install by provisioning this profile.

ea-apache24-mod_mpm_itk ea-apache24-mod_mpm_prefork ea-apache24-mod_cgi
ea-profiles-cpanel

CLI with Yum



The screenshot shows a terminal window with a dark background. At the top, the terminal prompt is `[10.6.50.124 | 11.51.9999.106/] ~`. Below the prompt, there is a file listing command and its output. The output is a table with two columns: 'Size' and 'Kind'. The table lists four files: a 6 KB Document, a 434 KB PDF Document, a 60 KB PNG image, and a 55 KB PNG image. The terminal also shows some file names like 'index.html' and 'css'.

```
[ 10.6.50.124 | 11.51.9999.106/ ] ~  
> ls -lh  
total 12  
-rw-r--r-- 1 root root 6 KB 2017-07-20 10:00 document.txt  
-rw-r--r-- 1 root root 434 KB 2017-07-20 10:00 pdf-document.pdf  
-rw-r--r-- 1 root root 60 KB 2017-07-20 10:00 png-image.png  
-rw-r--r-- 1 root root 55 KB 2017-07-20 10:00 png-image.png  
-rw-r--r-- 1 root root 1 KB 2017-07-20 10:00 index.html  
-rw-r--r-- 1 root root 1 KB 2017-07-20 10:00 css  
-rw-r--r-- 1 root root 1 KB 2017-07-20 10:00 bootstrap.min.css  
-rw-r--r-- 1 root root 1 KB 2017-07-20 10:00 min.css
```


PHP Handlers in EA3

List available handlers & SAPIs

```
# /usr/local/cpanel/bin/rebuild_phpconf --available
Available handlers: suphp dso cgi none
PHP4 SAPI: not installed
PHP5 SAPI: cgi-fcgi
SUEXEC: available
RUID2: not available
```

Setting PHP handlers

```
# /usr/local/cpanel/bin/rebuild_phpconf 5 none suphp 1
```

PHP Handlers in EA4

List available handlers & SAPIs

```
# /usr/local/cpanel/bin/rebuild_phpconf --available
```

Available handlers:

```
ea-php54: cgi suphp fpm
```

```
ea-php55: cgi suphp fpm
```

```
ea-php56: cgi suphp fpm
```

Available SAPIs:

```
ea-php54: cgi-fcgi dso fpm-fcgi
```

```
ea-php55: cgi-fcgi fpm-fcgi
```

Setting PHP handlers

```
# /usr/local/cpanel/bin/rebuild_phpconf --default=ea-php55 \  
--ea-php54=suphp --ea-php55=cgi --ea-php56=fpm
```

How do I customize it?

EA4 for Geeks by Matt Dees

Location: Lawrence B

4:00 PM - 5:00 PM

MultiPHP Manager

Home » Software » MultiPHP Manager

MultiPHP Manager

System PHP Version

Set the system default PHP version.
Any domain set to the *inherit* value indicates that it does not have its own PHP version explicitly set. Read more about [inherit](#).

ea-php55 [Edit](#)

Set PHP Version per Domain

Select the domains that you wish to change from the table, then apply a PHP version from the list.

PHP Version [Apply](#)

[Q](#)

Page Size [<<](#) [<](#) [>](#) [>>](#)

Selected 0 Showing 1 - 10 of 32 items

<input type="checkbox"/>	Domain	Account ▲	PHP Version
<input type="checkbox"/>	blgq0xzn3rdg4s.test	blgq0xzn3rdg4s	inherit
<input type="checkbox"/>	cwg5yh7ze2.test	btibwio8	ea-php54
<input type="checkbox"/>	f0c8yh2fkc.test	btibwio8	ea-php54
<input type="checkbox"/>	sub.cwg5yh7ze2.test	btibwio8	ea-php54
<input type="checkbox"/>	owzfs1d1oh.test	c0llcklg	inherit
<input type="checkbox"/>	sp46v1y6jq.test	c0llcklg	inherit
<input type="checkbox"/>	sub.owzfs1d1oh.test	c0llcklg	inherit
<input type="checkbox"/>	xksqsq7etq.test	h746ccxi	ea-php55
<input type="checkbox"/>	jbgtndmqja.test	h746ccxi	ea-php55
<input type="checkbox"/>	sub.xksqsq7etq.test	h746ccxi	ea-php55



cPanel

Search Features PERK LOGOUT

MultiPHP Manager

System PHP Version

The system default PHP version is set by the system administrator.
Any domain set to the *inherit* value indicates that it does not have its own PHP version explicitly set. Read more about [inherit](#).

ea-php55

Set PHP Version per Domain

Select the domains that you wish to change from the table, then apply a PHP version from the list.

