

How to Subclass a WordPress Theme

Creating WordPress Child Themes for
Fun and Profit

Version 2.0

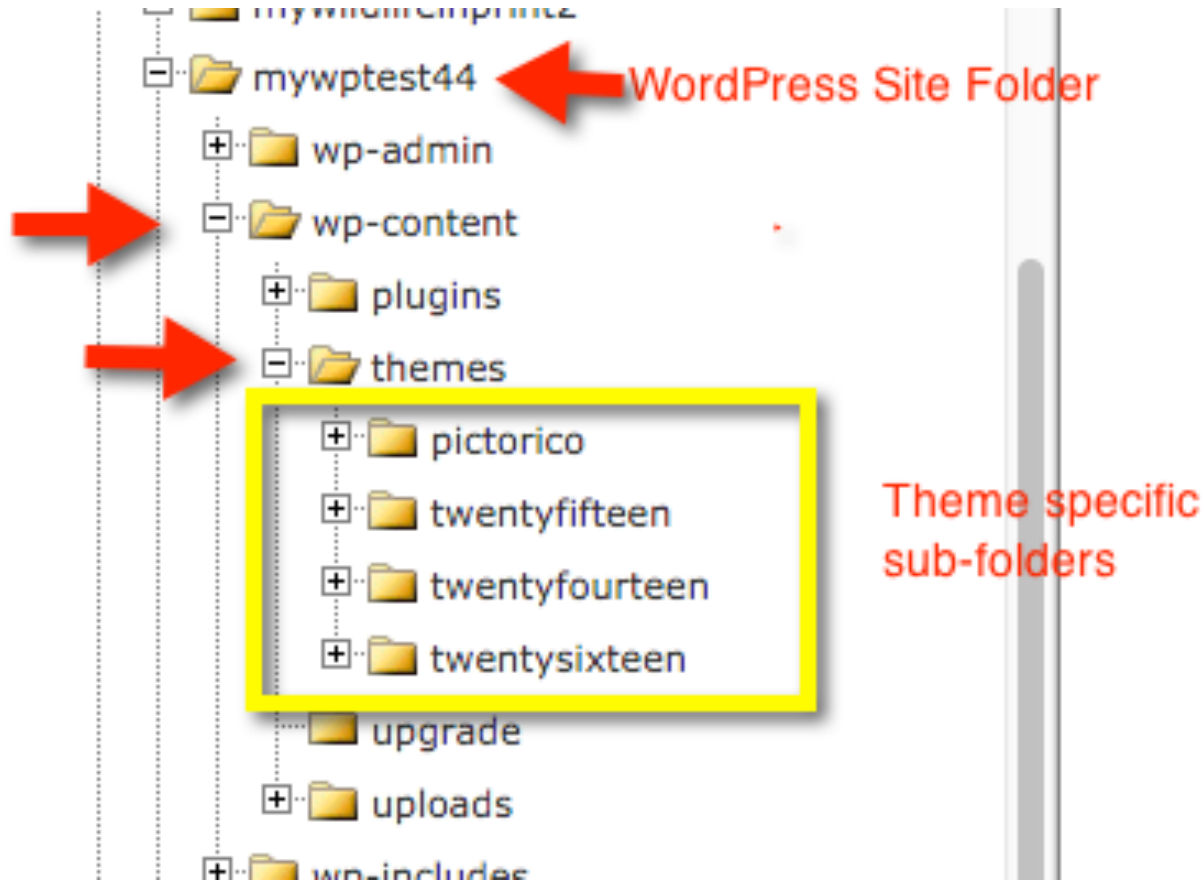
What is a WordPress Theme?

- WordPress Themes are a collection of files that work together to create the design and functionality of a WordPress site.
- Each Theme may be different, offering many choices for site owners to instantly change their website look.

Basic WordPress Theme Anatomy

- WordPress Themes live in subdirectories of the WordPress themes directory (wp-content/themes/ by default).
- The Theme's subdirectory holds all of the Theme's stylesheet files, template files, and optional functions file (functions.php), JavaScript files, and images.
- For example, a Theme named "test" would reside in the directory wp-content/themes/test/.

Theme files reside in theme specific sub-folders in the [wp-content/themes] folder



Theme folders contain subfolders and files.

The screenshot shows a web browser interface displaying a file directory structure for a WordPress theme. The left sidebar shows a tree view of folders, with 'twentyfifteen' selected under 'wp-content/themes'. The main area displays a table of files and folders for 'twentyfifteen'.

