

Яндекс



Веб-компоненты: светлое настоящее

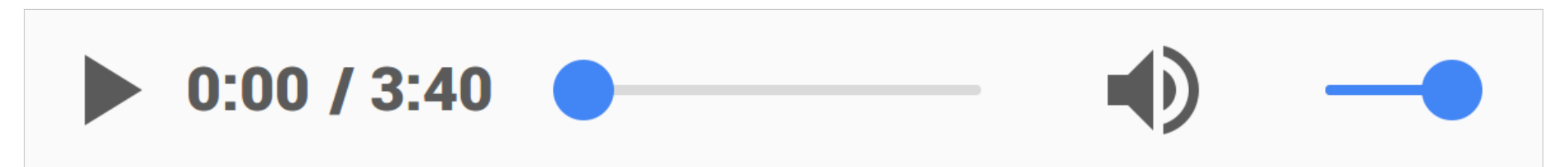
Вадим Черненко

HTML

```
<div id="jp_container" class="jp-audio" role="application" aria-label="media player">
  <div class="jp-type-single">
    <div class="jp-gui jp-interface">
      <div class="jp-controls">
        <button class="jp-play" role="button" tabindex="0">play</button>
        <button class="jp-stop" role="button" tabindex="0">stop</button>
      </div>
      <div class="jp-progress">
        <div class="jp-seeking-bar" style="width: 100%;">
          <div class="jp-play-bar" style="width: 0%;"></div>
        </div>
      </div>
      <div class="jp-volume-controls">
        <button class="jp-mute" role="button" tabindex="0">mute</button>
        <button class="jp-volume-max" role="button" tabindex="0">max volume</button>
        <div class="jp-volume-bar">
          <div class="jp-volume-bar-value" style="width: 80%;"></div>
        </div>
      </div>
      <div class="jp-time-holder">
        <div class="jp-current-time" role="timer" aria-label="time">00:00</div>
        <div class="jp-duration" role="timer" aria-label="duration">-03:40</div>
        <div class="jp-toggles">
          <button class="jp-repeat" role="button" tabindex="0">repeat</button>
        </div>
      </div>
    </div>
    <div class="jp-details">
      <div class="jp-title" aria-label="title">Awesome Track</div>
    </div>
  </div>
</div>
```

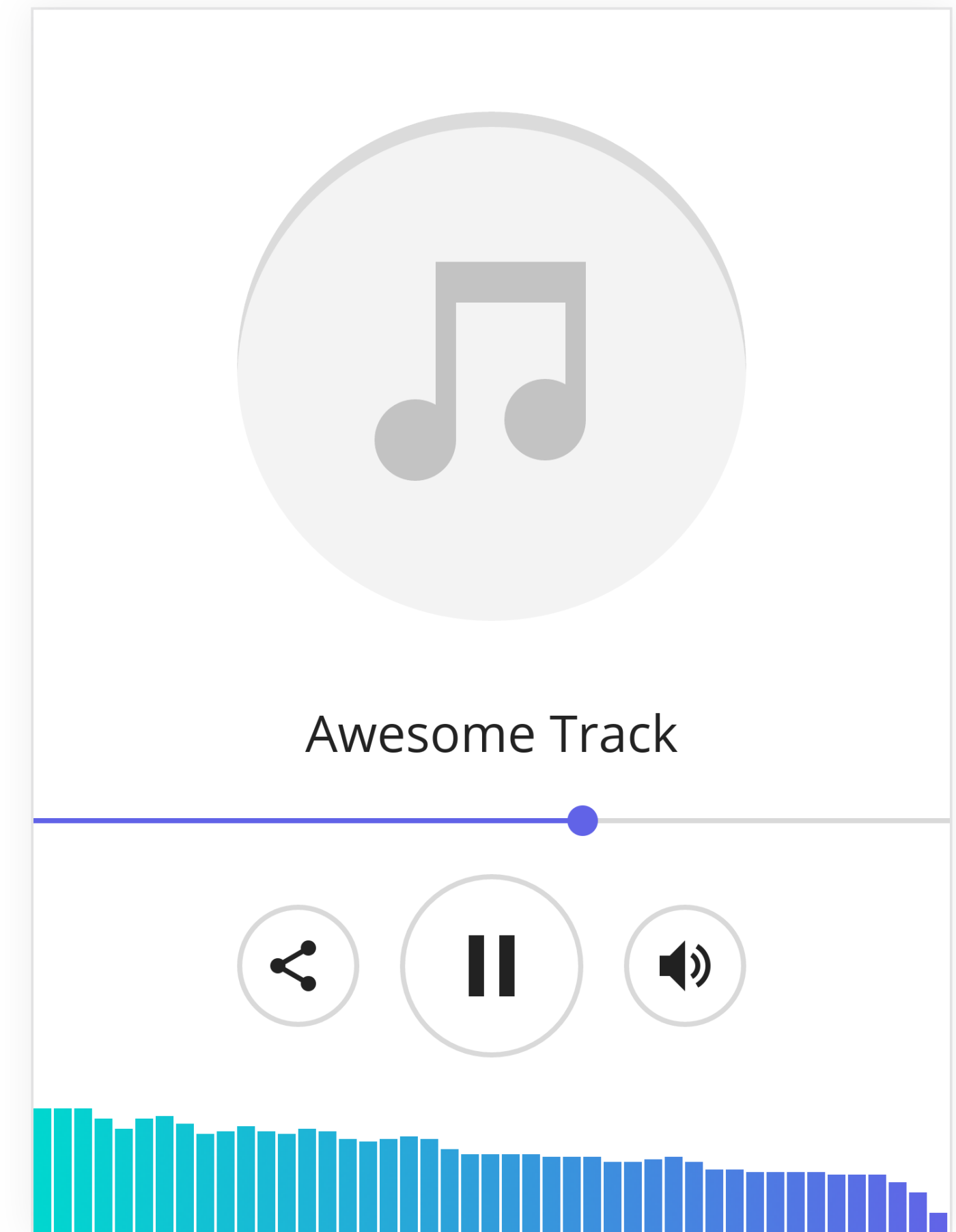
HTML5

```
<audio src="track.mp3"  
      controls="controls">  
</audio>
```



