



Advanced Guide to Branding cPanel

David Grega



Reminders

All trademarks within are the sole property of their respective owners.



Introduction

My name is David Grega. I have been handling Sales Support here at cPanel since 2006.

My job responsibilities include knowing the capabilities of our software and ensuring you know about the capabilities of our software. Therefore, if you need to know what our software can do, talk to me.



What Will be Discussed?

- Customizing the appearance of the cPanel interface
- How Plugins can assist with branding.
- Customizing the Webmail interface
- Customizing the Login and Logout screens

➤➤ Deploying Your Customizations



What We Will Be Skipping Today

- Introduction to the Branding Editor
- Internationalization
- In-depth discussion of our APIs
- Detailed discussion of how to create a cPanel Plugin



Basic Terminology

Styles, YUI and API2



What is a Style?

A Style is your company's branding. This can include your logo, customized icons and even a fully customized appearance of the cPanel interface to convey your company's brand and re-enforce brand loyalty.

The branding is stored in what is known as a Style which can then be applied to other users.

Different styles may have different appearances, but will retain the same underlying functionality.



What is YUI?

YUI is the Yahoo User Interface library. This Javascript library is used to power the AJAX components of the graphical user interface.

Knowing how to use YUI is useful if you wish to add additional AJAX functionality to the cPanel interface.

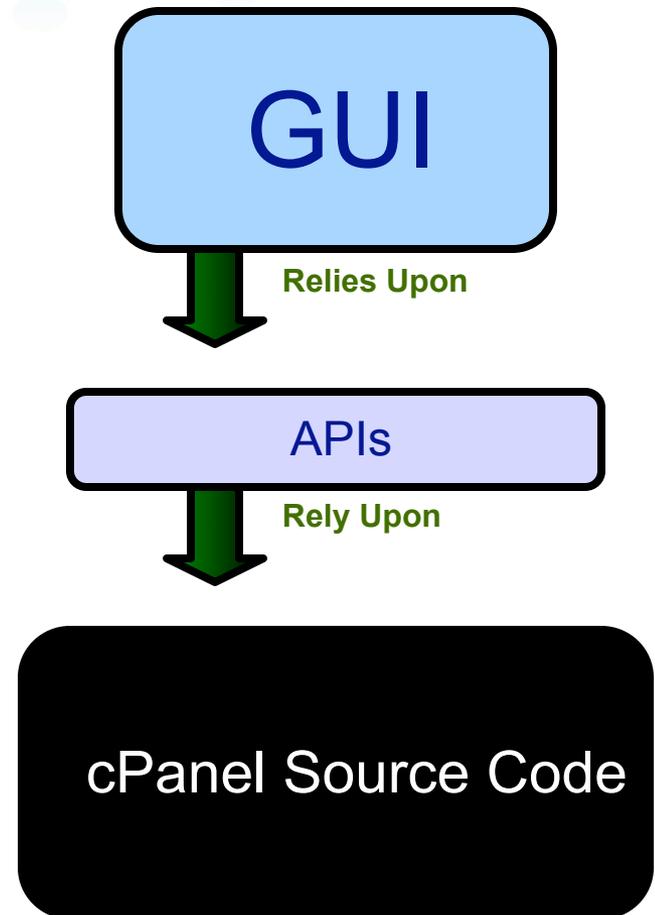
For more information about YUI, refer to their documentation which is available at: [http://
developer.yahoo.com/yui/](http://developer.yahoo.com/yui/)



What is API2?

API2 allows components of the GUI (including Styles) to indirectly interact with the cPanel Source Code.

Customizing API2 calls from the Branding Editor can substantially modify the appearance of the cPanel interface.





Documentation for API2

Official API2 documentation is available on our website at: <http://www.cpanel.net/plugins/api2>.

Last year's "Customizing cPanel" presentation available at <http://www.cpanel.net/support/docs> has an introduction to API2.



What About API1?

Not all functions in the themes have been updated to API2, so there are some API1 functions remaining.

You will recognize API2 functions since they are typically (but not always) of the format `Module::function` rather than `Module="function...`

API1 code can be used wherever API2 code is permitted. However, API2 is significantly preferred.



About Styles



Styles Belong to Resellers

Styles belong to reseller users (“resellers”). Each reseller may have their own styles to reflect their company's brand.

Individual hosting account owners do not have the ability to edit their branding.

Information on how to deploy your styles to all resellers and your other cPanel/WHM servers is later in this presentation.



Where are Custom Styles Stored?

/home/`reseller`/cpanelbranding/`theme`/`style`

- `reseller` is your home directory as a reseller.
- `theme` is the theme you have created a style for, typically it will be `x3`.
- `style` is the name of your style.



Styles are Theme-Specific

Styles only work for the theme for which they are designed.

Today's presentation addresses creating a style for the x3 theme.