Name	Size	Last Modified (CST)	Type	Perms
css	4 KB	Dec 18, 2015 3:06 PM	httpd/unix-directory	0755
genericons	4 KB	Dec 18, 2015 3:06 PM	httpd/unix-directory	0755
inc	4 KB	Dec 18, 2015 3:06 PM	httpd/unix-directory	0755
js	4 KB	Dec 18, 2015 3:06 PM	httpd/unix-directory	0755
languages	4 KB	Dec 18, 2015 3:06 PM	httpd/unix-directory	0755
404.php	809 bytes	Dec 16, 2014 1:00 PM	application/x-httpd-php	0644
archive.php	1.87 KB	Dec 11, 2014 10:24 AM	application/x-httpd-php	0644
author-bio.php	1.11 KB	Dec 16, 2014 1:00 PM	application/x-httpd-php	0644
comments.php	1.44 KB	Dec 16, 2014 1:00 PM	application/x-httpd-php	0644
content-link.php	1.71 KB	Dec 16, 2014 1:00 PM	application/x-httpd-php	0644
content-none.php	1.14 KB	Dec 16, 2014 1:00 PM	application/x-httpd-php	0644
content-page.php	1.09 KB	Dec 16, 2014 1:00 PM	application/x-httpd-php	0644
content-search.php	1.08 KB	Dec 16, 2014 1:00 PM	application/x-httpd-php	0644
content.php	1.66 KB	Dec 16, 2014 1:00 PM	application/x-httpd-php	0644
footer.php	823 bytes	Dec 18, 2015 3:06 PM	application/x-httpd-php	0644
functions.php	12.13 KB	Jun 18, 2015 3:51 PM	application/x-httpd-php	0644
header.php	1.76 KB	Jan 15, 2015 11:10 PM	application/x-httpd-php	0644
image.php	2.87 KB	Dec 16, 2014 1:00 PM	application/x-httpd-php	0644
index.php	1.72 KB	Dec 11, 2014 10:24 AM	application/x-httpd-php	0644
page.php	902 bytes	Nov 19, 2014 8:28 PM	application/x-httpd-php	0644
readme.txt	3.07 KB	Dec 6, 2015 10:10 PM	text/plain	0644
rtl.css	12.09 KB	Sep 26, 2015 10:49 AM	text/css	0644
screenshot.png	367.8 KB	Oct 28, 2014 4:23 PM	image/x-generic	0644
search.php	1.37 KB	Dec 16, 2014 1:00 PM	application/x-httpd-php	0644
sidebar.php	1.28 KB	Nov 19, 2014 8:28 PM	application/x-httpd-php	0644
single.php	1.49 KB	Dec 12, 2014 6:37 PM	application/x-httpd-php	0644
style.css	94.9 KB	Dec 6, 2015 10:10 PM	text/css	0644

A red arrow points to the 'style.css' file at the bottom of the list, with the text 'the style.css file' next to it.

WordPress Themes typically consist of three main types of files

- The stylesheet called `style.css`, which controls the presentation (visual design and layout) of the website pages.
- WordPress template files which control the way the site pages generate the information from your WordPress database to be displayed on the site.
- The optional functions file (`functions.php`) as part of the WordPress Theme files.

WordPress Themes Typical File Extensions

- **.php**
- **.js** – Java Script files
- **.txt**– Text files
- **.css** – Cascading Style Sheet files
- **.pot** – Internationalization (i18n) Files
- **.png** – Image files
 - Portable Network Graphics (PNG /'pɪŋ/) is a raster graphics file format that supports lossless data compression

WordPress Themes Typical File Extensions

- **.ttf** – True Type Font files (raster font)
- **.eot** – Open Type Font Embedded file
- **.svg**– Scalable Vector Graphics file
 - XML-based vector image format for two-dimensional graphics with support for interactivity and animation
- **.woff** – Web open font files
 - WOFF files are Open-Type or TrueType with compression and additional metadata.

Theme Stylesheet

- In addition to the theme CSS style information, **style.css** provides details about the Theme
 - These details are in the form of comments.
 - The WordPress system requires that the stylesheet ([style.css](#)) provide details about the Theme in the form of comments.
- No two Themes are allowed to have the same details listed in their comment headers.
- If you make your own Theme by copying an existing one, make sure you change the detail information before submitting the stylesheet (style.css) to the WordPress site theme folder.

