





# Glen R. Goodwin

THE  
**AWESOME  
ENGINEERING**  
COMPANY



@areinet



arei.net



github.com/arei

**Zeph**  
**JS**



# WEB COMPONENTS

**AWESOME**





# Web Components



HTML  
Templates



Shadow  
DOM



Custom  
Elements




HTML  
Imports

**<my-awesome-button>**

**</my-awesome-button>**



# Window.customElements

 Languages EditJump to: [Syntax](#) [Examples](#) [Specification](#) [Browser compatibility](#)[Web technology for developers](#)[Web APIs](#) > [Window](#) >

Window.customElements

Related Topics

[Window](#)

▼ Properties


[applicationCache](#)

The `customElements` read-only property of the `Window` interface returns a reference to the `CustomElementRegistry` object, which can be used to register new [custom elements](#) and get information about previously registered custom elements.

## Syntax

```
1 | let customElementRegistry = window.customElements;
```

# Using shadow DOM

 Languages Edit

Jump to:

[High-level view](#)[Basic usage](#)[Working through a simple example](#)[See also](#)[Web technology for developers](#)[Web Components](#) >[Using shadow DOM](#)

## Related Topics

### ▼ Interfaces

[CustomElementRegistry](#)[HTMLSlotElement](#)[HTMLTemplateElement](#)

An important aspect of web components is encapsulation — being able to keep the markup structure, style, and behavior hidden and separate from other code on the page so that different parts do not clash, and the code can be kept nice and clean. The Shadow DOM API is a key part of this, providing a way to attach a hidden separated DOM to an element. This article covers the basics of using the Shadow DOM.



**Note:** Shadow DOM is supported by default in Firefox (63 and onwards), Chrome, Opera, and Safari. Edge is working on an implementation as well.

body>

```
<twtr-tweet-viewer style="list">
```

```
<twtr-tweet tweetId="45yhbwrh356hw34t3w4gtqerf">
```

Try ZephJS!

It's the bomb!

```
</twtr-tweet>
```

```
<twtr-tweet tweetId="eg24g5w4t3w4gtqerf35545g">
```

```
<twtr-tweet-media src="images/42t3w4gtqerf5234523452rgs">
```

```
<twtr-tweet-
```

```
</twtr-tweet>
```

```
<twtr-tweet tweetId="652tgtbwg53f3w4gtqerf53fq3">
```

In Endgame when he dies a horrible death.

It's gruesome.

```
</twtr-tweet>
```

```
<twtr-tweet tweetId="234tgb5y36g34fv246245w3va">
```

```
<twtr-tweet-media src="images/245yh3yb364wgegaasdfg">
```

```
<twtr-tweet-media
```



```
<body>
  <twtr-tweet-viewer style="list">
    <twtr-tweet tweetId="123">
    </twtr-tweet>
    <twtr-tweet tweetId="456">
    </twtr-tweet>
    <twtr-tweet tweetId="789">
    </twtr-tweet>
    <twtr-tweet tweetId="abc">
    </twtr-tweet>
    <twtr-tweet tweetId="def">
    </twtr-tweet>
  </twtr-tweet-viewer>
</body>
```

Not really a  
picture of  
Shane



Not really a  
picture of  
Shane



**Web Page**

**ShadowDOM**

**Custom  
Elements  
API**

**HTML  
Templates**

**Browser APIs**

**Web Page**

**Web Component Helper Library**

**ShadowDOM**

**Custom  
Elements  
API**

**HTML  
Templates**

**Browser APIs**





**Web Component Helper Library**

ZephJS is an **easy, understandable**, and ultra-light framework for **defining** and **using Web Components**. It is perfect for people writing component libraries, teams building applications or sites that just require a few custom components, or projects building whole applications that do not want all the weight of a modern JavaScript Browser framework. **ZephJS simplifies the process of defining custom Web Components into a declarative highly readable structure that uses standard JavaScript, standard HTML markup, and standard CSS Styling.**

```
import {ZephComponents,html,css,attribute,property,bind,onEvent}  
from "../Zeph.js";
```

```
ZephComponents.define("my-list",()=>{  
  html("../my-list.html");  
  css("../my-list.css");  
  
  attribute("value","");  
  attribute("label","");  
  property("value","");  
  
  bind("@label","label","$");  
  bind("@value",".",".value");  
  
  onEvent("click",(event,element)=>{  
    ...  
  });  
});
```