However, you cannot design a style for x3 then apply it to another theme such as a theme included with RVskins.



Styles and Theme Managers

Theme Managers such as the Universal Theme Manager built into WHM do not have the ability to manage individual Styles.

Theme Managers can only manage the Themes the Styles rely upon.



Advanced Functionality of the Branding Editor



What Can The Branding Editor Do?

The Branding Editor is a feature of the cPanel interface that allows resellers and root users to edit styles.

The Branding Editor is typically all you need to do for substantially customizing the appearance of cPanel.





Style-Sheet Editor

CSS is a web design standard governing the appearance of web pages.

Since the cPanel interface is merely a series of web pages, you can use CSS on the cPanel interface as you would a typical web page.

This editor allows you to modify the CSS style-sheet of the style and override any other CSS style-sheets.

Edit Branding Style

To customize the cPanel interface, simply edit the displayed logos by editing the CSS, Images,

Basic Branding Editor

[Edit Logos](#)

[Edit Icons](#)

[Edit Header/Footer](#)

[Edit UI](#)

[Edit Preview Images](#)

Advanced Branding Editor

[Edit HTML Pages](#)

 [Edit Style-sheet](#)



How Do We Know What CSS To Edit?

As with most contemporary web-based applications, the CSS code for cPanel is elaborate.

As a result, it may be difficult to determine what CSS code needs to be modified to achieve the effects you desire.

Tools such as Firebug allow you to easily know what CSS code needs editing.



Firebug

Firebug is a Firefox extension that allows you to quickly determine what CSS code governs nearly any object you see on a web page.

This extension will also allow you to experiment with new CSS code before modifying it on the server. As a result, it makes customizing a style's CSS much faster and easier.

This extension can be downloaded at: [http://
www.getfirebug.com/](http://www.getfirebug.com/)

Firebug in Action: Determining CSS Classes

HOME HELP LOGOUT

CPANEL 11

Managing:

MX Entry Maintenance

You can use the MX Entry Maintenance function to change where a domain's email is delivered to. This allows you to have the email from one domain delivered to another domain. Changing your MX entry will change your sites DNS record for MX.

You can use this function to create a backup mail exchanger which will receive mail when the primary exchanger goes down. Once the primary exchanger is back up, mail delivery will resume. To do this, you'll need to add a secondary MX entry for your domain with a lower priority than the primary MX entry. Please be aware the 0 is the highest priority and 10 is the lowest.

Change MX Entry

Inspect Edit p.description <div.body-content <div#content <div#border-efx <div#cpanel <body#cpanel_body <h

Console HTML CSS Script DOM Net Options

```
<div class="clearitsm"/>
<div id="content">
  <script src="/cPanel_magic_revision_1204585440/frontend/x3/yui/util
  <script src="/cPanel_magic_revision_1204585474/frontend/x3/js/x3_op
  <script type="text/javascript">
  <div class="body-content">
    <div id="manage-list">
    <div id="h1Title" class="h1Title">
    <p class="description">
      <h2>Change MX Entry</h2>
    <div class="highlight">
```

Style Layout DOM Options

```
.body-content, h2, combined_optimize... (line 1)
h4, .body-content
P, P,
#latest-visit,
#cpaddoncategory,
.jumpertext {
  font-size: 11px;
}
.description { combined_optimize... (line 1)
  font-style: italic;
  line-height: 14px;
  margin: 12px 0px;
}
```




Using Firebug with the Style-sheet Editor

It's easy to incorporate experimental changes you made to your branding with Firebug into your style!

Go to the Style-Sheet Editor in the Branding Editor and simply type in the CSS code you wish to include. For example, based off our last modification, you would enter:

```
#cpanel {  
    width: 100%;  
}
```



Edit HTML Pages

This portion of the Branding Editor allows you to perform substantial customizations to the appearance of the cPanel interface.

By editing these HTML pages, you can transform the cPanel interface to mimic the appearance of your website.

All of these pages can contain API2 code.

Edit Branding Style

To customize the cPanel interface, simply edit the displayed logos by editing the CSS, Images,

Basic Branding Editor

[Edit Logos](#)

[Edit Icons](#)

[Edit Header/Footer](#)

[Edit UI](#)

[Edit Preview Images](#)

Advanced Branding Editor

 [Edit HTML Pages](#)

[Edit Style-sheet](#)

Edit HTML Pages

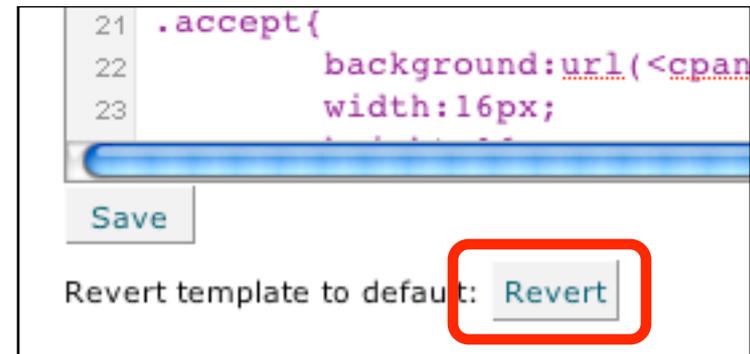
The HTML editor allows you to edit different areas of the cPanel interface. This can be used in combination with the CSS editor and changing the images to skin the interface into any look you desire.

