

# **WordPress as a Static Site Generator**

Leon Stafford



# Leon Stafford

36, BRISBANE

**Sign:** Aquarius

**Passions:** Open source, automation, low resource computing

**Turn-offs:** Insecurities (with your hosting), slow pageloads

**Occupation:** Founder, developer, support engineer @ wp2static.com

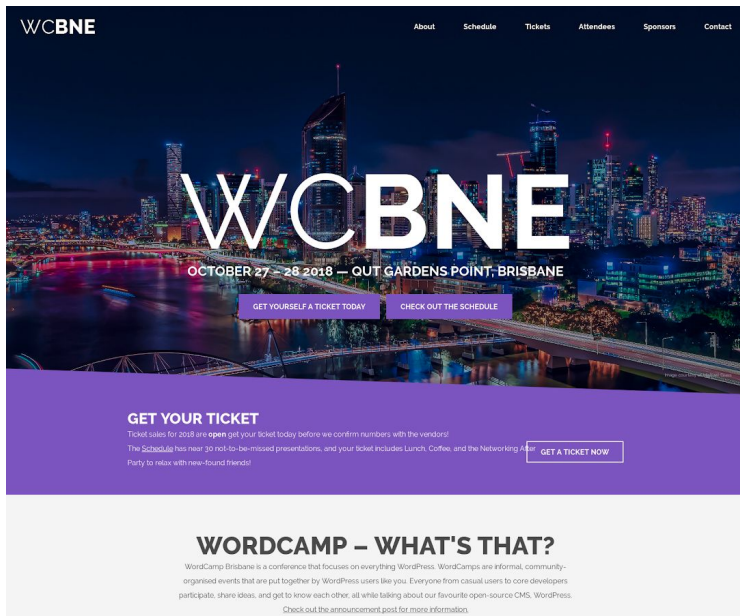
**Seeking:** Businesses having commitment issues with WordPress

# What we'll be covering

- static websites
- wtf are they?
- eww, why would I want one?
- j/k, FOMO, how do I get one?

# What is a static site?

static



LATEST NEWS

NEWS  
Welcome To WordCamp Social  
Event

NEWS  
#WCBNE After Party

dynamic



LATEST NEWS

NEWS  
Welcome To WordCamp Social  
Event

NEWS  
#WCBNE After Party

# What is a static site?

static

```
1 <!DOCTYPE html>
2 <html lang="en-AU">
3 <head>
4 <meta charset="UTF-8" />
5 <meta name="viewport" content="width=device-width, initial-scale=1" />
6 <meta name="apple-mobile-web-app-capable" content="yes" />
7 <title>WordCamp Brisbane 2018</title>
8 <link rel="profile" href="http://gmpg.org/xfn/11" />
9 <link rel="pingback" href="https://2018.brisbane.wordcamp.org/xmlrpc.php" /
>
10 <!--[if lt IE 9]>
11 <script src="https://2018.brisbane.wordcamp.org/wp-content/themes/wordcamp-
base/v2/js/html5.js" type="text/javascript"></script>
12 <![endif]>-->
13
14
15 <link rel='dns-prefetch' href='//s0.wp.com' />
16 <link rel='dns-prefetch' href='//secure.gravatar.com' />
17 <link rel='dns-prefetch' href='//s.w.org' />
@
1,1 Top
[0] 0:plugindevwp 1:ssh-Z 2:vim* "obsd" 17:03 25-Oct-18
```

dynamic

```
1 <!DOCTYPE html>
2 <html lang="en-AU">
3 <head>
4 <meta charset="UTF-8" />
5 <meta name="viewport" content="width=device-width, initial-scale=1" />
6 <meta name="apple-mobile-web-app-capable" content="yes" />
7 <title>WordCamp Brisbane 2018</title>
8 <link rel="profile" href="http://gmpg.org/xfn/11" />
9 <link rel="pingback" href="https://2018.brisbane.wordcamp.org/xmlrpc.php" /
>
10 <!--[if lt IE 9]>
11 <script src="https://2018.brisbane.wordcamp.org/wp-content/themes/wordcamp-
base/v2/js/html5.js" type="text/javascript"></script>
12 <![endif]>-->
13
14
15 <link rel='dns-prefetch' href='//s0.wp.com' />
16 <link rel='dns-prefetch' href='//secure.gravatar.com' />
17 <link rel='dns-prefetch' href='//s.w.org' />
@
1,1 Top
[0] 0:plugindevwp 1:ssh-Z 2:vim* "obsd" 17:03 25-Oct-18
```