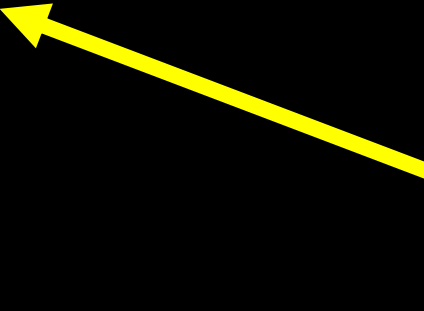
```
import {ZephComponents,html,css,attribute,property,bind,onEvent} from
"./Zeph.js";
```

```
ZephComponents.define("my-list",()=>{
  html("./my-list.html");
  css("./my-list.css");

  attribute("value","");
  attribute("label","");
  property("value","");

  bind("@label","label","$");
  bind("@value",".",".value");

  onEvent("click",(event,element)=>{
    ...
  });
});
```



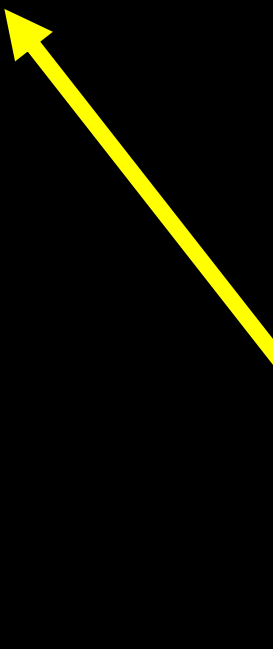
```
import {ZephComponents,html,css,attribute,property,bind,onEvent} from
"./Zeph.js";
```

```
ZephComponents.define("my-list",()=>{
  html("./my-list.html");
  css("./my-list.css");

  attribute("value","");
  attribute("label","");
  property("value","");

  bind("@label","label","$");
  bind("@value",".",".value");

  onEvent("click",(event,element)=>{
    ...
  });
});
```



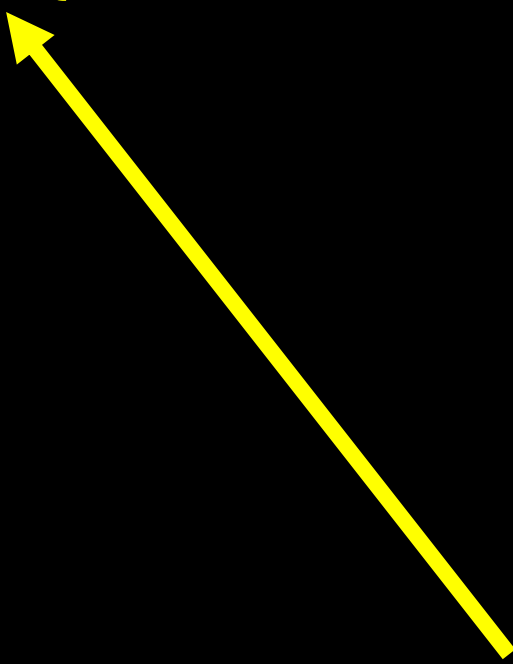
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```
ZephComponents.define("my-list",()=>{
  html("./my-list.html");
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  attribute("label","");
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```
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```
ZephComponents.define("my-list",()=>{
```

```
  html("./my-list.html");
```

```
  css("./my-list.css");
```

```
  attribute("value","");
```

```
  attribute("label","");
```

```
  property("value","");
```

```
  bind("@label","label","$");
```

```
  bind("@value",""."value");
```

```
  onEvent("click",(event,element)=>{
```

```
    ...
```

```
  });
```

```
});
```



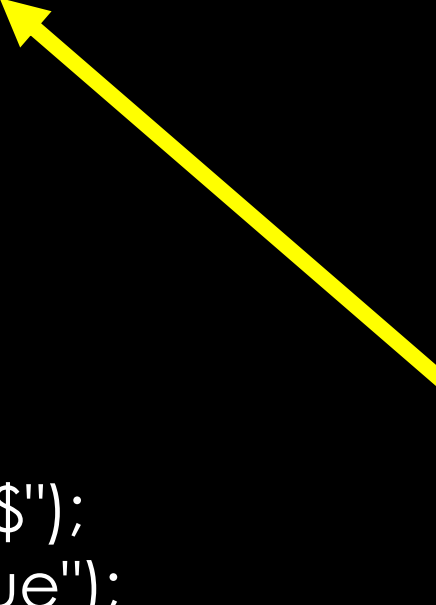
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ZephComponents.define("my-list",()=>{
  html("./my-list.html");
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  attribute("label","");
  property("value","");

  bind("@label","label","$");
  bind("@value",".",".value");

  onEvent("click",(event,element)=>{
    ...
  });
});
```