 Current Style **[root]**

DESCRIPTION	FILE NAME (RIGHT CLICK AND SAVE AS...)	EDIT	UPLOAD	RESET TO DEFAULT
cPanel Parsed Inline CSS	cpanel_parsed_css.html	Edit	<input type="text"/> Browse...	Reset
cPanel Parsed Inline CSS (Local)	cpanel_parsed_css_local.html	Edit	<input type="text"/> Browse...	Reset
Getting Started popup Include	getstarted-pop.html	Edit	<input type="text"/> Browse...	Reset
Entry Page	index.html	Edit	<input type="text"/> Browse...	Reset
Option Selection popup Include	optionselect-pop.html	Edit	<input type="text"/> Browse...	Reset
All Sprites include	sprites.html	Edit	<input type="text"/> Browse...	Reset
UI Sprites include	sprites_ui.html	Edit	<input type="text"/> Browse...	Reset
YUI Sprites include	sprites_yui.html	Edit	<input type="text"/> Browse...	Reset
Footer	stdfooter.html	Edit	<input type="text"/> Browse...	Reset
Header Top Section	stdheader.html	Edit	<input type="text"/> Browse...	Reset
Header Middle Section	stdmheader.html	Edit	<input type="text"/> Browse...	Reset
Webmail Login Include	webmaillogininclude.html	Edit	<input type="text"/> Browse...	Reset

Don't Be Afraid To Make Mistakes!

In case you make a mistake and wish to revert back to the code our design team provided, click the **Revert** button on any of the screens where you can edit these HTML pages.





cPanel Branding Tags?

These API2 functions reference files stored **in the path of that particular style** and includes the appropriate HTML content into the page.

```
<cpanel Branding="image (cp) ">
```

- Checks for **image** file **cp** that ends in .gif .png or .jpg

```
<cpanel Branding="text (supportinfo) ">
```

- Includes the **text** stored within **supportinfo.txt**

➤➤ Can insert HTML code here.



Why Use Branding Tags?

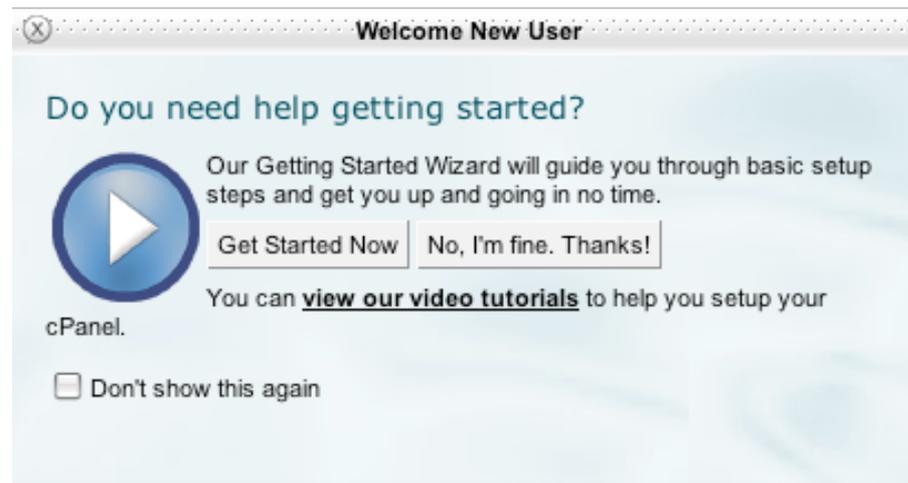
Better Performance!

By placing these files in the style's directory and calling them with cPanel Branding tags, cPanel can cache these into sprites and thus significantly improve the performance of the x3 interface.

As a result, it is recommended you use cPanel Branding Tags rather than directly link to existing images on your website.

Getting Started Popup Include

This is the pop-up your users see the first time they login to the cPanel interface.



One common reason for editing this page is to display the EULA the first time a customer logs into their cPanel interface.

Entry Page

The page users see when they first login.



