Hugo (HTML)

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"I am always doing things I can't do, that's how I got to do them."
Pablo Picasso

1 Abstract

I do not run a web shop and I do not need a database to refresh dynamic web pages. That's why I use Hugo to run my web sites sulprobil.de and berndplumhoff.de. Hugo is quite efficient. The web pages will be translated quickly. The generated web pages will be loaded quickly, and they are well readable on a computer as well as on smart phones. A good introduction to Hugo can be found here (external link!): Hugo Quick Start.

2 Prerequisites

1. You need a web site and a provider.

2. You need to install Hugo, see Hugo Quick Start.

3. I also installed *7zip* to easily pack my generated web pages and to transfer them to my web site. Later I plan to use *FileZilla*.

4. Normally you should also install *Git* for version control. I started without it because I control my versions in the cloud.

5. You need to have basic knowledge of HTML or of *Markdown* files, and you need to be able to execute and to change batch files.

6. I selected the simple *Ghostwriter* theme with this file `config.toml`:

```
baseurl = "https://www.sulprobil.de/"
title = "Sulprobil"
theme = "ghostwriter"

[Params]
    mainSections = ["post"]
    intro = true
    headline = "Sulprobil Blog"
    copyright = "(C) (P) 2025 by Bernd Plumhoff"
    defaultContentLanguage = 'en'
    description = "My blog in German: https://www.berndplumhoff.de"
    email = "mail@sulprobil.de"
    opengraph = true
    dateFormat = "Mon, Jan 2, 2006"

[Permalinks]
    post = "/:filename/"

[markup]
  [markup.highlight]
    anchorLineNos = false
    codeFences = true
    guessSyntax = false
    hl_Lines = ''
    lineAnchors = ''
    lineNoStart = 1
    lineNos = false
    lineNumbersInTable = true
    noClasses = true
    style = 'vs'
    tabWidth = 4
```

3 Markdown Files

I do not bother too much about HTML; I prefer working on the meta level *Markdown.* I just enter my text in stream mode, *italic* text I need to enclose with single stars `*`, around **bold** text I need to enter two stars `**` on the left as well as on the right. Protected text, which I like to see as entered, I need to enclose with ' ' '.

3.1 Images

Images I store as `.png` or `.jpg` files in the subfolder `static`. With:

`![Grafic1](/grafic1.png)`

I insert them into my web page.

3.2 Tables

Tables I generate with the Markdown Table Generator: **Example:**
Source code:

```
[//]: # ( https://www.tablesgenerator.com/markdown_tables )
---
|          | Values | Percent   |
|--------:|--------:|----------:|
|          |     11 |      1.80 |
|          |     45 |      7.36 |
|          |    555 |     90.83 |
| **Sum** | **611** | **99.99** |
---
```

Result:

	Values	Percent
	11	1.80
	45	7.36
	555	90.83
Sum	**611**	**99.99**

Of course, you can enter Markdown tables directly. A table starts and ends with `---` (three dashes), and with a colon `:` in the underlining title row you specify whether a column should be left or right aligned.

3.3 Internal Link

An internal link I enter with:

```
[Logging]({{< ref "/post/excel_vba_a_collection_en.md" >}} "Logging")
```

3.4 External Link

An external link I define at the end of my Markdown file with:

```
[Hugo Quick Start]: https://gohugo.io/getting-started/quick-start/
```

For example, I then enter it with:

```
(external link!) [Hugo Quick Start]
```

The somewhat ugly note (`external link!`) I just add for legal safety. In Markdown files, I cannot create a target _blank.

3.5 Syntax Highlighting

Syntax highlighting is done by *Chroma*.

In file `config.toml` mentioned above on the web site level, I have:

```
[markup]
  [markup.highlight]
    anchorLineNos = false
    codeFences = true
    guessSyntax = false
    hl_Lines = ''
    lineAnchors = ''
    lineNoStart = 1
    lineNos = false
    lineNumbersInTable = true
    noClasses = true
    style = 'vs'
    tabWidth = 4
```

And on my web pages, I then use, for example:

Start String	For
``VB.net	VBA Code
``Batchfile	Batch file
``markdown	Markdown file
``Perl	Perl Code
``SQL	SQL Code

3.6   Bullet Points

If you like to generate bullet points within your text such as:

- First bullet point

- Second bullet point

- Third bullet point

Then just enter:

```
- First bullet point
- Second bullet point
- Third bullet point
```

4   Easy Editing and Testing of Generated Web Pages

Hugo translates my web pages quickly into HTML, and I can test it easily.

With `hugo -D` I translate my whole web site. Resulting HTML files will be generated in subfolder `public`.

With `hugo serve` I translate my web pages on-the-fly. They will be shown on my local site http://localhost:1313/. Hugo is waiting for changes and would show them immediately.

The batch file `run_hugo.bat` listed below first deletes subfolder `public`, then it translates the whole website, and the generated HTML files get zipped in subfolder `public` into a zip file `public.zip`. For this, I installed *7zip*.

```
REM @ECHO OFF
TITLE Running hugo now and showing local test site
REM Please note that you need to add C:\Programme\Hugo\bin
REM (your Hugo installation folder) to your %PATH%.
:loop
RMDIR /S  /Q public
timeout /t 1 /nobreak > nul
if exist public goto loop
taskkill /f /im hugo.exe
hugo -D || PAUSE && EXIT /B
CD public && "C:\Programme\7-Zip\7z.exe" a -tzip "public.zip" "."
CD ..
start "" http://localhost:1313/
REM hugo serve
hugo server --disableFastRender
```