

Write powerful Javascript modules to make your apps **DRY**

DevNation 2016

Brian Leathem

@bleathem

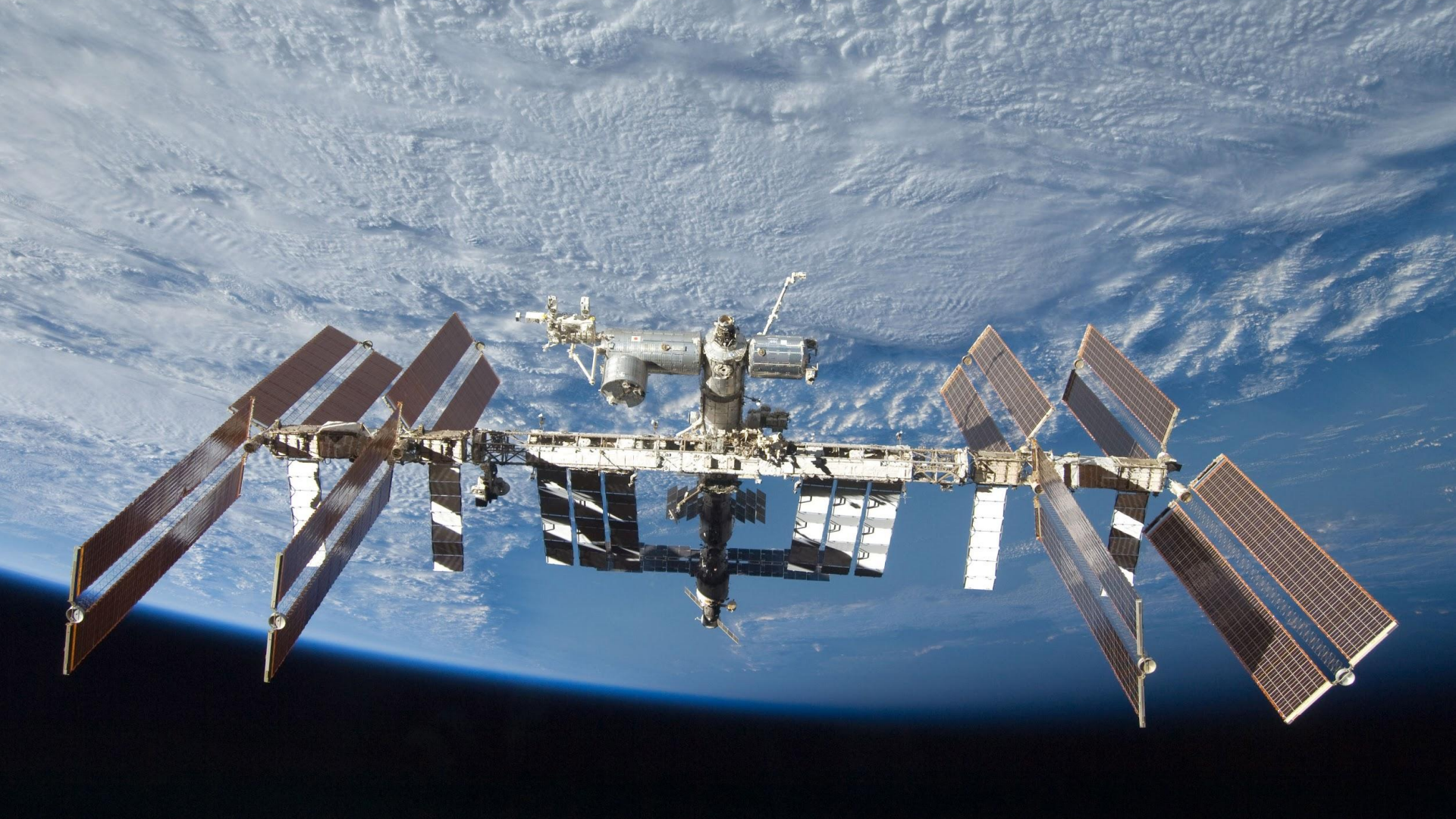
RED HAT®
MOBILE APPLICATION
PLATFORM

Field Workforce Management



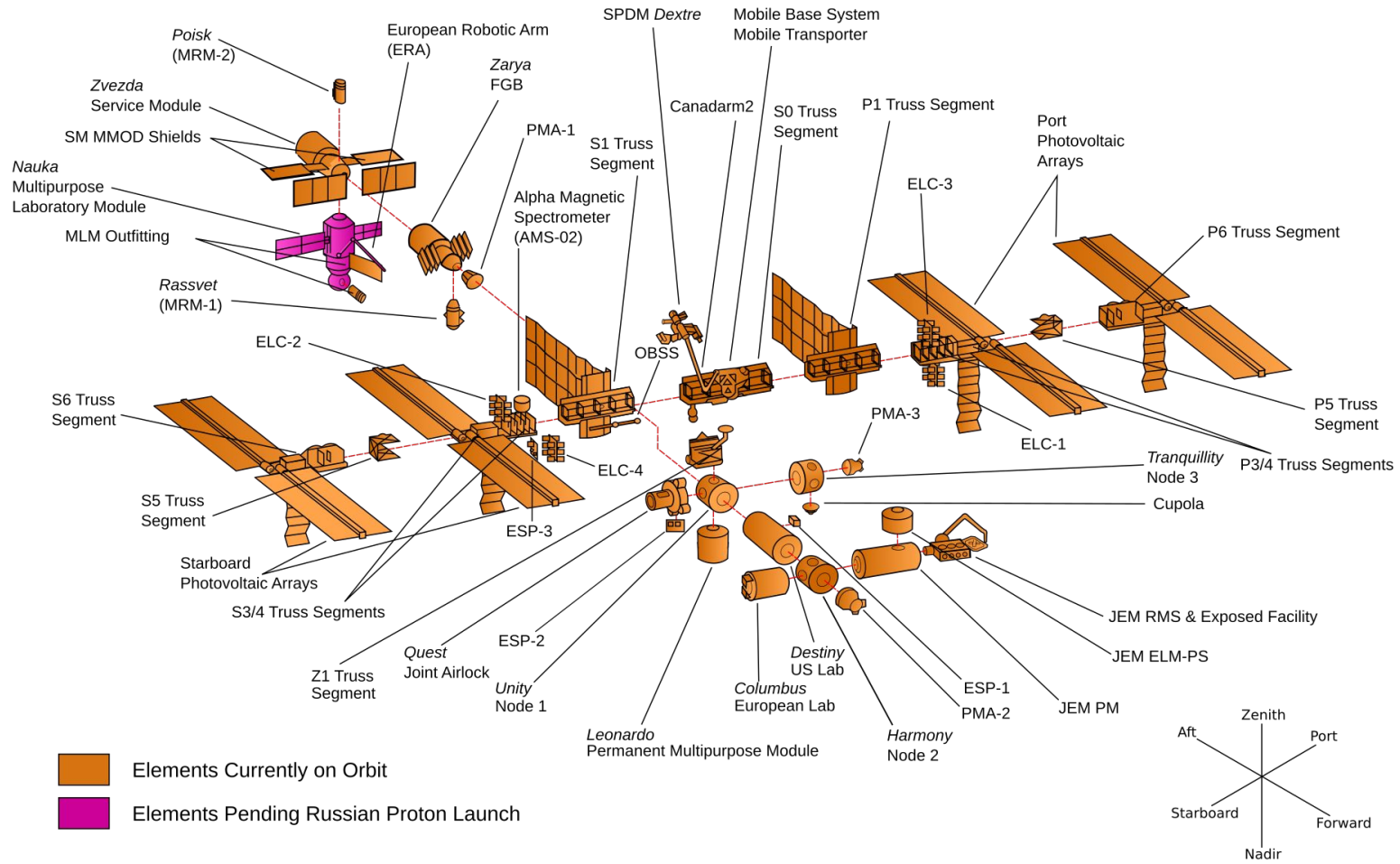


