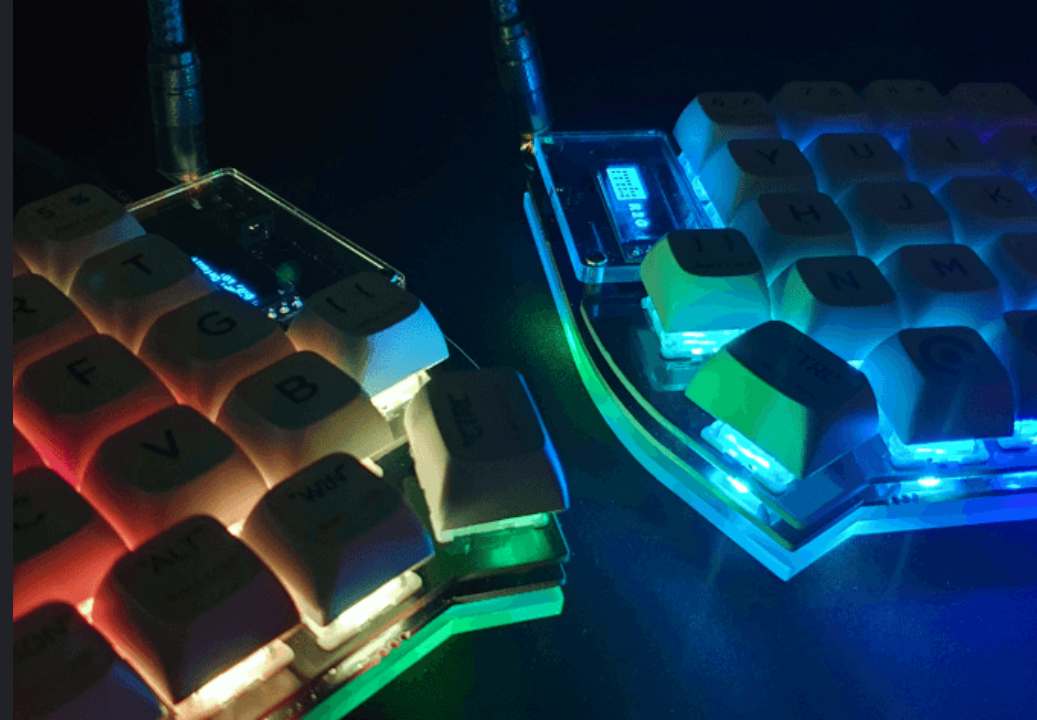# Using Storybook To Preview Single Directory Components

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DrupalCamp Scotland 2025

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Source Code

- Talk is available at:
  https://github.com/hashbangcode/drupal-storybook-talk or via QR code.
- All code seen can be found at
  http://bit.ly/3W1bnu0
- www.hashbangcode.com

Using Storybook To Preview Single Directory Components

What is Storybook?

- Storybook is a frontend tool for creating UI components.

Why SDC?

- An important part of modern Drupal theme development.
- Can be added to themes or modules.
- Integrates with Drupal Canvas.

Contents

- Introduction To **Single Directory Components**
- Installing the **Storybook Module**
- Installing and running **Storybook**

Single Directory Components (SDC)

A *very* short introduction.

SDC

- They exist in a single directory (hence the name)

```
example_component/
      example_component.component.yml
      example_component.css
      example_component.js
      example_component.twig
```

SDC - *.component.yml

- The `*.component.yml` file is used to define the structure of the component.

```yaml
name: My Component

props:
  type: object
  properties:
    # ...

slots:
  # ...
```

SDC - *.component.yml

- `props` have defined properties with set data types.

```yaml
props:
   type: object
   properties:
      extra_classes:
         type: ['string', 'null']
         title: Extra classes
         examples:
            - extrawide, dark
```

- `{{ extra_classes }}` can now be used in the template.

SDC - *.component.yml

- `slots` are much simpler to define.

```yaml
slots:
  title:
    title: "Title"
```

- `{{ title }}` is now available in the template.

SDC - Props vs Slots

- `props` - Properties that the component has. Classes, menu depth, display options, etc.
- `slots` - Objects that the component can render. Title, body copy, images etc.

SDC - *.twig

- A normal twig template that renders the defined structure of the component.

Slot in a *.component.yml file:

```yaml
slots:
  title:
    title: "Title"
```

Twig template:

```twig
{{ title }}
```

SDC - *.twig

- You should probably add `slots` using the `block` Twig tag.

```twig
{% block title %}
  {{ title }}
{% endblock %}
```

- This allows you to override the value in Storybook without having to add `|raw` to your Twig template.

SDC - Other files

- Any *.css or *.js files will be automatically inclued as attachments.

- Template and CSS can reference files inside the SDC.

```
add some examples of images being referenced from SDC
```

SDC - Usage

- With the SDC created we can now add it to our Drupal template templates.