Web Components

```
<fancy-audio src="track.mp3"  
             autoplay="true"  
             visualizer="on">  
</fancy-audio>
```



Веб-компоненты:

- › Custom Elements
- › Shadow DOM
- › HTML Templates
- › HTML Imports



Custom Elements



Custom Elements: особенности

- › Жизненный цикл
- › Расширение стандартных элементов
- › Две редакции спецификации



Регистрация элемента (v0)

```
var proto = Object.create(HTMLElement.prototype);

proto.createdCallback = function () {
    this.textContent = 'Hello, world!';
};

window.CustomElement = document.registerElement('custom-element', {
    prototype: proto
});
```

Регистрация элемента (v1)

```
window.CustomElement = class CustomElement extends HTMLElement {  
  constructor() {  
    super();  
    this.textContent = 'Hello, world!';  
  }  
};
```

```
window.customElements.define('custom-element', CustomElement);
```

Shadow DOM



Shadow DOM: особенности

- › Два режима
- › Связь с Light DOM
- › Две редакции спецификации



Использование Shadow DOM

```
// v0
```

```
var shadowRoot = element.createShadowRoot();
```

```
// v1
```

```
var shadowRoot = element.attachShadow({  
  mode: 'open'  
});
```

```
shadowRoot.innerHTML = '<strong>Hello, world!</strong>';
```

```
element.shadowRoot.querySelector('strong').textContent = 'Hello!';
```