Modularity

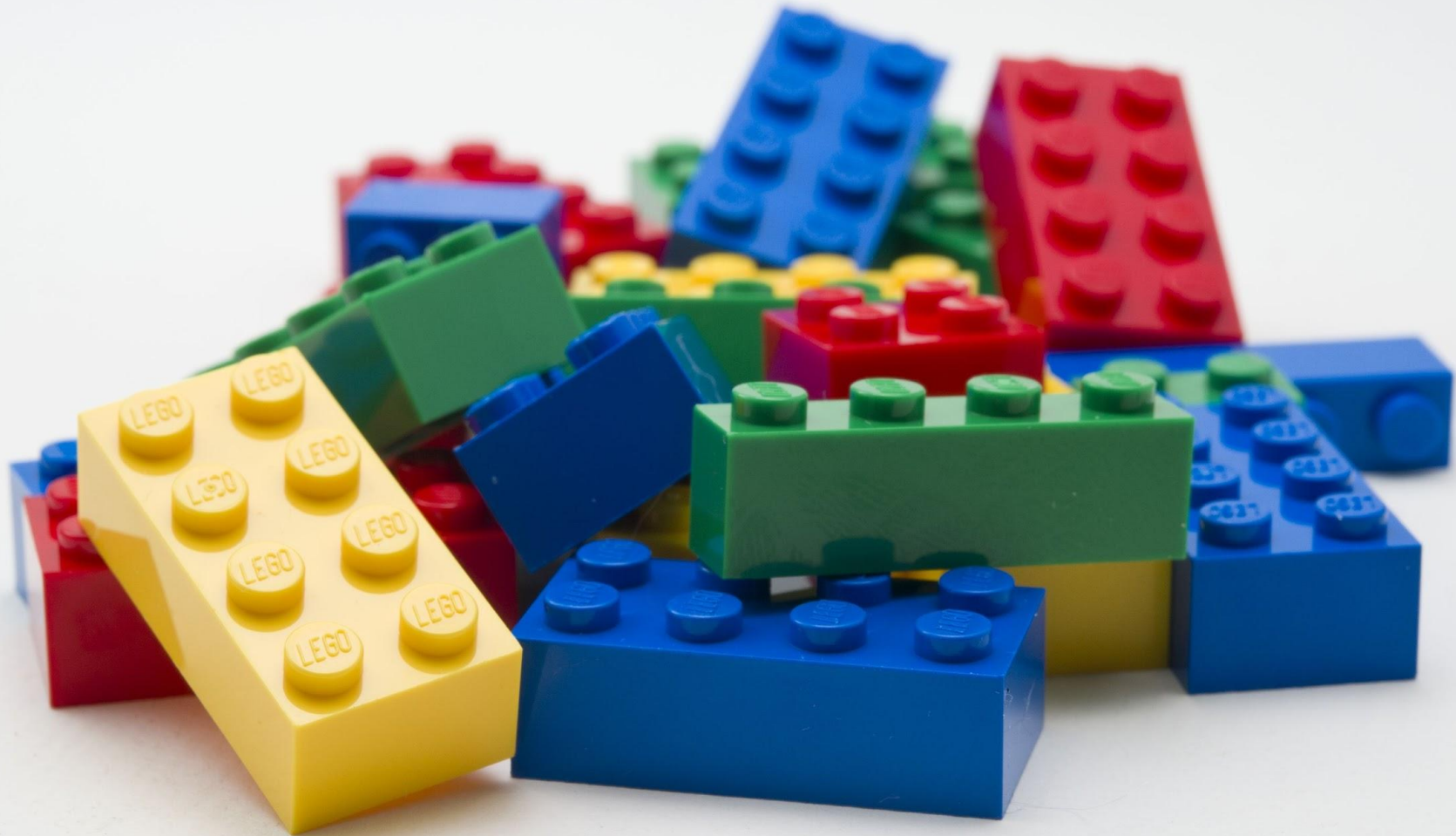


ISS Configuration

As of May 2011 (ULF6 - STS-134)