- For exmaple rendering an Author content type.

```
{{ include('my_theme:author', {
  author_url: url,
  name: label,
  bio: content.field_author_short_bio,
  avatar: content.field_author_avatar
}) }}
```

Storybook Module

Storybook Module

- Require and install the Storybook module

```
composer require drupal/storybook
drush en storybook
```

Storybook Module - Permissions

- Ensure that the correct permissions are set.

```
drush role:perm:add anonymous 'render storybook stories'
```

Storybook Module - Stories

- For each component you want to test you need a `*.stories.twig` file.
- This contains a number of examples of the SDC in use.
- Add additional markup or other components to the story.

Storybook Module - Stories

```
{% stories componentName with { title: 'Components/ComponentName' } %}

  {% story default with {
    name: '1. Default',
    args: {
      some_property: 'A value'
    }
  } %}
  {% embed 'my_theme:componentName' %}
  {% endembed %}

  {% endstory %}

{% endstories %}
```

Storybook Module - Stories

- [[look at how stories are translated into Storybook previews]]

Storybook Module - Stories

- Use include for simple components that only have properties.

```twig
{% story default with {
  name: '1. Default',
  args: {
    extra_classes: 'grid'
  }
} %}
{{ include('my_theme:example_component', {
  extra_classes
}) }}
```

Storybook Module - Stories

- Use embed with more complex components that have slots.

```twig
{% story default with {
  name: '1. Default',
  args: {
    title: 'The title'
  }
} %}
{% embed 'my_theme:example_component' %}
  {% block avatar %}
    {{ title|raw }}
  {% endblock %}
{% endembed %}
```

Storybook Module - Stories

- Storybook doesn't understand `*.stories.twig` files.
- They need converting into `*.stories.json` .
- This Storybook module comes with a couple of Drush commands to do this.

```
drush storybook:generate-all-stories
```

Drupal Setup

- Some settings are needed to allow Storybook to connect to Drupal.

Drupal Setup - CORS Prevention

- Add the following rules to the `development.services.yml` file.

```yaml
parameters:
    storybook.development: true
    cors.config:
        enabled: true
        allowedHeaders: [ '*' ]
        allowedMethods: [ '*' ]
        allowedOrigins: [ '*' ]
        exposedHeaders: false
        maxAge: false
        supportsCredentials: true
```

Drupal Setup - CORS Prevention

- Add a reference to the services file from the `settings.php` file.

```
$settings['container_yamls'][] = DRUPAL_ROOT . '/sites/development.services.yml';
```

Drupal Setup - Twig Debug

Turn on the theme development settings.

```
drush state:set twig_debug 1
drush state:set twig_cache_disable 1
drush state:set disable_rendered_output_cache_bins 1
```

[[[[Insert a picutre of the twig debug page here]]]]

Storybook

Storybook - Install

- Install Storybook in a separate directory, away from your Drupal root.

```
npm init -y
npx storybook init --type server
```

Storybook - Install

- This will give you a directory containing.

```
.storybook
stories
node_modules
package.json
package-lock.json
```

Storybook - Configure

- Edit the `.storybook/main.js` file to point Storybook at your stories.

```
"stories": [
    "../../web/themes/custom/my_theme/components/**/*.stories.@(json|yaml|yml)"
],
```

Running Storybook

- Storybook is a JavaScript application that can be run on its own.

```
npm run storybook
```

- This will open a browser window with the address http://localhost:6006.

Running Storybook - DDEV

- If you are using DDEV then can run Storybook from inside the web container, with some config.

```yaml
web_extra_exposed_ports:
  - name: storybook
    container_port: 6006
    http_port: 6007
    https_port: 6006
web_extra_daemons:
  - name: node.js
    command: "tail -F package.json > /dev/null"
    directory: /var/www/html/tests
```

Running Storybook - DDEV

- To stop DDEV complaining you might also want to add `--no-open` flag the relevant line in the package.json file to prevent the browser opening.

```
"scripts": {
  "storybook": "storybook dev -p 6006 --no-open",
  "build-storybook": "storybook build"
},
```

Building Storybook

- Storybook can also be built as a static website.

```
npm run build-storybook
```

- The static site can be deployed and served as a site.

Hosting Storybook

- Use the following nginx configuration.

```
location ^~ /storybook-static {
  add_header "Access-Control-Allow-Origin" *;
  add_header "Access-Control-Allow-Methods" "GET, POST, OPTIONS";
  disable_symlinks off;
  alias /your/project/directory/tests/storybook-static;
  index index.html;
}
```

Workflow

- A workflow for building a component.

  - Create story for component
  - Build (or run) storybook
  - Preview story
  - Once the SDC is complete, add it to your template.

Demo

Tips

- Look for CORS errors.
- If you only see a blank screen, check Drupal logs.
- Be aware that Drupal will wrap some things with extra elements. That might throw off your positioning and margins.
- Setup a styleguide storybook.
- Understand props and slots.
- Don't abstract too much with SDC.

Alternatives

- **SDC - Component library**

[ADD SCREENSHOT OF SDC COMPONENT LIBRARY MODUE N USE HERE]

Resources

- Storybook
- Storybook Module
- Drupal Documentation on SDC
- Drupal 11: Using Storybook To Preview Single Directory Components

Questions?

- Slides:
https://github.com/hashbangcod storybook-talk

Thanks!

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