



Generating Slides from Markdown

If you've seen some of my earliest posts about Markdown you know that I love the flexibility of writing Markdown and then generate other formats. Using my starter kit I can generate HTML and PDF from the same Markdown source.

I found out a project to convert Markdown to [Google Slides](#) using a modified Markdown parser and the [Slides API](#) to generate complete presentations.

In this essay I'll look at three aspects of this process:

- How to run the tool inside a Gulp build process
- The md2gslides specific syntax for different types of slides
- The code for some of the parser functionality to generate these types of content

We could use code from Literate CSS to build both the narrative and the presentation for a given content. In the future we may want to use our own custom parser so we write less raw HTML in the Markdown files.

Running the tool inside a build script

I'll use the same tools from the [starter](#) project to add the slide functionality. We don't need to add any plugins for the code to work.

The task is simple. It takes all the Markdown files from the `src/slides` directory and run the `md2gslides` utility to convert them to Google Slides.

```
// Build Google Slides
gulp.task('build-slides', () => 'build-slides's = {
  // default = false, true means don't emit error
  // default = false, true means stdout is written to file.contents
  pipeStdout: false,
};
let reportOptions = {
  // default = true, false means // default = false, true means stdout
```

```
    stderr: true,  
    // default = true, false means don't write stdout  
    stdout: true  
  };  
  return gulp.src('./src/slides/*.md')  
    .pipe($.exec('md2gslides --style github' './src/slides/*.md'/*.md'))  
    .pipe($.exec('md2gslides --style github <%= file.path %> ', options))  
    .pipe($.exec.reporter(reportOptions))  
  });
```

Slides

Each slide is typically represented by a header, followed by zero or more block elements. The tool uses a modified markdown parser to generate the content.

Begin a new slide with a horizontal rule (---). The separator is optional on the first slide.

The following examples show how to create slides of various layouts:

Title slide

```
---  
  
# This is a title slide  
## Your name here
```

Figure
1:
Title
Slide

Section title slides

```
---  
  
# This is a section title
```

Figure
2:
Section
title
slide

Section title & body slides

```
---  
  
# Section title & body slide  
  
## This is a subtitle  
  
This is the body
```

Figure
3:
Section
title &
body
slide

Title & body slides

```
---  
  
# Title & body slide  
  
This is the slide body.
```

Figure
4:
Title
&
body
slide

Main point slide

Add `{ .big }` to the title to make a slide with one big point

```
---

# This is the main point {.big}
```

Figure
5:
Main
point
slide

Big number slide

Use `{.big}` on a header in combination with a body too.

```
---

# 100% {.big}

This is the body
```

Figure
6: Big
number
slide

Two column slides

Separate columns with `{.column}`. The marker must appear on its own line with a blank both before and after.

```
---

# Two column layout

This is the left column

{.column}

This is the right column
```

Two
column
slide

Images

Inline images

Images can be placed on slides using image tags. Multiple images can be included. Multiple images in a single paragraph are arranged in columns, multiple paragraphs arranged as rows.

Note: Images are currently scaled and centered to fit the slide template.

```
---  
  
# Slides can have images  
  

```

Slide
with
image

Background images

Set the background image of a slide by adding `{ .background }` to the end of an image URL.

```
---  
  
# Slides can have background images  
  
{.background}
```

Slide with
background
image

Videos

Include YouTube videos with a modified image tag.

```
---  
  
# Slides can have videos  
  
@[youtube](MG8KADiRbOU)
```

Slide
with
video

Speaker notes

Include speaker notes for a slide using HTML comments. Text inside the comments may include markdown for formatting, though only text formatting is allowed. Videos, images, and tables are ignored inside speaker notes.

```
---  
  
# Slide title  
  
{.background}  
  
<!--  
These are speaker notes.  
-->
```

Formatting

Basic formatting rules are allowed, including:

- Bold
- Italics
- Code
- Strikethrough
- Hyperlinks
- Ordered lists

- Unordered lists

The following markdown illustrates a few common styles.

```
**Bold**, *italics*, and ~~strikethrough~~ may be used.
```

```
Ordered lists:
```

- ```
1. Item 1
1. Item 2
 1. Item 2.1
```

```
Unordered lists:
```

- ```
* Item 1
* Item 2
  * Item 2.1
```

Additionally, a subset of inline HTML tags are supported for styling.

- ``
- `<sup>`
- `<sub>`
- ``
- `<i>`
- ``
- ``

Supported CSS styles for use with `` elements:

- `color`
- `background-color`
- `font-weight: bold`
- `font-style: italic`
- `text-decoration: underline`
- `text-decoration: line-through`
- `font-family`
- `font-variant: small-caps`

Emoji

Use Github style [emoji](#) in your text using the `:emoji:`.

The following example inserts emoji in the header and body of the slide.

```
### I :heart: cats

:heart_eyes_cat:
```

Code blocks

Both indented and fenced code blocks are supported, with syntax highlighting.

The following example renders highlighted code.

```
### Hello World

```javascript
console.log('Hello world');
```
```

To change the syntax highlight theme specify the `--style <theme>` option on the command line. All [highlight.js themes](#) are supported. For example, to use the github theme

```
$ md2gslides slides.md --style github
```

Tables

Tables are supported via [GFM](#) syntax.

Note: Including tables and other block elements on the same slide may produce poor results with overlapping elements. Either avoid or manually adjust the layout after generating the slides.

The following generates a 2x5 table on the slide.

```
### Top pets in the United States

Animal | Number
```


| ----- | | ----- |
|-------|--|-------------|
| Fish | | 142 million |
| Cats | | 88 million |
| Dogs | | 75 million |
| Birds | | 16 million |

More information

Is this the only way to automate creation of Google Slides? No, it isn't. Google provides an [API](#) that allows developers to programmatically create presentations, slides and slide content. The G Suite Dev Show provides tutorials in addition the tutorials and examples in the [API website](#).