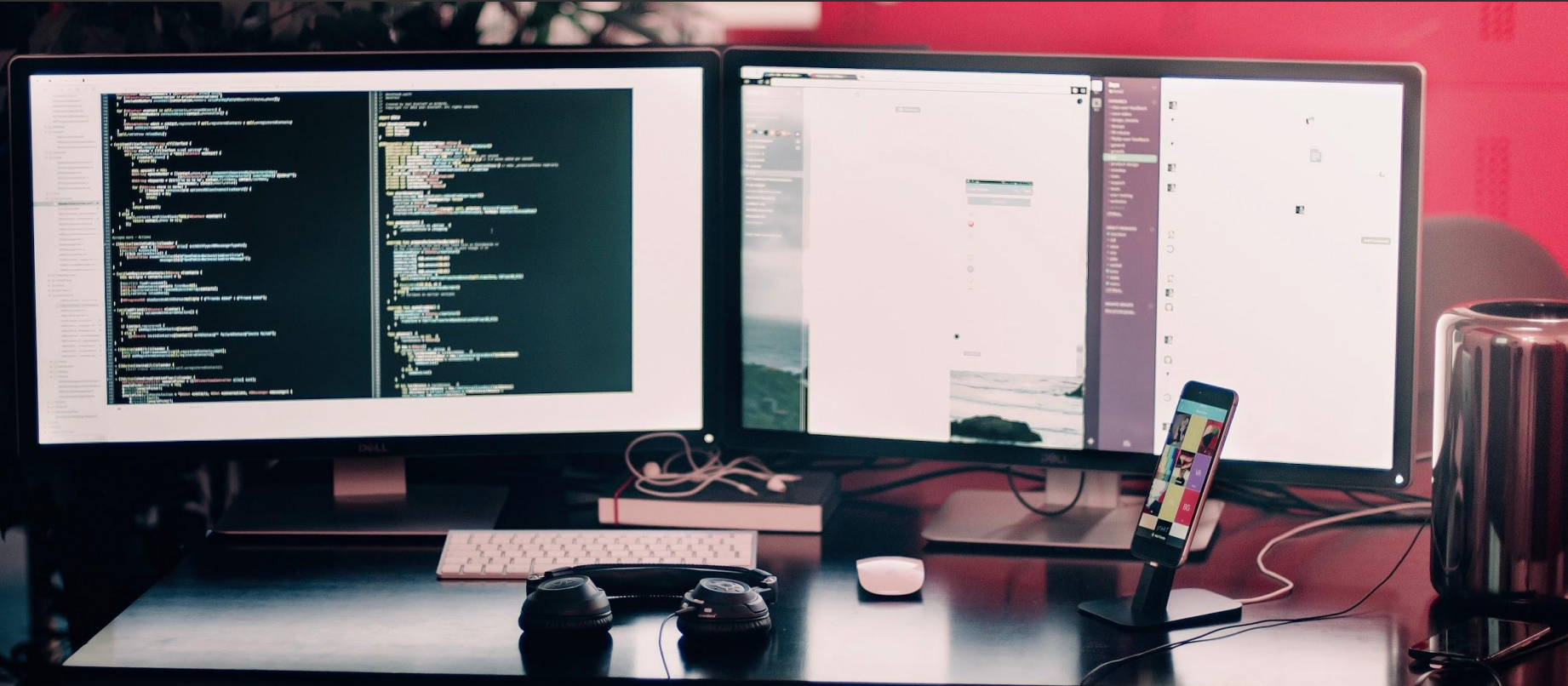








Modularity in Software Engineering





Java™





At large scale



Keynote Microservices

At small scales: Keeping your code DRY



Don't
Repeat
Yourself

Why **DRY**?

Bring it back to
javascript



Front-end and back-end

Javascript Libraries

LO

The logo for Lodash, featuring the letters 'LO' in a large, bold, black sans-serif font. Below the letters is a thick, solid blue horizontal bar.

UNDERSCORE.JS

The logo for Underscore.js, featuring the text 'UNDERSCORE.JS' in a dark blue, all-caps, sans-serif font. Below the text is a horizontal bar that is split into two segments: a lighter blue segment on the left and a darker blue segment on the right.