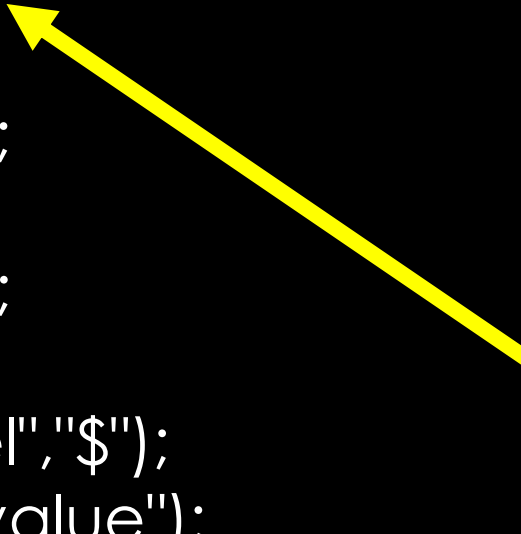


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```
  attribute("value","");
  attribute("label","");
  property("value","");
```

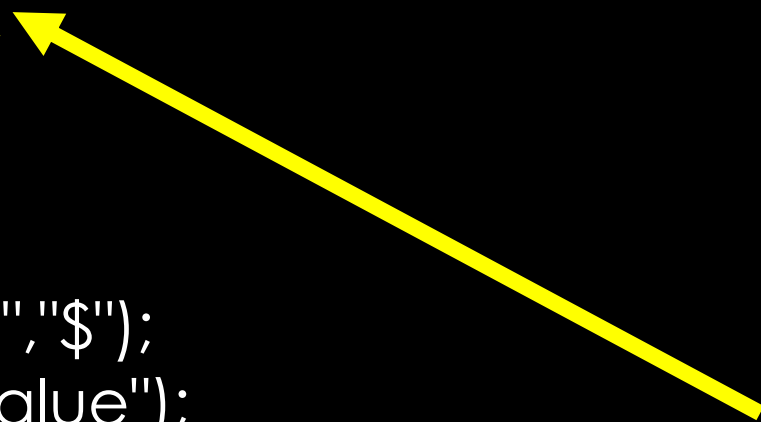
```
  bind("@label","label","$");
  bind("@value",".",".value");
```

```
  onEvent("click",(event,element)=>{
```

```
    ...
```

```
  });
```

```
});
```



```
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```

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ZephComponents.define("my-list",()=>{
  html("./my-list.html");
  css("./my-list.css");
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```
  attribute("value","");
```

```
  attribute("label","");
```

```
  property("value","");
```

```
  bind("@label","label","$");
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```
  bind("@value",".",".value");
```

```
  onEvent("click",(event,element)=>{
```

```
    ...
```

```
  });
```

```
});
```

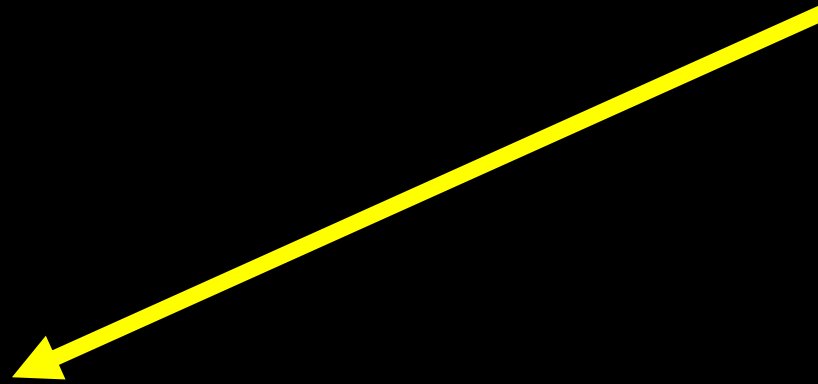


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  css("./my-list.css");
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```

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  bind("@label","label","$");
  bind("@value",".",".value");
```