HTML Templates



HTML Templates: особенности

- › Скрытое и инертное содержимое
- › Стабильная спецификация



Работа с шаблоном

```
<template>  
  <strong></strong>  
</template>
```

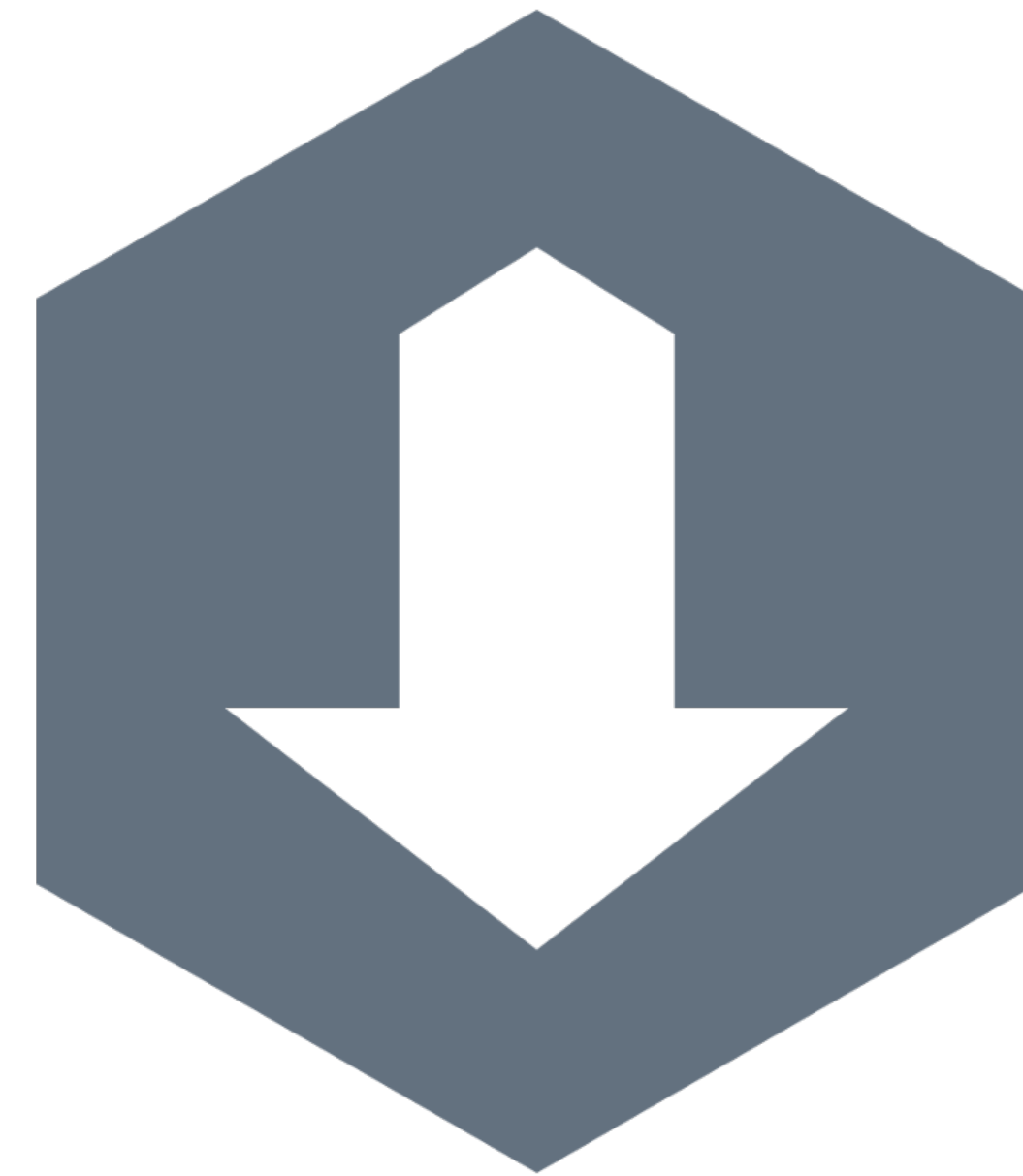
```
<script>  
  var template = document.querySelector('template'),  
      templateContent = document.importNode(template.content, true);  
  
  templateContent.querySelector('strong').textContent = 'Hello!';  
</script>
```


HTML Imports



HTML Imports: особенности

- › CORS
- › Вложенные импорты
- › Применение стилей и выполнение сценариев



Импорт документа

```
<link rel="import" href="file.html">
```

```
<script>
```

```
    var link = document.querySelector('link[rel="import"]'),  
        importedElement = link.import.querySelector('span');
```

```
</script>
```





- <> Code
- ! Issues 5
- 🔗 Pull requests 2
- 📁 Projects 0
- 📈 Pulse
- 📊 Graphs

Web component extensions to the standard <time> element.

