Un-Framework

Delivering Dynamic Experiences with HTML over the Wire

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About Me

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TYPO3 Core Merger: Backend UX
TYPO3camp Munich Organizer

```
<template>
  <ul id="entries">
    <li v-for="item in items">
      {{ item }}
    </li>
  </ul>
  <button @click="fetchNextPage">Next Page</button>
</template>

<script>
const items = ref([])

function fetchNextPage() {
  fetch('/endpoint').then((res) => {
    items.value = items.value.concat(res.body)
  })
}
</script>
```

```
function fetchNextPage() {
  fetch('/endpoint').then(res => {
    $('#entries').append(res.html);
  })
}
```

```
<a href="/endpoint?page=2">Next Page</a>
```

Which Node version do I need?

Webpack

Node

Toolchains

Switching versions for projects

Rollup

Vite

Frontend is hard

Svelte

Which npm packages do I need?

All those frameworks

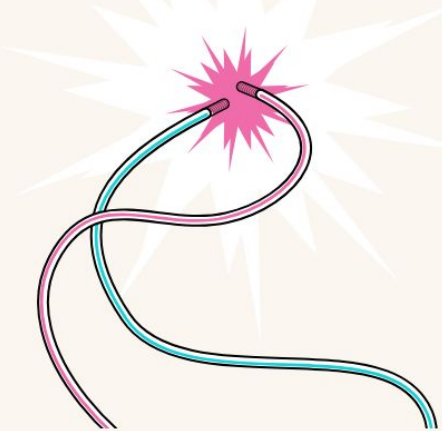
Which are safe?

React

Vue

HOTWIRE

HTML OVER THE WIRE



Hotwire is an alternative approach to building modern web applications without using much JavaScript by sending HTML instead of JSON over the wire. This makes for fast first-load pages, keeps template rendering on the server, and allows for a simpler, more productive development experience in any programming language, without sacrificing any of the speed or responsiveness associated with a traditional single-page application.


TURBO


STIMULUS


TURBO

Turbo Drive

Previously known as “Turbolinks” in the Rails world.

Turns a page into an “SPA” by replacing all regular page loads with AJAX.

Previous pages are cached, so perceived performance is way faster.

Turbo Frames

Turbo Frames allow pages to be decomposed into smaller components that capture form actions and navigation.

Navigating inside a `<turbo-frame id=”idName”>` will check the target response for a matching `<turbo-frame>` tag and only replace it’s contents with the current tag present.

Turbo Streams

Actually meant for streaming over websockets, you can also use this as responses from any web request.

Turbo will listen to responses using the `text/vnd.turbo-stream.html` content-type and execute actions based on `<turbo-stream>` tags present.

Demonstration

Problems with the Turbo approach

Porting an existing site using a lot of JS already is not recommended.

Pages using Turbo don’t fire the load event anymore (or well, only once) since page navigation is happening over AJAX.

This requires massive refactoring/rethinking of an application.


STIMULUS

Controllers

Classes that contain functionality for sites using actions, targets and values in HTML.

Controllers don't require event listeners to be initialized, this happens automatically as soon as a matching `data-controller` attribute is found on the page or even asynchronously loaded.

```
<div data-controller="hello">
  <input data-hello-target="name" type="text">

  <button data-action="click->hello#greet">
    Greet
  </button>

  <span data-hello-target="output">
  </span>
</div>
```

```
import { Controller } from "stimulus"

export default class extends Controller {
  static targets = [ "name", "output" ]

  greet() {
    this.outputTarget.textContent =
      `Hello, ${this.nameTarget.value}!`
  }
}
```

Actions

Allow to call controller methods from HTML using `data-action` attributes.

Example:

```
<button data-action=”click->example#action”>
```

Would call the `action()` method on `ExampleController` on a button click.

The default interaction of an element can also be omitted, so the above can be shortened to:

```
<button data-action=”example#action”>
```

```
<div data-controller="hello">
  <input data-hello-target="name" type="text">

  <button data-action="click->hello#greet">
    Greet
  </button>

  <span data-hello-target="output">
  </span>
</div>
```

```
import { Controller } from "stimulus"

export default class extends Controller {
  static targets = [ "name", "output" ]

  greet() {
    this.outputTarget.textContent =
      `Hello, ${this.nameTarget.value}!`
  }
}
```

Targets

Allow to define targets via HTML that can be accessed inside controllers as an alternative to selecting them via queries.

The names of targets need to be defined in a static array in the controller.

Example:

```
<div data-controller=”test” data-test-target=”root”>
```

The element would be accessible as `this.rootTarget` in the controller class.

```
<div data-controller="hello">
  <input data-hello-target="name" type="text">

  <button data-action="click->hello#greet">
    Greet
  </button>

  <span data-hello-target="output">
  </span>
</div>
```

```
import { Controller } from "stimulus"

export default class extends Controller {
  static targets = [ "name", "output" ]

  greet() {
    this.outputTarget.textContent =
      `Hello, ${this.nameTarget.value}!`
  }
}
```

Values

Allow to specify values in HTML that can be used inside controllers using the specified value name.

The names of values need to be defined in a static array in the controller.

Example:

```
<div data-controller=”test” data-test-example-value=”Hello World”>
```

`this.exampleValue` would resolve to “Hello World” in `TestController`.

Demonstration

Who is using Hotwire?

Integrations

Rails

Turbo Rails

bundle install turbo-rails

Laravel

Turbo Laravel

composer require hotwired/turbo-laravel

Symfony

Symfony UX Turbo

composer require symfony/ux-turbo

TYPO3

TYPO3 Extension “Topwire”

Find out more about it right at the next talk in Room IONOS

Past, Present and Future of creating server side rendered interactive websites with TYPO3

by Helmut Hummel

Questions?

Thanks for listening!

Hope you enjoyed this talk :)

Feedback? Want to chat?

Fediverse (Mastodon/...):
@pixel@desu.social

Twitter:
@pixeldesu

TYPO3 Slack:
@pixeldesu