Version 4.x

Tram-Lite Micro Guide

HTML-First Declarative Interface for building Web-Components

What is Tram-Lite?

Tram-Lite is a declarative HTML-First library for building native web-components. The API provides an elegant and easy way to build modern components, that work in any framework, and on any modern platform, all in HTML.

Building a Web-App

If you want to include the Tram-Lite HTML API available on your page, include the following script tag:

```
<script src="https://unpkg.com/tram-lite@4"></script>
```

Building a Library

If you are building a library with Tram-Lite, you can make component definitions in HTML files, and have users import them using `import-components.js`

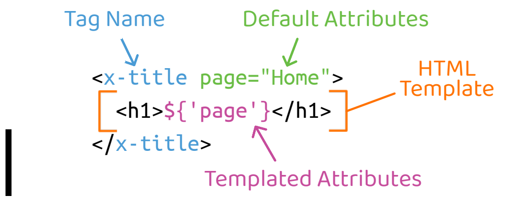
```
<script src=".../tram-lite@4/output/import-components.js"
        tl-components="./your-component.html ...">
```

If you are building a library, and would like to serve component definitions as a single JS bundle, you can use the `export-components` CLI command to make a JS

```
$ npx tram-lite@4 export-components x-title.html ...
```

Both import-components.js and assets built with export-components do not depend on Tram-Lite being on the page, and can even work when other versions of Tram-Lite are on the page.

Anatomy of a Component Definition



```
<x-title page="Home">
  <h1>${'page'}</h1>
</x-title>
```

Tag Name — name of the new tag, needs to be hyphenated.

Default Attributes — optional, attributes that can be used in the template.

HTML Template — HTML that will be inserted when an instance of this web-component is created. Can include style tags, and script tags with the tl-effect attribute.

Templated Attributes — optional, attributes to include in your HTML or CSS (in style tags).

If you included the Tram-Lite API on your page, you can build component definitions inline using the tl-definition attribute on template tags.

```
<template tl-definition>
  <x-title> ... </x-title>
</template>
```

Side-Effects using tl-effect

```
<x-title page="Home">
  <script tl-effect
          tl-dependencies="page">
    this.getAttribute('page')
  </script>
</x-title>
```

tl-dependencies — optional, attribute list that when updated will cause the script to re-trigger.

this — reference to the host component in the light DOM.

tl-effect works with script tags, and is required for script tags to work on-mount for Tram-Lite components.

Interfacing with the ShadowRoot

When you want to query or interface with elements inside a web-component, you can use the .shadowRoot attribute. This can be useful for attaching event listeners or getting the state of internal elements.

```
<x-button clicked='false'>
  <button>Was Clicked: ${'clicked'}</button>
  <script tl-effect>
    const b = this.shadowRoot.querySelector('button')
    b.addEventListener('click', () => {
      this.setAttribute('clicked', 'true')
    })
  </script>
</x-button>
```

Controlled Inputs using tl-controlled

```
<x-title page="Home">
  <input tl-controlled
         tl-hostattr="page"
         tl-trigger="input" />
</x-title>
```

tl-hostattr — optional, attribute to set on the host component, by default "value"

tl-trigger — optional, attribute list of events that should trigger updates to the host component

tl-controlled can be used added to any element in the shadow DOM. It specifically works well with input and select elements.

Style Tags and Global CSS

You can use style tags to have scoped CSS for an instance of an element. If you are referencing the host element, you can use the :host selector.

```
<x-title>
  <style>
    :host { color: blue }
  </style>
</x-title>
```

If you have global styles that you want to apply to your component, include that link tag in your element.

```
<x-title>
  <link rel="stylesheet" href="./styles.css" />
</x-title>
```

Full Documentation And More

Go to the website tram-one.io/tram-lite