Entry Page – Custom Stats

To hide information from your users, simply remove it from the appropriate API call. Removing this red text will hide OS information.

```
<?cp StatsBar::stat([tr class="row-%"[td
width="40\{percent}" align="left"][span
class="stat-head">%[/span][td align="left"
class="truncate" ]%[/td][
tr],rowtype,item,value) display=hostingpackage|
shorthostname|cpanelversion|cpanelrevision|
theme|apacheversion|phpversion|mysqlversion|
machinetype|operatingsystem|sharedip|
dedicatedip|sendmailpath|perlpath|
kernelversion,rowcounter=mainstats ?>
```

Option Selection Popup Include

This is the pop-up users see the first time they click on the File Manager icon.



Footer

Stores the code for the footer of the page.

```
1 <!-- START stdfooter.html -->
2 <div class="clearitmed"> </div>
3 </div><!--Close Content Div-->
4
5 <!--Start Footer-->
6     <div id="heading-bottom_bg" class="spriteheading_bg footer">
7         <ul class="links" >
8             <li><a href="<cpanel printvar="dprefix">index
9             <li><span class="footer" style="font-size:18
10            <li><a href="<cpanel printvar="dprefix">trade
11            <li><span class="footer" style="font-size:18
12            <cpanelif !$CPVAR('hidehelp')>
13            <li><a onClick="show_help(); return false;" target="_blank" h
14            </cpanelif>
15            <li><span style="font-size:18px;">•</span></li>
16            <li><a href="http://www.cpanel.net/docs/cpane
17            <li><span style="font-size:18px;">•</span></li>
18            <li><a href="/logout/" class="bottomlink"><cp
19
20         </ul>
21     </div>
22 <!--End Footer-->
23 </div><!--Close border-efx div-->
24 </div><!--Close cpanel div-->
```

Header Top Section

Stores the code for the page up to the `</head>` tag.

```
1 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3
2 <html>
3 <head>
4 <title><cpanel langprint="cPanelX"></title>
5 <cpanel relinclude="charset.html">
6 <link rel="shortcut icon" href="<cpanel Branding="image(favicon)">" type="ima
7 <link rel="stylesheet" type="text/css" href="<cpanel MagicRevision="uri("css/
8 <!-- mobile css removed as we auto switch to the mobile branding pkg -->
9 <style>
10 /*Updated*/
11 <cpanel Branding="include(sprites_ui.html)">
12 <cpanel Branding="include(sprites_yui.html)">
13 </style>
14 <cpanel Branding="include(cpanel_parsed_css.html)">
15 <cpanel Branding="include(cpanel_parsed_css_local.html)">
16 <link rel="stylesheet" type="text/css" href="<cpanel Branding="file(local.css
17 <!--[if gt IE 6]>
18 <link rel="stylesheet" type="text/css" href="<cpanel MagicRevision="uri("css/
19 <![endif]-->
20 <!--[if lt IE 7]>
21 <link rel="stylesheet" type="text/css" href="<cpanel MagicRevision="uri("css/
22 <![endif]-->
23 <cpanel Branding="include(stdmheader.html)">
```

Header Middle Section

Controls the top visible portion of the page.



Webmail Login Include

What a user sees when they click on “Webmail” via the cPanel interface.

Useful to modify if you are hosting mail on an unsupported external server.

Web Mail

Webmail allows you to check your email from a web browser as opposed to a desktop mail application such as Outlook Express or Thunderbird. This means that you can check your email from any web browser. Please make sure to log out when checking your email on public computers so that other people cannot read your email.

You can check the webmail for any account by logging into <https://davidgrega.cpanel:2096> with the full username (user@domain.com) and password for the email account or by clicking on the below icon.



Go to [Secure Webmail Login](#)

To check your mail through a desktop application you will need to configure the application. Your mail server is most likely mail.davidgrega.cpanel. You will need to use the full username (user@domain.com) and password when setting up your account in your desktop mail application. It is a good idea to check "My Server Requires Authentication" as well as most mail servers require this option.



Deploying Your Custom Styles



Copying Styles to Another Server

Branding Editor

The Branding Editor allows you to edit the header and footer images in each theme as well as the main page icons for the style. To do so, you should create a new branding style and then edit it to add your custom images. You can also make an archive of all the images you wish to upload and upload it below.

 Video Tutorial

 Create or Upload Branding

 Download or Delete Branding

The Branding Editor provides utilities to download your style as a file and upload a style created on another server to your server.



Deploying Styles Server-Wide

`/usr/local/cpanel/base/frontend/branding/theme/style/`

- Copying your styles here will make the style available to all accounts on the server, where `theme` is the theme the style is designed for (typically x3) and `style` is the name of your style.
- This eliminates the need to download then upload the style to all of your resellers' accounts.



Edit Preview Images

This is especially useful if you intend to distribute your styles.

Preview images are not automatically generated.

Here, you can upload screen captures of what your theme looks like. This will show users in the style selection screen what their interface will look like before they select your style.

