

### Timeline

#### August 5th

No new features LTS Candidate 3.13 Beta

#### September 16th

3.12 becomes LTS

3.14 Beta

First release that contains all of Octane's features

First release of Ember that defaults to Octane

Ember Inspector

3.12

3.13

3.14

### Classic vs. Octane

## Application Template Wrapper

#### **Classic Mode**



#### **Octane Mode**

\$ ember feature:disable application-template-wrapper

# jQuery

#### **Classic Mode**

- jQuery is included by default.
- Ember components have a this.\$ method.

#### **Octane Mode**

jQuery is not included by default

\$ ember feature:disable jquery-integration

### Template-only Components

#### **Classic Mode**

• Template-only components get an implicit component class.

#### **Octane Mode**

 Template-only components have <u>no</u> (implicit or otherwise) component class.

\$ ember feature:enable template-only-glimmer-component

### Observers

#### **Classic Mode**

Observers fire synchronously by default

#### **Octane Mode**

Observer fire asynchronously by default

\$ ember feature:enable default-async-observers

# Idiom Changes

## Ember vs. Standard Class Syntax

#### **Classic Mode Idiom**

subclass from framework classes

```
Route.extend({ ... })
Controller.extend({ ... })
```

#### **Octane Mode Idiom**

 subclass from framework classes using JavaScript class syntax

```
class extends Route {...}
```

class extends Controller {...}

## Computed vs. @tracked

#### Classic Mode Idiom

State that could influence the output ("mutable state") is marked using .set or
 Ember.set and use computed from @ember/object to describe derived state. Computed properties enumerate their dependent keys explicitly.

#### **Octane Mode Idiom**

 State that could influence the output is marked as @tracked.
 No other annotations are needed.

### Components

#### **Classic Mode Idiom**

• Components subclass from <a href="@ember/component">@ember/component</a>. They use APIs like classNameBinding to configure the root element, and use lifecycle hooks on the component class to interact with the DOM.

#### **Octane Mode Idiom**

• Components subclass from <code>@glimmer/component</code>. They describe all elements, including the root element, in the template. They use modifiers to interact with the DOM.

# {{action}} vs. {{on}}}

#### **Classic Mode Idiom**

 To handle events on a component's root element, create a method on the component that corresponds to the event. To handle events on another element, use the {{action}} helper and put the action in the actions hash in your component.

#### **Octane Mode Idiom**

 To handle events on an element, use the {{on}} helper.

### Curly Braces vs. Angle Brackets

#### Classic Mode Idiom

Components are invoked using {{component-name}} and {{#component-name}} syntax.

#### **Octane Mode Idiom**

You invoke components using
 ComponentName> syntax.

### Implicit vs. required this

#### **Classic Mode Idiom**

You can refer to properties on the component as {{propertyName}}

#### **Octane Mode Idiom**

References to properties on a component must be {{this.propertyName}}

## File Layout

#### **Classic Mode Idiom**

 A component's files are in two places:

app/components/componentname.js

app/templates/components/component-name.hbs

#### **Octane Mode Idiom**

 A component's files are in the same place:

app/components/componentname.js

app/components/componentname.hbs

# Migration

A reasonable approach

1. Migrate away from observers before migrating to <a>@tracked</a>

- 2. The template codemods are generally easier and more automatable, so they should be done first:
  - ember-angle-brackets-codemod
  - ember-no-implicit-this-codemod

3. Classic Component Changes

Step 3.1: remove use of implicit this

3. Classic Component Changes

Step 3.2: migrate to tagName:

Step 3.2: migrate to tagName: "

- 1. wrap your component in a root element
- 2. Change classNames to class="..."
- 3. Change classNameBindings to class={{...}}
- 4. Change attributeBindings becomes attr={{...}}
- 5. Change methods like <a href="click">click</a> to <a href="click">{{on "click"}}</a>
- 6. move DOM manipulation logic to modifiers (or at least <u>ember-render-modifiers</u>)

3. Classic Component Changes

Step 3.3: migrate {{action}} and the actions hash to {{on}} in the template and @action in the component.js file

3. Classic Component Changes

Step 3.4: migrate to native class syntax

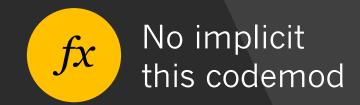
3. Classic Component Changes

Step 5: migrate .set and computed properties to @tracked

### Codemods

Native class codemod





https://github.com/ember-codemods

### Reference Materials

 https://ember-learn.github.io/ember-octanevs-classic-cheat-sheet/

 https://codingitwrong.com/2019/07/23/em ber-component-cheat-sheet.html

# Extra Support

- ember-template-lint
  - Updates for Octane support
  - New ally rules
- #topic-octane-migration