PHP Version [Apply](#)

[Q](#)

Selected 0 Showing 1 - 1 of 1 items

<input type="checkbox"/>	Domain ▲	PHP Version
<input type="checkbox"/>	perk.test	ea-php56

MultiPHP Manager

- **Fully API driven**
- **PHP System default**
- **.htaccess files**
- **Inheritance**

PHP System Default

System Default PHP Version (by default PHP 56)

```
cpanel.config:php_system_default_version = ea-php56
```

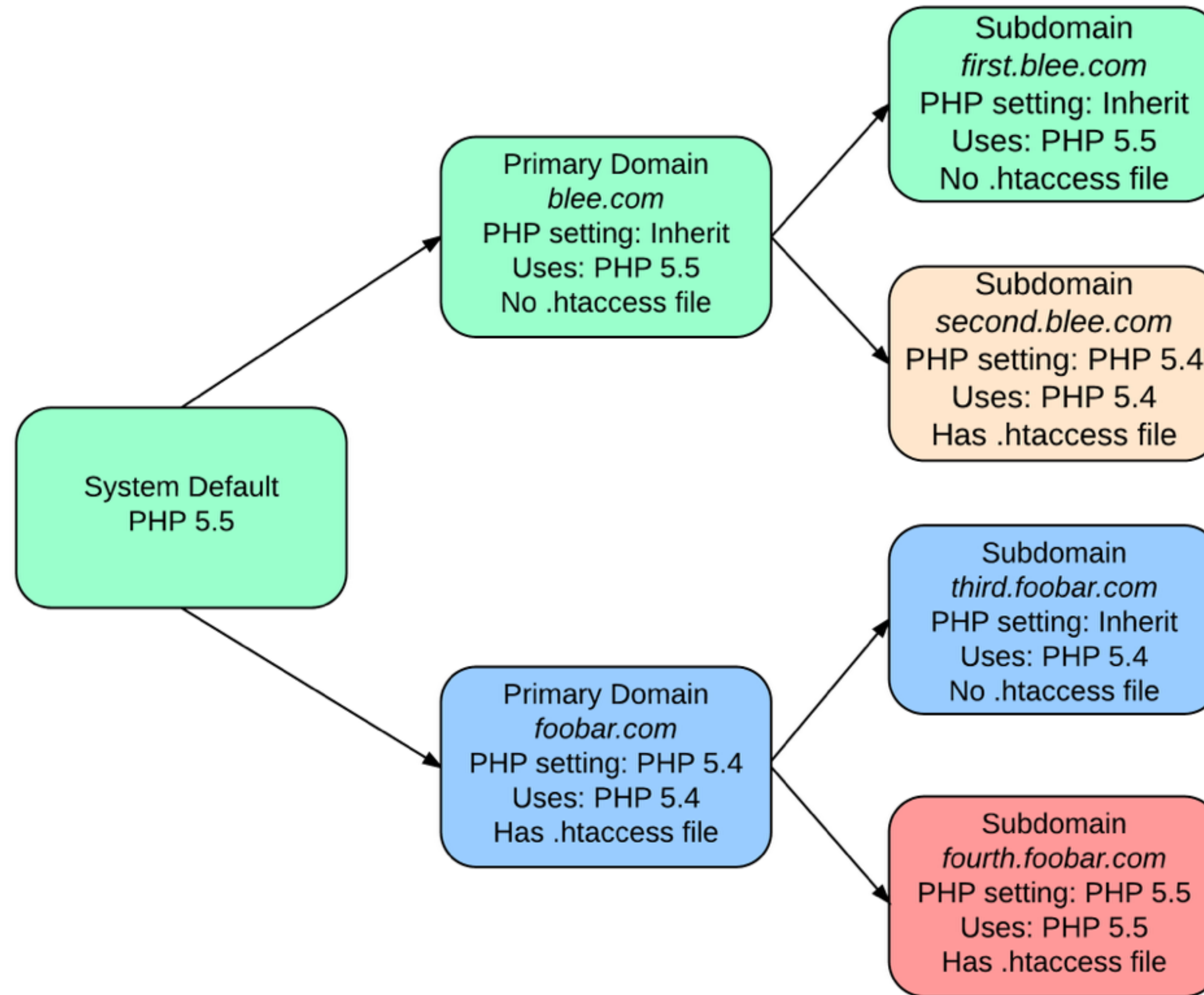
PHP Versions for users held in user data

```
/var/cpanel/userdata/perk/perk.test:phpversion = ea-php55
```

.htaccess files inside document roots

```
# BEGIN cPanel-generated handler, do not edit
<IfModule mime_module>
  # Use ea-php56 as default
  AddType application/x-httpd-ea-php56 .php
</IfModule>
# END cPanel-generated handler
```

