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A Scripter's Notes I

hugo module

Hugo Modules: Getting Started

Thu Feb 24, 2022

What are Hugo Modules and should you convert your Hugo site to be one?

This is a post in the “**Hugo Modules**” series.

2022-05-26 [Hugo Modules: Importing a Theme](#)

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The short answer to the second question is *yes*!

The **Hugo Modules** feature ¹ allows collecting different pieces of your Hugo site source from different repositories. Here each “piece” is a



1. This feature was added to Hugo back in [July 2019](#) and it has become more stable and feature-rich with time.



module. Those modules do not have to be just themes — they can even be parts of your site content.

From the [documentation](#):

*A module can be your main project or a smaller module providing one or more of the 7 component types defined in Hugo: **static**, **content**, **layouts**, **data**, **assets**, **i18n**, and **archetypes**. You can combine modules in any combination you like, and even mount directories from non-Hugo projects, forming a big, virtual union file system.*

I find the Hugo Modules feature to be kind of like [Git Submodules](#) , or like a symbolic link aggregation scheme like [GNU Stow](#) but version controlled.

You need to install go in order to use Hugo Modules.

So you might wonder why you would want to go through that trouble ..

★ Why use Hugo Modules?

Separation of reusable components

This benefit is same as that of using *git submodules* for managing themes. You might have separate repos for [adding ATOM feed](#), another for [adding search](#) which you would want to reuse on multiple sites, and you integrate those in your main site repo as submodules. Hugo modules allows you to do the same, and then more (recursive module updates, printing dependency graphs, etc.).

Mounts

Once a site repo is a Hugo module, it can start using the [mounts](#) feature.



Let's call the main Hugo site repository the *self module*. *Mounts* are analogous to creating symbolic links ² from any file or directory in



2. If you know what GNU Stow does, it's kind of like that.

the *self module* to **any** file or directory in one or more of the imported *modules* (including the *self module*).

As an example, you might have a `README.md` in the root of your git repository. Using *mounts*, you can tell Hugo to use that same file as if it were `content/_index.md` ³, and now the same `README.md` serves as

3. You can find the full example in github.com/bep/portable-hugo-links.

the content page for your site's home page! 🍷

★ How to use Hugo Modules?

★★ 1. Install a recent version of go

The *Hugo Modules* feature is powered by *Go Modules*. So even if you don't develop anything in go, you need to have a recent version of go installed (version 1.12 ⁴ or newer).

4. If you are using Netlify to deploy your website, go to the *Deploy Settings* → *Environment*, and set the `GO_VERSION` environment variable to 1.12 or newer.

As of <2022-02-24 Thu>, the latest stable version of go is 1.17.7. Download it from <https://go.dev/dl/> ⁵.

5. Also see [Installing go toolchain](#).

★★ 2. Convert your Hugo site to a *Hugo Module*

For your Hugo site to be able to use themes or theme components (like ATOM feed support, etc.), or even to use the *Mounts* feature, your Hugo site itself needs to become a Hugo Module .



Here's how you initialize your site repo to be a Hugo Module. The following command assumes that your Hugo site repo lives at `https://github.com/USER/PROJECT`.



Shell

```
# cd /path/to/your/site/repo/  
hugo mod init github.com/USER/PROJECT
```

Code Snippet 1: Initializing your site repo to become a Hugo Module

Here, `github.com/USER/PROJECT` is your Go/Hugo module name. This name does not need to be your git remote's URL. It could be any globally unique string you can think of.

Note that “`https://`” should not be included in the *module name*.

If all went well, a `go.mod` file will be created that will look like this:

```
module github.com/USER/PROJECT  
  
go 1.17
```

Code Snippet 2: Example `go.mod`

Right now, the `go.mod` only contains your site's *module name* and the go version used to create it. Once other modules are added as dependencies, they will be added in this same file ⁶.

6. Coming back to the *git submodules* analogy, `go.mod` is similar to the `.gitmodules` file.

Also, once other module dependencies are added, a `go.sum` file would also be created containing the checksums of all your module dependencies.

If you are managing your Hugo themes via *git submodules*, don't worry! Converting your site to a Hugo Module will not break anything.



★ Example: hugo mod init



I have a ~~MWE~~ repository called `hugo-mwe` to conduct small Hugo-related experiments, or play with a new feature, or attempt to reproduce a bug that I'd want to report. You can clone it and quickly try out the `hugo mod init` command.

Shell

```
git clone https://gitlab.com/hugo-mwe/hugo-mwe
cd hugo-mwe
hugo mod init gitlab.com/$USER/hugo-mwe
```

Code Snippet 3: Full example of initializing a Hugo Module

★ Closing

In this post, I have given a brief introduction to what *Hugo Modules* are, and how you can convert your Hugo site into one. In the next post, I go through how to import themes as *modules*.

★ References

- Hugo Modules documentation
- Hugo Forum – Hugo Modules for “dummies”
- Hugo Modules: Everything you need to know!

Backlinks

- Hugo Modules: Importing a Theme

VERSIONS USED: go 1.17.7 , hugo 0.92.0

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