# SweetAlert2

A BEAUTIFUL, RESPONSIVE, CUSTOMIZABLE, ACCESSIBLE (WAI-ARIA)  
REPLACEMENT FOR JAVASCRIPT'S POPUP BOXES

ZERO DEPENDENCIES

Current version: **v7.28.10** • Latest update: **today** • Downloads last month: **255,181**

Normal alert

Show normal alert

```
alert('You clicked the button!')
```

SweetAlert2

Show success message

```
swal(  
  'Good job!',  
  'You clicked the button!',  
  'success'  
)
```

Share the ❤



Pretty cool huh? SweetAlert2 automatically centers itself on the page and looks great no matter if you're using a desktop computer, mobile or tablet. It's even highly customizable, as you can see below!

# So, what's the difference?

## static

- pre-generated
- low-resource
- usable offline
- secure by default

## dynamic

- compiled on the fly
- resource-intensive
- online only
- needs security

# Why would I want a static site?

secure

fast

low-cost



# Security

With no database, no PHP, there is very little attack vector left exposed

# Performance

No such thing as a cache-miss

## vs Caching

*"Once a resource intensive operation is done, remember the outcome. The next time the same operation is requested, you can just give the result instead of doing that operation again."*

--@brendt\_gd (stitcher.io)

# Cost effectiveness

## Gratis

Netlify, GitHub/GitLab/BitBucket Pages, S3, Azure, GAE free tiers, Firebase, Neocities

## Cheap

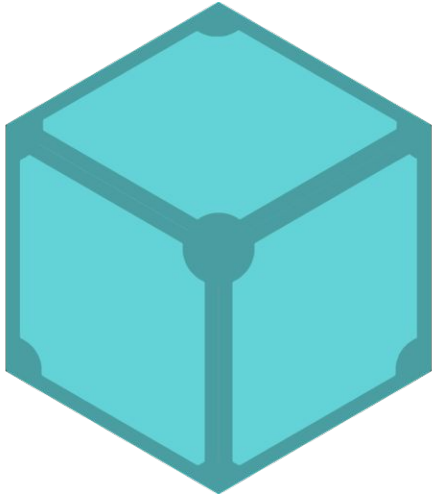
BunnyCDN, KeyCDN, OBSD Amsterdam, etc.

# Cost to the environment

\$40/month of hosting has to be paid by someone, selling something else, commuting to work, etc

Let's not waste energy on WordPress hamsters

# Resilience



# IPFS

Activists / political refugees

# Backends with benefits

Optionally, commit whole site snapshots under version control

When the fan gets dirty, instantly rollback while figuring out what went wrong

# Website archival

Take a snapshot of a legacy client's site, keep hosting it for free (you're a good human!)

Forget about it - no WP updates, no application vulnerabilities



# How to publish statically?

- wget
- httrack
- SiteSucker
- WP plugins
- Shifter
- Strattic
- HardyPress
- JAMstack + WP