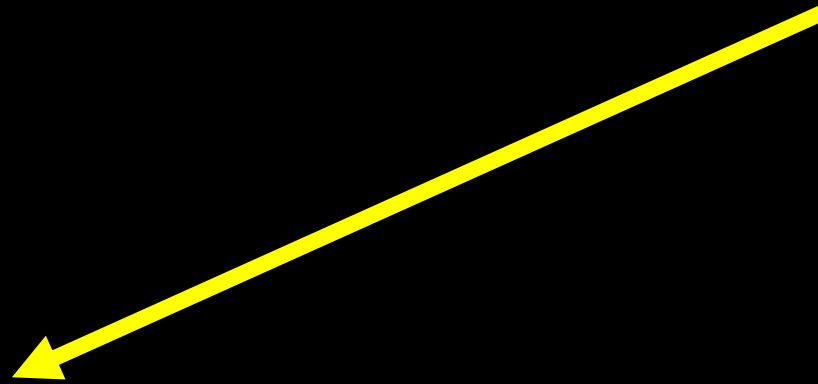
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  });
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```

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  bind("@value",".",".value");
```



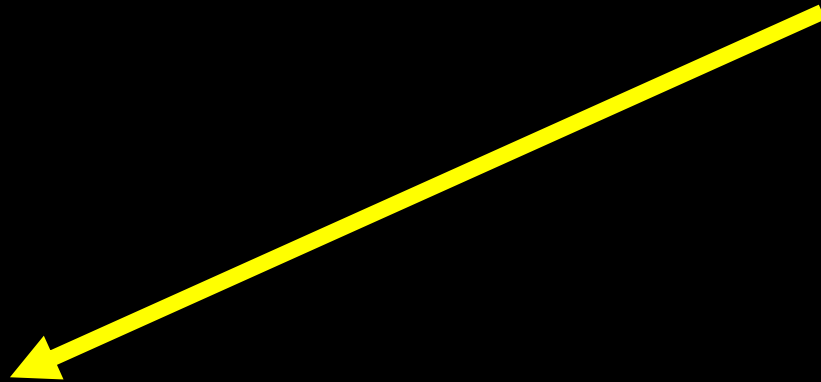
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  });
});
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```



```
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  html("./my-list.html");
  css("./my-list.css");
```

```
  attribute("value","");
  attribute("label","");
  property("value","");
```

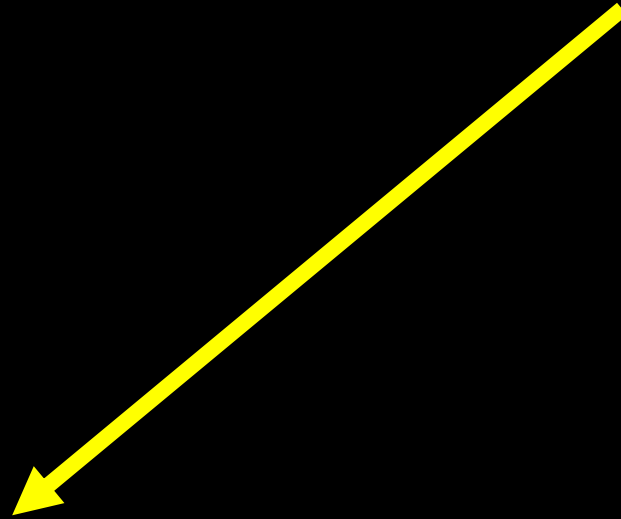
```
  bind("@label","label","$");
  bind("@value",".",".value");
```

```
  onEvent("click",(event,element)=>{
```

```
    ...
```

```
  });
```

```
});
```



ZephJS Provides a ton of documentation to help you use it...

## Getting Started

- [Introducing ZephJS](#)
- [Component Quick Start Guide](#)
- [Frequently Asked Questions](#)

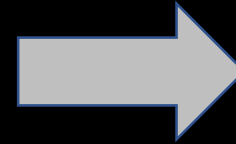
## Components

- [Component Quick Start Guide](#)
- [Component Concepts](#)
- [Creating a New Component](#)
- [Importing ZephJS](#)
- [Defining the Component](#)
- [Inheritance](#)
- [HTML](#)
- [CSS](#)
- [Resources](#)
- [Attributes](#)
- [Properties](#)
- [Lifecycle Handlers](#)
- [Bindings](#)



./my-widget.js

```
ZephComponents.define("my-widget",()=>{  
  ... definition methods ...  
});
```



ZephJS

Component  
Context

Component  
Class



./index.html