The following is an example of the first few lines of the stylesheet, [**style.css**] called the **stylesheet header** for the Theme "**Twenty Thirteen**"

```
/*
Theme Name: Twenty Thirteen
Theme URI: http://wordpress.org/themes/twentythirteen
Author: the WordPress team
Author URI: http://wordpress.org/
Description: The 2013 theme for WordPress takes us back to the blog, featuring a full range of post formats, each
displayed beautifully in their own unique way. Design details abound, starting with a vibrant color scheme and
matching header images, beautiful typography and icons, and a flexible layout that looks great on any device, big
or small.
Version: 1.0
License: GNU General Public License v2 or later
License URI: http://www.gnu.org/licenses/gpl-2.0.html
Tags: black, brown, orange, tan, white, yellow, light, one-column, two-columns, right-sidebar, flexible-width,
custom-header, custom-menu, editor-style, featured-images, microformats, post-formats, rtl-language-support,
sticky-post, translation-ready
Text Domain: twentythirteen

This theme, like WordPress, is licensed under the GPL.
Use it to make something cool, have fun, and share what you've learned with others.
*/
```

WordPress Template Files List

- The following 3 slides are a list of the Theme files recognized by WordPress.

WordPress Template Files List -1-

- **style.css**
 - The main stylesheet. This must be included with your Theme, and it must contain the information header for your Theme.
- **rtl.css**
 - The rtl stylesheet. This will be included automatically if the website's text direction is right-to-left. This can be generated using the RTLer plugin.
- **index.php**
 - The main template. If your Theme provides its own templates, index.php must be present.
- **comments.php**
 - The comments template.
- **front-page.php**
 - The front page template.
- **home.php**
 - The home page template, which is the front page by default. If you use a static front page this is the template for the page with the latest posts.

WordPress Template Files List -2-

- `single.php`
 - The single post template. Used when a single post is queried. For this and all other query templates, `index.php` is used if the query template is not present.
- `single-{post-type}.php`
 - The single post template used when a single post from a custom post type is queried. For example, `single-book.php` would be used for displaying single posts from the custom post type named "book". `index.php` is used if the query template for the custom post type is not present.
- `page.php`
 - The page template. Used when an individual Page is queried.
- `category.php`
 - The category template. Used when a category is queried.
- `tag.php`
 - The tag template. Used when a tag is queried.
- `taxonomy.php`
 - The term template. Used when a term in a custom taxonomy is queried.

WordPress Template Files List -3-

- **author.php**
 - The author template. Used when an author is queried.
- **date.php**
 - The date/time template. Used when a date or time is queried. Year, month, day, hour, minute, second.
- **archive.php**
 - The archive template. Used when a category, author, or date is queried. Note that this template will be overridden by category.php, author.php, and date.php for their respective query types.
- **search.php**
 - The search results template. Used when a search is performed.
- **attachment.php**
 - Attachment template. Used when viewing a single attachment.
- **image.php**
 - Image attachment template. Used when viewing a single image attachment. If not present, attachment.php will be used.
- **404.php**
 - The 404 Not Found template. Used when WordPress cannot find a post or page that matches the query.

Never Make Changes to a Themes Files

- Never make changes to any baseline theme file
- Its tempting to fix a theme display problem by editing the theme
- What you have to remember is that the theme will get updated one day, and when that update occurs, your changes will be overwritten and you will lose all your changes
- **To make changes to a Theme**, subclass the theme, creating child theme and make changes to the **(sub-classed) child theme**

Why create a Child Theme?

- To create a unique look for your WordPress site.
- To take advantage of templates, template tags, and the WordPress Loop to generate different website results and looks.
- To provide alternative templates for specific site features, such as category pages and search result pages.
- To quickly switch between two site layouts, or to take advantage of a Theme or style switcher to allow site owners to change the look of your site.

Benefits of Child Themes

- It separates the presentation styles and template files from the system files **so the site will upgrade without drastic changes to the visual presentation of the site.**
- It allows for customization of the site functionality unique to that Theme.
- It allows for quick changes of the visual design and layout of a WordPress site.
- It removes the need for a typical WordPress site owner to have to learn CSS, HTML, and PHP in order to have a great-looking website.