# The JAMstack

JavaScript

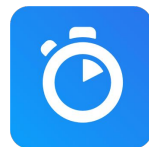
APIs

Markup

Use WordPress as a data-source for a static site generator like gatsby.js

# Purely static vs dynamic elements

- contact forms
- comments
- search
- e-commerce
- user accounts



algolia



FORMSPREE



SNIP CART

# Static site generators

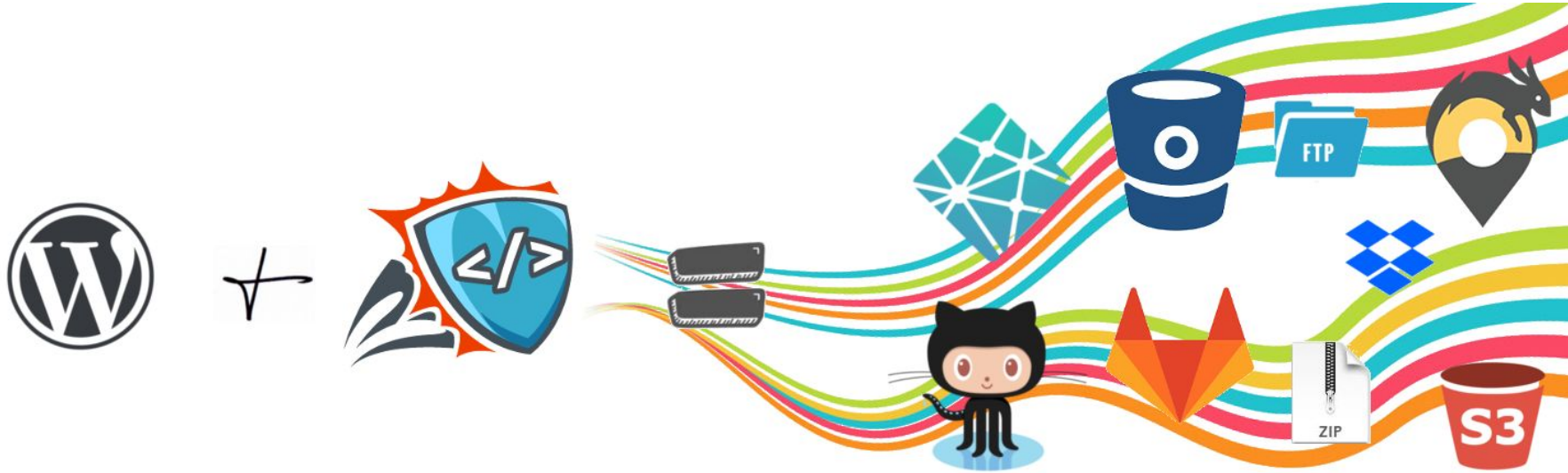
- gatsby.js
- Hugo
- VuePress
- Eleventy
- Jekyll
- Hyde
- Pelican
- Jigsaw

[staticgen.com](https://staticgen.com)

# Why we're not all using SSGs

- WP powering large chunk of web
- Ease of collaboration
- Opinionated workflows
- Command line fear
- WP admins can live in the browser

# WordPress Static Site Generator



# Best of both worlds

## WordPress

- collaboration
- plugins
- community
- rapid development

## WP SSG

- security
- performance
- cost savings
- portability

## WP Static Site Generator

Export your site

Crawling

Processing

Advanced Options

Help / Troubleshooting

Where will you host the static version of your site?

On, Amazon S3, using this plugin's auto-deployment

Base URL

http://mystaticsite.com

Set this to the URL your visitors will use to access your site. For an S3 hosted website, you have a few options which will influence what you put in this field.

Access Key ID

Access Key ID ie, AKIAIOSFODNN7EXAMPLE

Your S3 user will need permissions to put objects into the bucket. Check that the user whose Key you are using has the correct permissions for S3. You may attach the 'AmazonS3FullAccess' to the user or give more fine grained permissions control via [AWS's IAM](#).

Secret Access Key

Secret Access Key ie, wJalrXUtnFEMlK7MDENG/bPxRfCYEXAMPLEKEY

Region

choose the AWS region your bucket was created in

Bucket

S3 Bucket ie, my-static-site

Your bucket name as it appears in your [AWS Console for S3](#).

Subdirectory

Subfolder in your bucket ie, static-website

In case you want to put your site in a sub directory of a bucket, this will deploy all the static website files into the folder name you specify here.

CloudFront Cache Invalidation

CloudFront Distribution ID ie, ABC123DEFX

If using CloudFront in your S3 static website setup, enter the CloudFront Distribution ID here and it will create an invalidation request for all files at the end of the deployment process. The invalidation usually happens within a few minutes. You can check any pending invalidations in your [AWS Console's CloudFront page](#). Your AWS user will need to have the CloudFrontFullAccess permissions or a more controlled policy, that includes the ability to send CloudFront invalidation requests.

Upload Batch Size

1



Dashboard

WP Static Site  
GeneratorWP Static Site  
Generator

Contact Us

Upgrade &gt;

Posts

Media

Pages

Comments

Appearance

Plugins 1

Users

Tools

Settings

Collapse menu

## WP Static Site Generator

Export your site

Crawling

Processing

Advanced Options

Help / Troubleshooting

## Use basic authentication

☐ My WP site requires Basic Auth to access

## Basic auth user

Basic Auth user

## Basic auth password

Basic Auth password

## Initial crawl list

Before it starts to export your site, the plugin first generates a list of all WordPress URLs it thinks it should include. It takes these from what it knows about your posts, pages, tags, archives and media.

*57 URLs were detected on your site that will be attempted to be crawled.*

Preview initial crawl list

## Exclude certain URLs

Where the plugin has detected too many files and you want to exclude certain URLs from being crawled, please specify these URLs here.