Edit Branding Style

To customize the cPanel interface simply edit the displayed logo by editing the CSS, Images, H

Basic Branding Editor

[Edit Logos](#)

[Edit Icons](#)

[Edit Header/Footer](#)

[Edit UI](#)

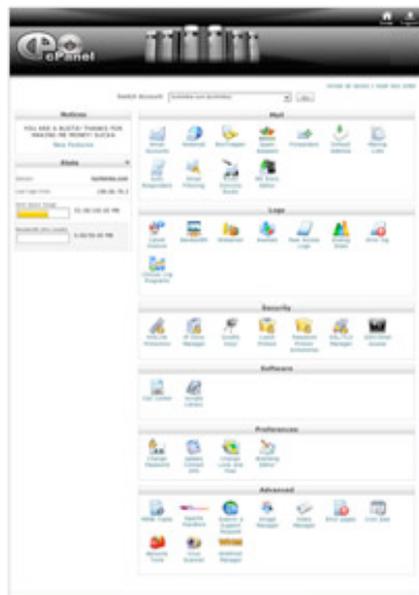
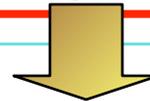
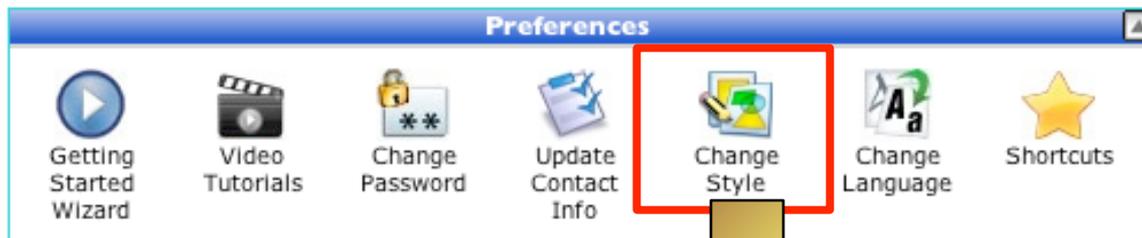
 [Edit Preview Images](#)

Advanced Branding Editor

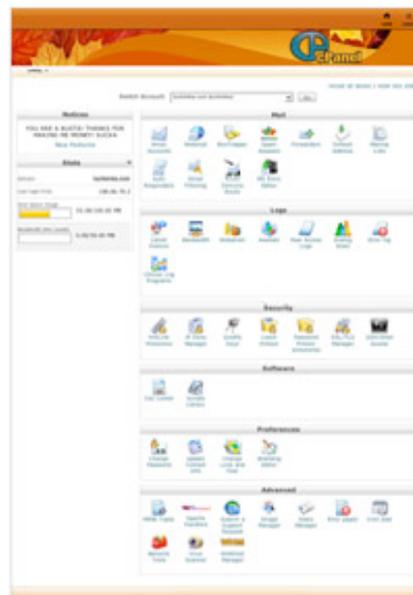
[Edit HTML Pages](#)

[Edit Style-sheet](#)

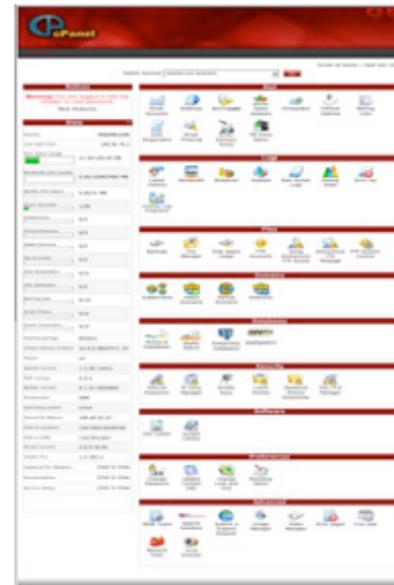
Use of Preview Images



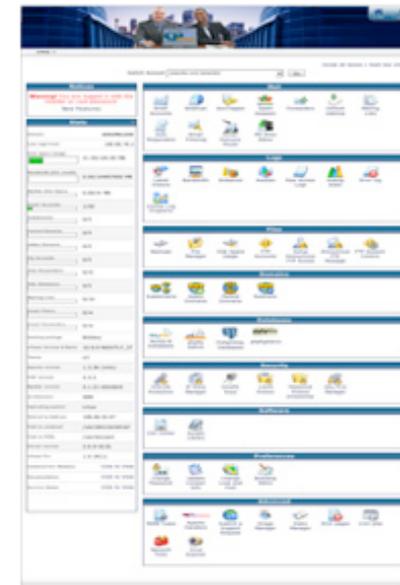
black_ice



falltheme



crimson_smoke



business2business

Forcing the Use of Your Style

Simply apply your style to all users, then remove the ability for them to use the “Change Style” feature from Feature Manager.

This is useful if your style reflects branding that would not be offered in other styles.