Benefits of Child Themes


- It separates the presentation styles and template files from the system files **so the site will upgrade without drastic changes to the visual presentation of the site.**
 - Another way to say this is,
 - if you make changes to a theme (hack the theme) and then you apply a theme upgrade, **you will lose all your changes (hacks) in the blink of an eye**
 - And even if you saved your changes in a file, you still have to reapply them to the theme
 - And if the theme code changes, you may have to re-imagine, re-design and recode a different hack solution

At least 2 ways to make a WordPress Child theme

1. Create the files yourself, with an editor and copy and paste
 - If you do create the child theme files yourself, avoid starting or using numbers in the child theme name
 - Numbers in a theme name prevents the theme from being displayed in the available themes list on the WordPress site.
2. Use a WordPress Plugin
 - There are several plugins that can help you create child themes.

Creating a WordPress Child Theme Manually

 **WORDPRESS.ORG**

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Plugin Directory

Username Password [Log in](#) (forgot?) or [Register](#)

Search Results **Featured** Popular Favorites Beta Testing Developers **Keyword**

Showing 1-30 of 633 plugins 1 2 ... 22 Next »



Child Theme Configurator

Create child themes and customize styles, templates and functions. Enqueues stylesheets and web fonts. Handles rgba, vendor-prefixes and more.


By: lilaeamedia.

★★★★★ (100)

70,000+ active installs

Last Updated: 5 months ago

Compatible up to: 4.4.2



One-Click Child Theme

Adds a Theme option to any active theme allowing you to make a child theme.

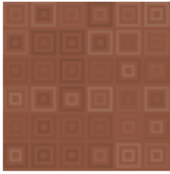
By: Terry Chay.

★★★★★ (53)

70,000+ active installs

Last Updated: 10 months ago

Compatible up to: 4.1.10



Child Theme Creator by Orbisius

Create Child Themes quickly and easily from any theme that you have currently installed on your site/blog.

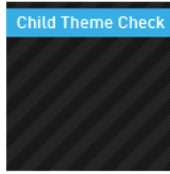
By: Svetoslav Marinov and Orbisius.

★★★★★ (23)

20,000+ active installs

Last Updated: 2 months ago

Compatible up to: 4.4.2



Child Theme Check

Warns you about outdated template files in your child theme and shows a diff view of the changes between parent and child theme template.

By: Torsten Landsiedel, drivingrallye, fstaude, Caspar Hübinger, and Hinnerk Altenburg.

★★★★★ (2)

300+ active installs

Last Updated: 6 months ago

Compatible up to: 4.3.3

Creating a WordPress Child Theme Manually



Child Theme Wizard

Creates a child theme with one click and lets you customise its options.

By: Jay Versluis.



5,000+ active installs

Last Updated: 4 months ago

Compatible up to: 4.4.2



Easy Child Theme Creator

Allow people to create a child theme with best practices

By: Ashok G.



200+ active installs

Last Updated: 9 months ago

Compatible up to: 4.2.7



Child Themes

Create a child theme really easily from any installed theme.

By: Chris Taylor.



300+ active installs

Last Updated: 11 months ago

Compatible up to: 4.2.7



Wpp Easy Child Generator

A plugin that allows to create Child Theme of your installed wordpress theme

By: Piyushkapoor786.



20+ active installs

Last Updated: 8 months ago

Compatible up to: 4.2.7

Creating a WordPress Child Theme Manually



BNS Theme Add-Ins

Extend the capabilities of WordPress Parent-Themes and Child-Themes

By: Edward Caissie.



20+ active installs

Last Updated: 4 months ago

Compatible up to: 4.4.2



Childify Me

Create a child-theme from the Theme Customizer.

By: d4z_c0nf.



8,000+ active installs

Last Updated: 4 months ago

Compatible up to: 4.4.2



Child Themify

Create child themes at the click of a button.

By: John P. Bloch.



20,000+ active installs

Last Updated: 4 months ago

Compatible up to: 4.4.9



xili floom slideshow

xili-floom-slideshow integrates the floom slideshow in WordPress theme or child theme.

By: Michel - xiligroup dev and MS xiligroup.



400+ active installs

Last Updated: 11 months ago

Compatible up to: 4.1.10

Use Plugins to Create a WordPress Child Theme

- Child Theme Configurator
 - Create child themes and customize styles, templates and functions. Enqueues stylesheets and web fonts. Handles rgba, vendor-prefixes and more.
 - 70,000+ active installs
 - Compatible up to 4.4.2
 - Help Page:
http://www.childthemeconfigurator.com/how-to-use/#stylesheet_handling
 - (Has installation guide and usage guide, and training videos)

Use Plugins to Create a WordPress Child Theme

- One-Click Child Theme
 - Adds a Theme option to any active theme allowing you to make a child theme.
 - 70,000+ active installs
 - Compatible up to: 4.1.10