```
...  
<my-widget>  
</my-widget>  
...
```



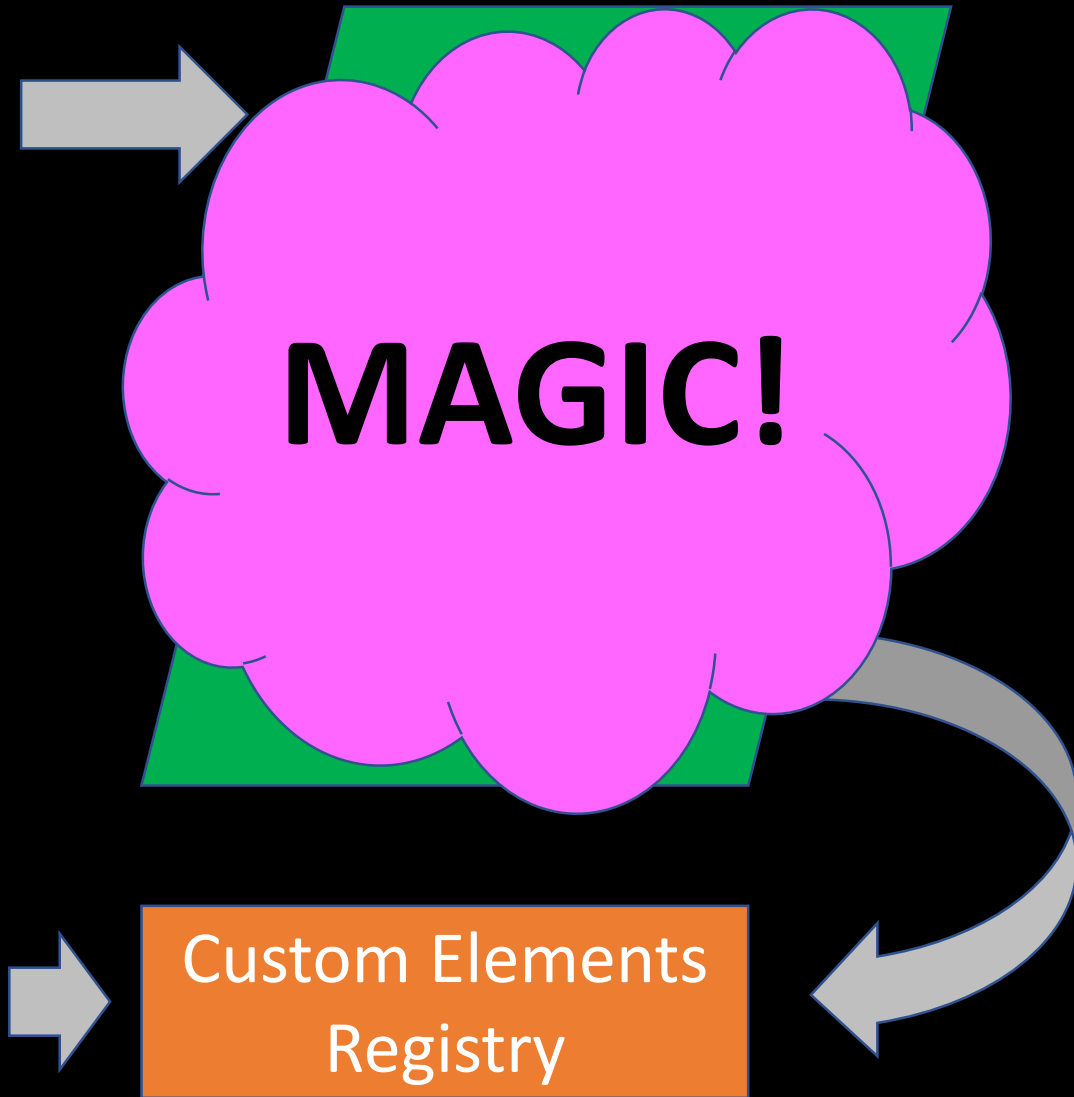
Custom Elements  
Registry

./my-widget.js

```
ZephComponents.define("my-widget",()=>{  
  ... definition methods ...  
});
```

./index.html

```
...  
<my-widget>  
</my-widget>  
...
```





**LIVE CODING**



# ZephJS

---

**npm repo zephjs**

**[github.com/awesomeeng/zephjs](https://github.com/awesomeeng/zephjs)**

Fun Fact: This is Zephyr our kitten, for whom ZephJS is named. Hi Zephyr!



**Try**



**Star**



**Tweet**



Still not a picture of  
Shane buying you  
Free Beer





# ZephJS

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**npm repo zephjs**

**[github.com/awesomeeng/zephjs](https://github.com/awesomeeng/zephjs)**

**Glen R. Goodwin**  
**Awesome Engineering**