Apache & Inheritance



MultiPHP INI Editor

Home » Software » MultiPHP INI Editor

MultiPHP INI Editor

Basic Mode **Editor Mode**

Configure basic settings of a PHP version

ea-php55

PHP Directive	Information	Setting
allow_url_fopen	This option enables the URL-aware fopen wrappers that enable accessing URL object like files. Default wrappers are provided for the access of remote files using the ftp or http protocol, some extensions like zlib may register additional wrappers.	<input type="checkbox"/> OFF Default: 1
allow_url_include	This option allows the use of URL-aware fopen wrappers with the following functions: include(), include_once(), require(), require_once().	<input type="checkbox"/> OFF Default: 0
asp_tags	Enables the use of ASP-like <% %> tags in addition to the usual <?php ?> tags. This includes the variable-value printing shorthand of <%= \$value %>.	<input type="checkbox"/> OFF Default: 0
display_errors	This determines whether errors should be printed to the screen as part of the output or if they should be hidden from the user.	<input type="checkbox"/> OFF Default: 1
enable_dl	This directive is really only useful in the Apache module version of PHP. You can turn dynamic loading of PHP extensions with dl() on and off per virtual server or per directory. The main reason for turning dynamic loading off is security. With dynamic loading, it is possible to ignore all open_basedir restrictions. The default is to allow dynamic loading, except when using safe mode. This feature is deprecated, and will be removed at a future time.	<input type="checkbox"/> OFF Default: 1

cPanel Search Features PERK LOGOUT

MultiPHP INI Editor

Basic Mode **Editor Mode**

Edit PHP INI settings

Select the home directory or a domain's document root to open the corresponding PHP INI file.

perk.test **Save**

Path	PHP Version	Domain
/home/perk/public_html/php.ini	ea-php56	perk.test


```
1 allow_url_fopen = On
2 allow_url_include = Off
3 asp_tags = Off
4 display_errors = Off
5 enable_dl = Off
6 file_uploads = On
7 include_path = ".;/path/to/php/pear"
8 max_execution_time = 30
9 max_input_time = 60
10 max_input_vars = 1000
11 memory_limit = 128M
12 upload_max_filesize = 2M
13
```


MultiPHP INI Editor

- **Fully API driven**
- **Loads php.ini files located in**
 - **home directory (/home/user)**
 - **virtual host document roots (..../www/domain/)**
- **File Editor Only**

MultiPHP INI Editor - Basic

Home » Software » MultiPHP INI Editor

 MultiPHP INI Editor

Basic Mode **Editor Mode**

Configure basic settings of a PHP version

ea-php55

PHP Directive	Information	Setting
allow_url_fopen	This option enables the URL-aware fopen wrappers that enable accessing URL object like files. Default wrappers are provided for the access of remote files using the ftp or http protocol, some extensions like zlib may register additional wrappers.	<input checked="" type="checkbox"/> ON PHP Default: 1
allow_url_include	This option allows the use of URL-aware fopen wrappers with the following functions: include(), include_once(), require(), require_once().	<input checked="" type="checkbox"/> ON PHP Default: 0
asp_tags	Enables the use of ASP-like <% %> tags in addition to the usual <?php ?> tags. This includes the variable-value printing shorthand of <%= \$value %>.	<input type="checkbox"/> OFF PHP Default: 0
display_errors	This determines whether errors should be printed to the screen as part of the output or if they should be hidden from the user.	<input type="checkbox"/> OFF PHP Default: 1
enable_dl	This directive is really only useful in the Apache module version of PHP. You can turn dynamic loading of PHP extensions with dl() on and off per virtual server or per directory. The main reason for turning dynamic loading off is security. With dynamic loading, it is possible to ignore all open_basedir restrictions. The default is to allow dynamic loading, except when using safe mode. This feature is deprecated, and will be removed at a future time.	<input type="checkbox"/> OFF PHP Default: 1

MultiPHP INI Editor - Raw

The screenshot shows the cPanel MultiPHP INI Editor interface. At the top, the cPanel logo is on the left, and search and user options are on the right. The main heading is "MultiPHP INI Editor". Below it, there are two tabs: "Basic Mode" and "Editor Mode". The "Editor Mode" tab is active. The section is titled "Edit PHP INI settings" and includes a sub-instruction: "Select the home directory or a domain's document root to open the corresponding PHP INI file." A dropdown menu shows "perk.test" and a "Save" button is to its right. Below this, a summary table displays the current configuration:

Path	PHP Version	Domain
/home/perk/public_html/php.ini	ea-php56	perk.test

The main area contains a code editor with the following PHP INI settings:

```
1 allow_url_fopen = On
2 allow_url_include = Off
3 asp_tags = Off
4 display_errors = Off
5 enable_dl = Off
6 file_uploads = On
7 include_path = ".:/path/to/php/pear"
8 max_execution_time = 30
9 max_input_time = 60
10 max_input_vars = 1000
11 memory_limit = 128M
12 upload_max_filesize = 2M
13
```

Things to keep in mind

- **Not available for CentOS 5.**
- **Projected EOL for EA3 is April 2017.**
- **EasyApache 3 SLA stays the same in EA4.**
- **Deprecated UIs with EasyApache 4**

CP Conference

Questions

[#cpanelconf](#)



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CP Conference

Win an Apple Watch!
go.cpanel.net/cpconfsurvey