Plugins and Branding



Simply Adding a Hyperlink?

If you simply want to add a hyperlink with an icon to the cPanel interface, create a cPanel Plugin. It is very easy with our Plugin Generator!

You can find the Plugin Generator on our website at:
<http://www.cpanel.net/plugins/devel/installgen.html>

cPanel Plugins Install File Generator

Plugin Name:

Name of the Plugin.

Module Description:

Description of the module (used for branding).

Feature Manager?

If enabled, the feature will be an option in the feature manager.

Display Name:

Name displayed in the cPanel Interface.

Display Group:

What cPanel icon group the icon should appear in. (Currently only in x3).

Display Order:

Order within the group.

Access URL:

URL used to access the plugin in cPanel (relative to /usr/local/cpanel/base/frontend/<theme_name>/).

Anchor Content:

Data in this field will be included in the anchor tags, you can use something like target="_blank" etc.

On Click Event:

Data in this field will be included in the anchor tags, you can use something like —JavaScript_HERE_; return false;

Plugin Icon:

Icon to be displayed in cPanel (jpg or png only).



Explanation of the Javascript Code

```
window.location='http://example.com/billing';return false;
```

This Javascript code goes in your On Click Event content.

The `window.location` indicates where you want the user to go when the icon is clicked.

The `return false` simply tells your web browser to go to that location instead of to the path we said was the plugin path.



Installing Your Plugin

Simply follow these instructions to install your plugin:

<http://www.cpanel.net/plugins/develop/install.html>

Be sure to follow the instructions carefully and execute those commands as root.

You can execute the commands as sudo, but be sure to execute every command as sudo if you do.



Adding Additional Functionality

Plug-ins can be used for purposes beyond adding simple hyperlinks.

You can add entirely new pages and functionality to the cPanel interface using Plug-ins.



Why Plug-ins are Preferred

Plug-ins are style and theme independent. This means the same functionality will be available if you use the themes bundled with cPanel/WHM or if you use a third party theme such as those bundled with RVSkins.

This theme independence also means your plug-ins are likely to continue functioning without maintenance for years to come.



Changing and Removing Functionality in the cPanel Interface



Why Remove Functionality?

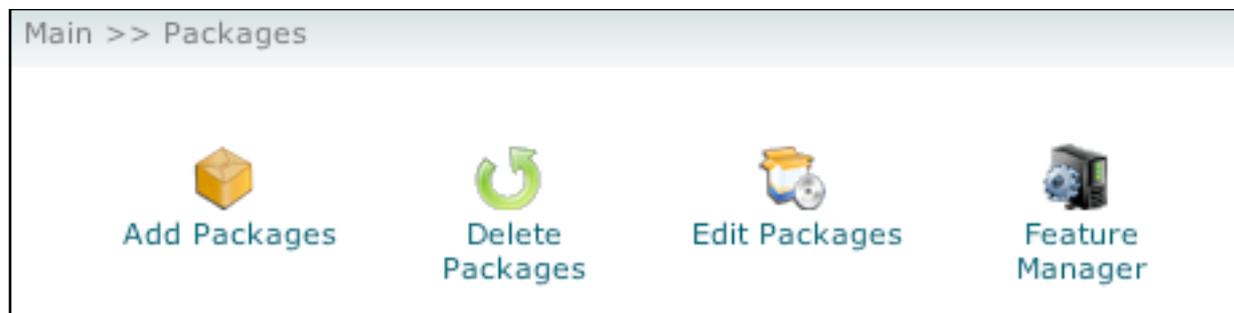
Some hosting providers prefer to charge for specific functionality. For example, offering very inexpensive hosting with limited features for those who are new to running their own website.

Sometimes technical limitations of one's unique setup requires the removal of certain functionality to prevent their users from becoming confused.

Removing Functionality

You can disable Plug-ins as well as native functionality of cPanel/WHM via Feature Manager by using Feature Lists.

Feature Lists can remove functionality on a per-package basis or on a server-wide basis.





Feature Lists?

Feature Lists allow you to turn any icon in the cPanel interface on or off individually.

- Server Status Viewer
- Change Language
- SpamAssassin
- SpamAssassin Spam Box
- SSH Connection Window
- SSL Host Installer
- SSL Manager
- Statistics Program Manager
- Choose Log Programs



Server-Wide Feature Lists

There are 2 special Feature Lists that control available functionality on a server-wide basis:

Disabled

If something is disabled in the “Disabled” feature list, then it is disabled for all users.

Default

Governs the functionality available to users that do not have a Feature List assigned to the Package associated with their account.

Package-Specific Feature Lists

You can also create your own Feature Lists using Feature Manager.

Add a New Feature List

Feature List Name:

Edit a Feature List

Delete a Feature List

Your own Feature Lists can then be associated with Packages.