Example – Create child theme using plugin

The screenshot shows a File Manager interface with a dark blue header. The header includes the title 'File Manager', a 'Settings' link, a search bar with the text 'Search All Your Files', and a 'for' dropdown. Below the header is a toolbar with icons for various file operations: New File, New Folder, Copy, Move File, Upload, Download, Delete, Rename, Edit, Code Editor, HTML Editor, Change Permissions, View, Extract, and Compress. The main area is divided into two panes. The left pane shows a directory tree for the path '/public_html/wpchildthemex/wp-content/'. The tree includes folders like 'smstest1', 'socailmediatest1', 'subctest1', 'test', 'themes', 'tmp', 'transgendercrm2', 'wpchildthemex', 'wp-admin', 'wp-content', 'plugins', 'themes', 'fphotography', 'isis', 'isis-child', 'Minamaze_Pro', 'twentyfifteen', and 'twentyfourteen'. The right pane shows a file list for the selected directory, including 'functions.php', 'layout1.php', 'screenshot.png', and 'style.css'. Red arrows point from the text 'Parent Theme' to the 'isis' folder and from 'Child theme created by Plugin' to the 'isis-child' folder.

Name	Size	Last Modified (Central D)	Type
functions.php	750 bytes	Mar 19, 2016 2:43 PM	application/x-l
layout1.php	3.11 KB	Mar 19, 2016 4:18 PM	application/x-l
screenshot.png	138.21 KB	Mar 19, 2016 2:43 PM	image/x-gene
style.css	150 bytes	Mar 19, 2016 2:43 PM	text/css

Once you have the Child theme...

- Once you have the child theme, you can concentrate on finding the parent theme code that you want to change (to fix a problem or just change the theme)
- I recommend Firefox developer tools
- The Inspector tool is good at finding what code is responsible for a specific part of the page display
- Once you find the responsible code, you must file the file where the code resides

Using Firefox Developer Tools, Inspector

The screenshot displays the Chicago Women's AIDS Project (CWAP) website. The browser's address bar shows the URL `cwapchicago.org/category/programs/`. The website features a dark header with the CWAP logo and navigation links for 'About Us' and 'Contact Us'. Below the header, a light blue banner reads 'Latest Post'. The main content area contains four program cards: 'Project SASS!', 'Returning Sisters', 'Women Empowerment Groups', and 'Wellness Groups'. Each card includes a title, a brief description, and a 'no photos' placeholder. The Firefox Developer Tools are open at the bottom, with the 'Inspector' tab selected. The HTML structure is visible, showing a `<div class='title'>` container for the 'Latest Post' header. A red arrow points to the `<h2 class='blue'>Latest Post</h2>` line in the code. The 'Rules' panel on the right shows the 'body.custom-background' rule, which includes a `background-image` property pointing to a URL on the CWAP website.

Inspector

```
html...js.flexbox.canvas canvastext.webgl... body.archive.category.category-programs....
```

```
<div class="row">
  ::before
  <div class="title">
    <h2 class="blue">Latest Post</h2>
  </div>
  <div class="lay1"></div>
  ::after
```

Rules

Filter Styles

```
element {
  }
  body.custom-background {
    background-image: url('http://cwapchicago.org/wp-content/themes/isis');
```

grep to find the file that has “Latest Post”

```
Michael-Chases-Mac-Pro:Downloads mchase$ grep -lr "Latest Post" *  
hendsn.service-cdm.org-20160315-134436-842.wpress  
hendsn.service-cdm.org-20160315-171950-795.wpress  
isis/dummy/dummy-layout1.php  
isis/layout1.php <- This is the file  
isis/options.php
```

- Grep on Linux systems – My SiteGround Account is a Linux web server
- Or use a file search utility on Windows – This means you will have to download the parent them to your computer so you can search the files for specific content

Reference Links

- Child Theme Plugins
 - <https://wordpress.org/plugins/search.php?q=child+theme>
- Example How to Child 2011 Theme
 - <http://www.hongkiat.com/blog/wordpress-child-themes-dev/>
 - <http://code.tutsplus.com/tutorials/child-themes-basics-and-creating-child-themes-in-wordpress--wp-27475>
 - <http://theme.fm/2011/07/how-to-create-a-child-theme-based-on-twenty-eleven-791/>
- Info on Child Themes - A very long and dry overview of how themes and child themes work
 - <http://techblog.kjodle.net/2014/04/12/wordpress-child-themes-the-whys-and-hows/>