📄 274 commits

🌿 3 branches

📦 13 releases

👥 9 contributors


📄 MIT

Branch: master

New pull request

Find file

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 dgraham committed on GitHub Remove broken images		Latest commit f612b84 8 days ago
examples	Refactor as ES modules with rollup	2 months ago
src	Refactor as ES modules with rollup	2 months ago
test	Refactor as ES modules with rollup	2 months ago
.gitignore	Refactor as ES modules with rollup	2 months ago
.npmignore	Refactor as ES modules with rollup	2 months ago
.travis.yml	Cache prebuilt phantomjs	2 months ago
CONTRIBUTING.md	Update package name	3 years ago
LICENSE	Add LICENSE	3 years ago
MAINTAINING.md	Remove bower	2 months ago
Makefile	Refactor as ES modules with rollup	2 months ago
README.md	Remove broken images	8 days ago
package.json	Refactor as ES modules with rollup	2 months ago
rollup.config.js	Refactor as ES modules with rollup	2 months ago
rollup.legacy-config.js	Refactor as ES modules with rollup	2 months ago

📖 README.md

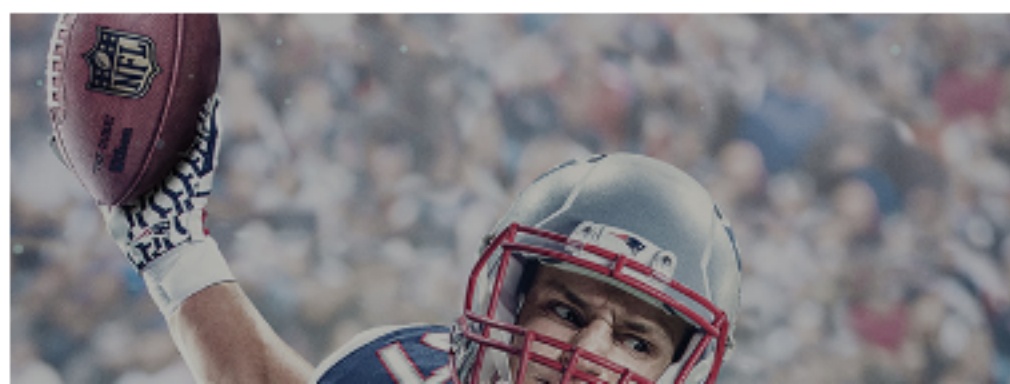
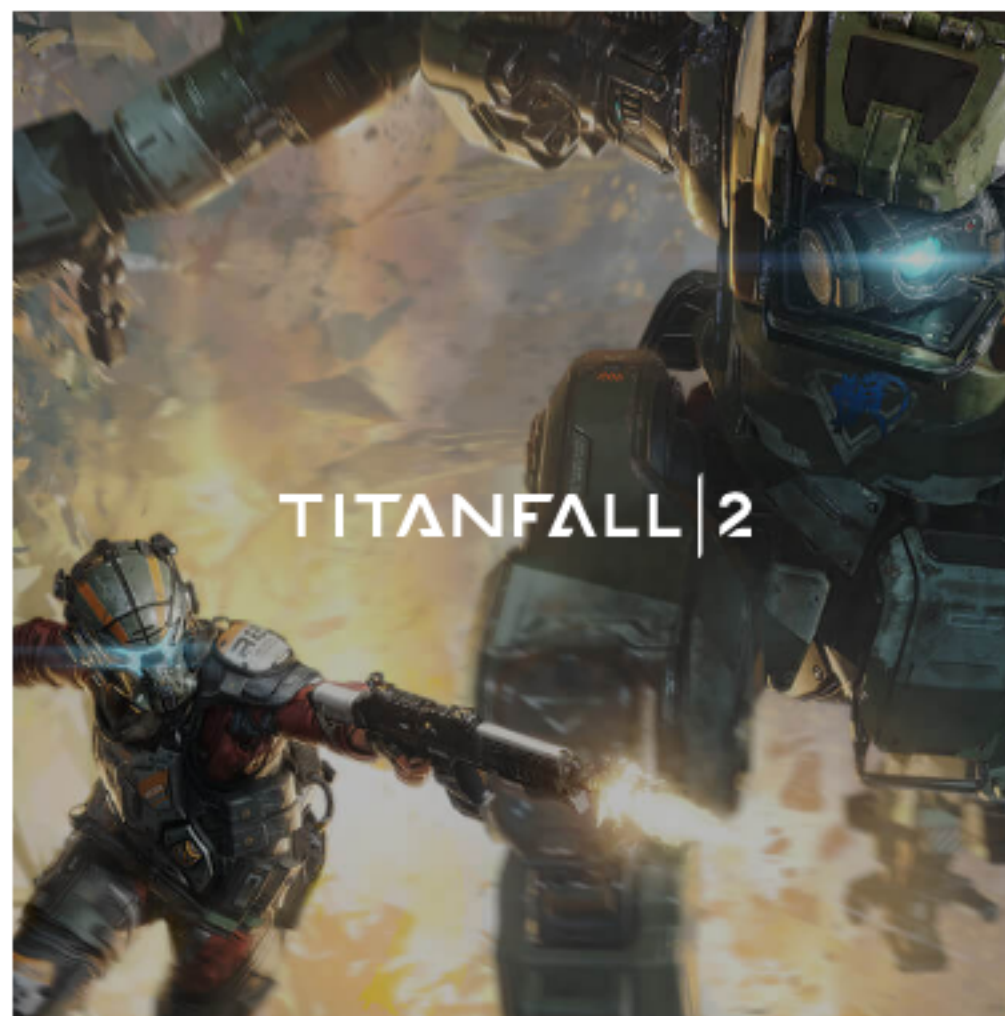
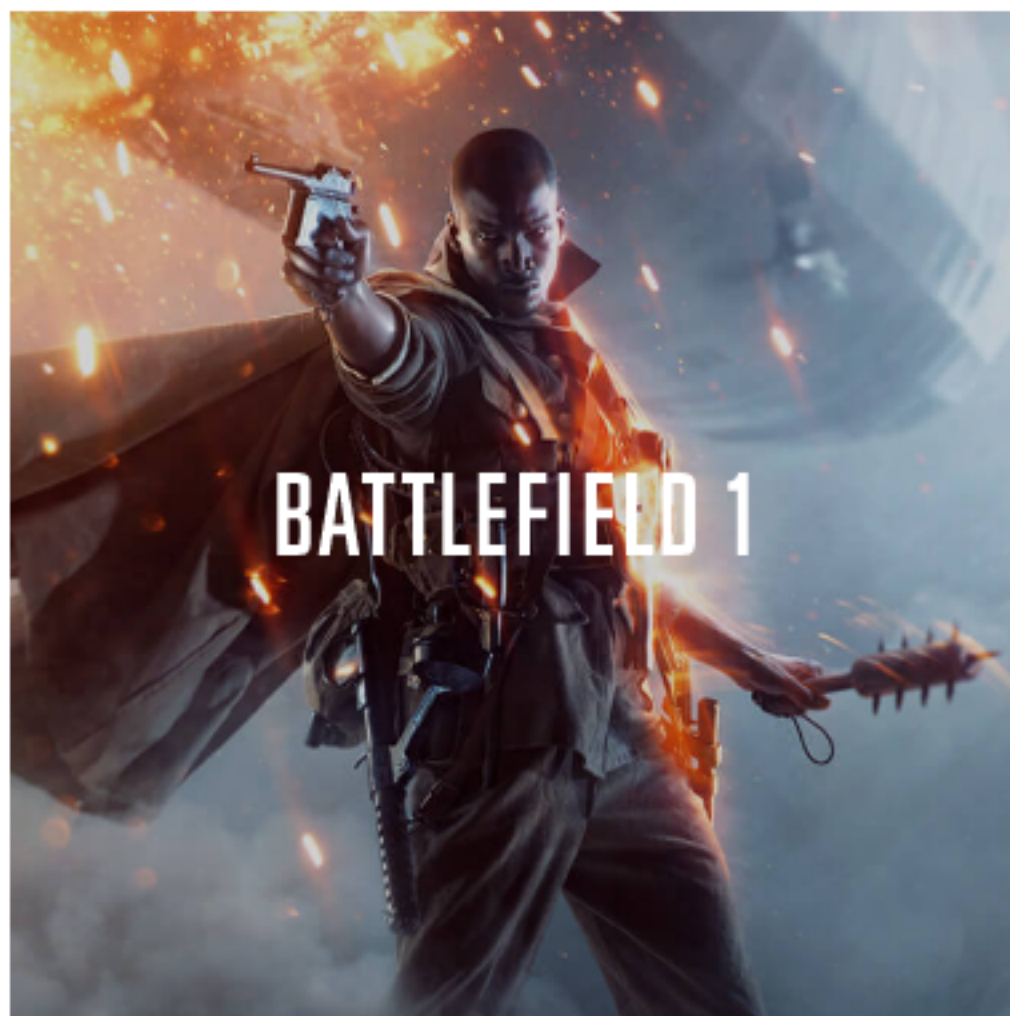
<time> element extensions

Formats a timestamp as a localized string or as relative text that auto-updates in the user's browser.