Applying Feature Lists to Packages

Feature Lists cannot be applied to individual accounts, they must be applied to Packages.

You can do this when editing or creating a Package in the WHM interface:

A screenshot of the WHM interface showing a form for editing or creating a package. The form has three rows, each with a label on the left and a dropdown menu on the right. The first row is partially visible with the label 'Package Name' and a dropdown showing 'x3'. The second row has the label 'Feature List' and a dropdown showing 'davidgre_pma'. The third row has the label 'Language' and a dropdown showing 'SimplifiedChinese'.

Package Name	x3
Feature List	davidgre_pma
Language	SimplifiedChinese



Customizing the Webmail Interface



Changing Available Webmail Clients

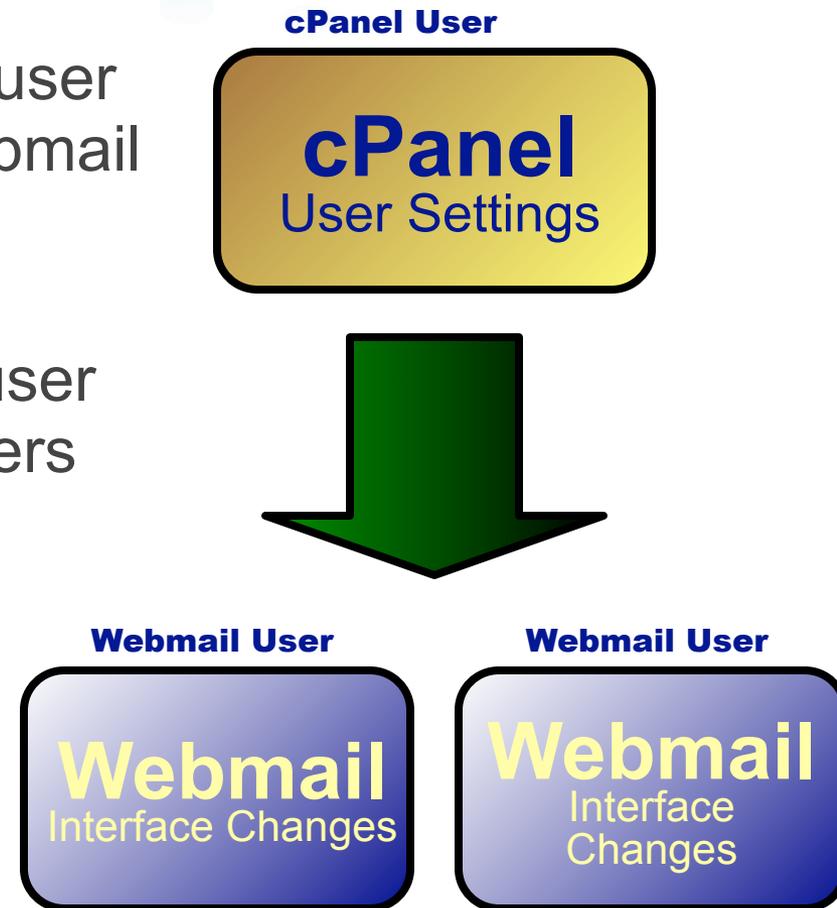
If you wish to control which webmail clients you want your users to be able to use, simply uncheck the mail clients you do not wish for them to use in the WHM interface under Tweak Settings.

BoxTrapper Spam Trap	<input type="checkbox"/>
Horde Webmail	<input checked="" type="checkbox"/>
Mailman	<input checked="" type="checkbox"/>
RoundCube Webmail	<input checked="" type="checkbox"/>
SpamAssassin Spam Filter	<input checked="" type="checkbox"/>
SpamAssassin Spam Box delivery for messages marked as spam (user configurable)	<input checked="" type="checkbox"/>
SquirrelMail Webmail	<input checked="" type="checkbox"/>
Add the mail_prefix for mailman urls (ie http://mail.domain.com/mailman)	<input checked="" type="checkbox"/>

Webmail Interface Inheritance

- Features disabled for a cPanel user will also be disabled for any webmail users under that cPanel user.

»» The style used by the cPanel user is also used by any webmail users owned by that cPanel user





Custom Login and Logout Themes



Not to be Confused With...

... embedding a cPanel, WHM or Webmail login onto your existing website.

If you desire to do that, please view the sample code available on our website at:

www.cpanel.net/cpanel-login.phps



Common Mistake

**DO NOT
SIMPLY EDIT AN EXISTING THEME!**

Your customizations will be overwritten during the next cPanel update if you do this.

Always create a new theme rather than modify a theme bundled with cPanel/WHM.



Login Themes

default theme: `cpanel`

Stored in: `/usr/local/cpanel/base/unprotected/
cpanel`

To create your own theme, simply copy our existing theme (cpanel) and paste it into a similar directory, for example:

`/usr/local/cpanel/base/unprotected/mycpanel`



Setting the Login Theme

You can set the login theme to use via Tweak Settings.