*You can enter this as a partial string or full path*

*/wp-content/themes/twentyseventeen/banana.jpg*  
*/my\_pricelist.pdf*  
*.js*

## Include additional URLs

Where the plugin fails to detect certain URLs that you know you want to include, please add these here. This will be applied after any exclusions, in case you want to exclude a whole directory, then include just one file from it.

*Supported formats are fully qualified URLs or relative URLs*

*/wp-content/themes/twentyseventeen/banana.jpg*  
*/my\_pricelist.pdf*

Dashboard

WP Static Site  
GeneratorWP Static Site  
Generator

Contact Us

Upgrade &gt;

Posts

Media

Pages

Comments

Appearance

Plugins 1

Users

Tools

Settings

Collapse menu

## WP Static Site Generator

Export your site

Crawling

Processing

Advanced Options

Help / Troubleshooting

## Use relative URLs

☐ Use relative URLs

URLs in the exported site will be rewritten as [relative URLs](#), ie, `http://mydomain.com/some_dir/some_file.jpg` will become `/some_dir/some_file.jpg`. A base href will be set to `http://mydomain.com/`, from which all the relative URLs resolve to. This is another way to shave extra download size from your webpages.

☐ Write Base Href for relative URLs

A base href will be set to your new Base URL, from which all the relative URLs resolve to.

## Path rewriting

In order to hide any trace that your site uses WordPress, the following paths will be rewritten. You can leave these default options in, but for more control, you can overwrite them.

☒ Rewrite WP paths

WP content

  
*original: wp-content*

Theme root

  
*original: themes*

Theme

  
*original: twentyseventeen*

Uploads

  
*original: uploads*

Plugins

  
*original: plugins*

WP Includes

  
*original: wp-includes*

Remove cruft

☒ Remove conditional comments within HEAD

## WP Static Site Generator

Export your site

Crawling

Processing

Advanced Options

Help / Troubleshooting

## Diff-based deployment

☐ Only deploy changed files since last export

As this works off of your last export, if you have changed the deployment method or settings since your last deployment, you may end up with missing files. In this case, uncheck this option, do one complete deployment with your new settings, then re-enable this to get faster deployments of changes only going forward.

## Working Directory

The plugin will use this directory on the server for its working files and saving export cache. If the path you've given does not exist or isn't writable, it will default to

## Crawl Increment

This is set to 1, by default, in order to allow exporting on low-resource environments, such as shared hosting servers. Each increment is the amount of files the server will try to process on each request that the browser sends it. Incrementing this will speed up your exports, by processing more are a time. If your export is failing, due to resource (memory, CPU) limits being reached, try setting this to a lower number.

## Scheduled deploys

Using the [WP Cronrol](#) plugin, you can add the following hook to a schedule to trigger an export. This will run your export using the settings you've saved via this screen. Using this method, you can schedule your exports to happen daily or if you're after an on-post publish kind of behaviour, you could set this to every few minutes.

[Upgrade to the Professional Edition for programmatic access](#)

## Redirect this domain to your static site?

If you're happy with how your site is looking after exporting to a subdirectory, you can choose to start serving this content to your visitors, instead of your current WordPress site. To do this, you will need to adjust your `.htaccess` file. This [community guide](#) may be able to help you.

## Email upon completion

☐ Will send to: leonstafford@protonmail.com

Be alerted when your deployment process is complete.

Start static site export

Save current options

Reset to default settings

Dashboard

WP Static Site  
GeneratorWP Static Site  
Generator

Contact Us

Upgrade &gt;

Posts

Media

Pages

Comments

Appearance

Plugins 1

Users

Tools

Settings

Collapse menu

## WP Static Site Generator

Export your site

Crawling

Processing

Advanced Options

Help / Troubleshooting

Where will you host the static  
version of your site?

Test deploy - a sub-directory on this server

Target folder to deploy to

mystaticsite

By exporting to a subfolder on your current server, you can check how it will look when published and make any adjustments needed. After the export, you should be able to see how your site looks in static html at: <http://172.18.0.3/mystaticsite/>

Start static site export

Save current options

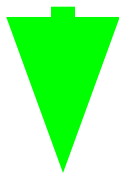
Reset to default settings

Process completed in 0:02 (mins:ss)

Go to my deployed site

# Optimisation addicts

`http://mywordpresssite.com/wp-content/themes  
/twentyseventeen/assets/images/header.jpg`



`/w/t/t/assets/images/header.jpg`

# Help on your static journey

Leon is active in several communities around static sites and is a guest on the next Static Bits episode.

[leonstafford.github.io](https://leonstafford.github.io)