This allows the server to cache HTML fragments containing dates and lets the browser choose how to localize the displayed

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Elements Console Sources Network Timeline

```
<ea-network-nav userdata="/user-data" content="//network-
nav.ea.com/ru-ru/network-nav" hide-logo visible="scrollup" class=
"hide-nav">...</ea-network-nav>
<nav is="ea-local-nav" home-text="Electronic Arts Home" home-
tooltip home-link="/ru-ru/" logo-image="

https://prod-media-eacom.pulse.ea.com/content/eacom/ru_RU/_global/_
jcr_content/ccm/componentwrapper/components/localnav/
logoImage.img.png
" logo-tooltip="Electronics Arts Home" theme="dark" shelf-type="band"
open-drawer-text="Меню" open-drawer-tooltip="Открыть меню" close-
drawer-text="Закрыть" close-drawer-tooltip="Закрыть меню" hide-
featured-product mini class="eapl-local-nav-mini">...</nav>
<ea-section type="full-bleed" layout="100" background-color="none"
background-overflow="visible" spacing-top="small" spacing-bottom=
"medium">
  <template is="dom-if" class="style-scope ea-section">...</template>
  <ea-section-column text-align="left" class="eapl-section-column
eapl-section-column-100">
    <ea-hero layout="large" text-position="center" text-align=
"center" text-color="light" background-color="light" title-text=
"ДОБРО ПОЖАЛОВАТЬ В МИР ИГР" subtitle-text="10-12 июня | The
Hollywood Palladium | Смотрите на EA.com" image-smallest="

https://prod-media-eacom.pulse.ea.com/content/eacom/ru_RU/_
jcr_content/bodyPar/section_a43d/columns/column/content/hero/
image/xsmall.img.png
" image-small="

https://prod-media-eacom.pulse.ea.com/content/eacom/ru_RU/_
jcr_content/bodyPar/section_a43d/columns/column/content/hero/
image/small.img.png
" image-medium="

https://prod-media-eacom.pulse.ea.com/content/eacom/ru_RU/_
jcr_content/bodyPar/section_a43d/columns/column/content/hero/
image/medium.img.png
" image-large="

https://prod-media-eacom.pulse.ea.com/content/eacom/ru_RU/_
jcr_content/bodyPar/section_a43d/columns/column/content/hero/
image/large.img.png
" image-largest="

https://prod-media-eacom.pulse.ea.com/content/eacom/ru_RU/_
jcr_content/bodyPar/section_a43d/columns/column/content/hero/
image/xlarge.img.png
" image-tooltip logo-image="

https://prod-media-eacom.pulse.ea.com/content/eacom/ru_RU/_
jcr_content/bodyPar/section_a43d/columns/column/content/hero/
logoImage.img.png
" spacing-bottom="medium" scrim-color="none" scrim-opacity=
"medium">...</ea-hero>
```

html ...

Styles Event Listeners DOM Breakpoints Properties

Filter :hov .cls +

element.style {
}
html:not([style-scope]):not(.style-scope) {
 --ea-theme-color: #ff1e3c;
 --ea-theme-dark-gradient: #D21832;
 --ea-theme-light-gradient: #FC2442;
 --ea-theme-secondary-font-family: open-sans;
 --ea-theme-primary-font-family: open-sans;
 --ea-theme-d2-font-size-desktop: 72px;
 --ea-theme-d2-line-height-desktop: 88px;
 --ea-theme-d2-font-size-tablet-landscape: 56px;
 --ea-theme-d2-line-height-tablet-landscape: 64px;

margin —
border —
padding —
1399 × 4596.160

Filter Show all

- > --dark-disabled... 0.38
- > --dark-divider-... 0.12
- > --dark-primary-... 0.87
- > --dark-secondar... 0.54
- > --ea-access-bra... #008...

Time to code!



Исходный код демки

<https://github.com/plainobject/FancyProgress>

Дополнительная информация

- › Web Components and Model Driven Views by Alex Russell
- › Web Components: Introduction
- › Custom Elements v1: Reusable Web Components
- › Shadow DOM v1: Self-Contained Web Components
- › Polymer Project

Спасибо!

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