Main >> Server Configuration >> Tweak Settings

Tweak Settings

Display

The login theme to display for cPanel Login. See the [Universal Theme Manager](#) for options. If you are posting to /login/ you can include "login_theme" as a uri/form variable to overwrite this setting on a per case basis.

cpanel



Login Page

Users will only see the login page visible if you disable HTTP Authentication in Tweak Settings.

HTTP Authentication is more secure, hence it is the default setting.

At the theme level, there are different files that govern the login pages for the cPanel, WHM and Webmail interfaces.

build. All files are stored on the server.

Disable Http Authentication for cPanel/WebMail/WHM Logins (forces cookie authentication)





Common File Suffixes

- _cpaneld
Used when logging into cPanel.
- _whostmgrd
Used when logging into WHM.
- _webmaild
Used when logging into the webmail interface.

./	header_webmaild.html	resetpass_resetform_cpanel.html
../	header_whoostmgrd.html	resetpass_resetformheader_cpanel.html
broken.css	images/	resetpass_resetform_nouser_cpanel.html
broken.gif	js/	resetpass_suspended_cpanel.html
broken.html	login_cpanel.html	securitypolicy_footer.html
cpanel/	login_webmaild.html	securitypolicy_header.html
davidg/	login_whoostmgrd.html	style.css
favicon.ico@	passbar@	test.php
fav_old.ico	policy.css	yui@
footer.html	resetpass_header_cpanel.html	
header.html	resetpass_reset_cpanel.html	

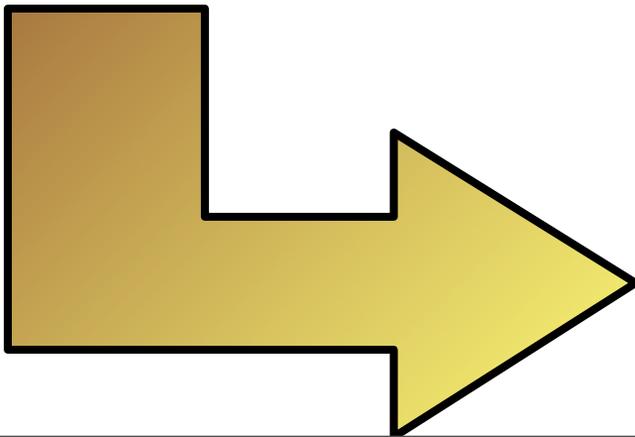


login files

The code is displayed within the context of the Login theme.

These pages should only contain the code for the actual login form.

```
<form action="/login/" method="POST">
<input type="hidden" name="login_theme" value="%login_theme%">
<table width="200" class="login" cellpadding="0" cellspacing="0">
<tr>
<td align="left"><b>Login</b></td>
<td>&nbsp;</td>
</tr>
<tr>
<td>Username</td>
<td><input type="text" name="user" autocomplete="off" size="16"></td>
</tr>
<tr class="row2">
<td>Password</td>
<td><input type="password" name="pass" size="16"></td>
</tr>
<tr>
<td colspan="2" align="center"><input type="submit" value="Login" /></td>
</tr>
</table>
</form>
```





Logout Page

Content of logout messages are controlled by the cPanel/Webmail/WHM interfaces.

The layout of logout pages governed by the login theme.



Logout URL

If you simply wish to redirect users to one of your web pages upon logging out, a custom theme is not necessary.

Simply change the **Logout URL** setting in Tweak Settings to redirect users to your web page upon logging out.

SSL Certificate Name Hostname Origin Domain Name

Redirect user to the following URL upon logout of the cPanel interface. A blank value specifies the default logout page.

Security



header files and footer file

Essentially these files work to wrap code around whatever message may be displayed by an individual file.

These files provide the overall theming of the Login theme.

This is the core of what will make your login theme look unique.



Headers and Footers explained

Header

All the code that comes **before** the message being displayed by the Login interface.

Footer

All the code that comes **after** the message being displayed by the Login interface.



header files and footer file





Custom CSS and Images

You can edit the CSS for the Login theme by editing
`style.css`

Custom images may be placed in the images folder of
your Login theme.

When images are presented to the end-user, their
browser will need to be instructed to look for the
images in the relative directory of `unprotected/
images` (not `images`).



Deploying Your Custom Login Theme Across cPanel/WHM Servers

This is a very easy process!

Simply copy the files to your other cPanel/WHM server(s) and set the login theme via Tweak Settings on each server appropriately then everything will work properly.



Closing Remarks



Summary

With Styles, Plugins and WHM settings, you have substantial control over the appearance of the cPanel and Webmail interfaces.



Coming Soon

Improved WHM Theming coming in version 12.



Questions?