Javascript Build Tools



Testing



Frontend / UI



Javascript Libraries



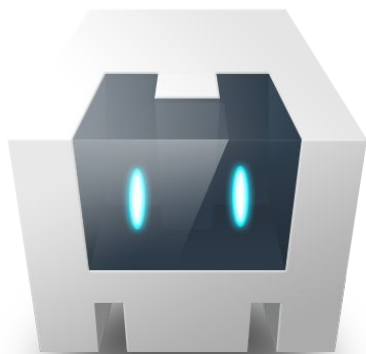
Other libraries



More prescriptive frameworks

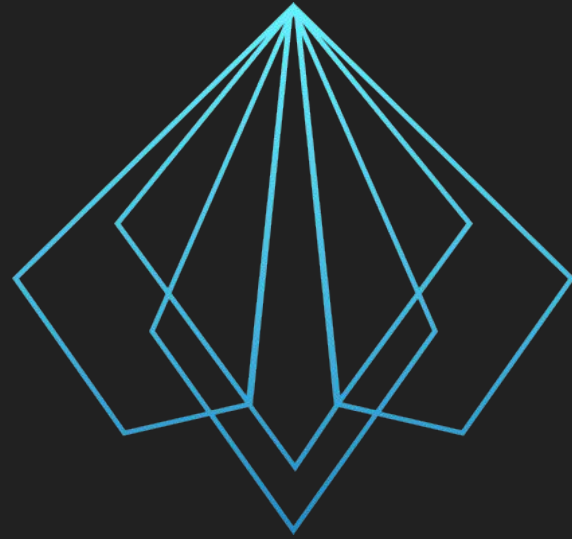


Cordova plugins



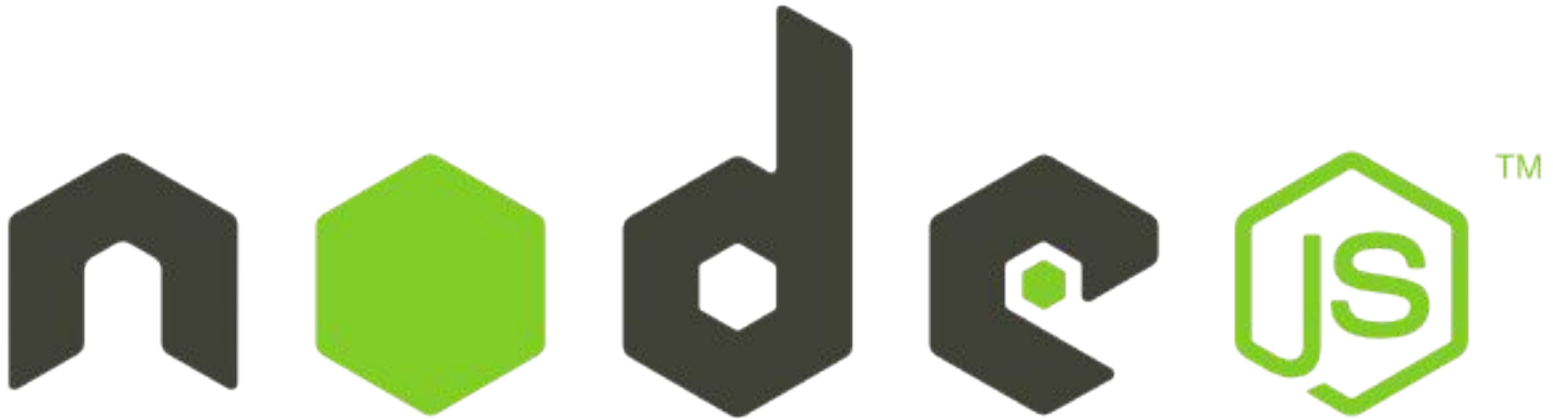
APACHE
CORDOVA™

CSS libraries



Block
Element
Modifier

Backend



Module Packaging & Delivery



Module Repository

Bower is dead.

Npm is king.

Jspm is looking good.



WFM

Modularity

Considerations for a module system

A wooden desk with a light-colored wood grain. On the desk, there is a closed orange notebook with a subtle embossed logo. Two black rulers are placed on the desk: one horizontally near the top left and one vertically on the right side. A white pen with a silver band lies horizontally on the right side of the desk. An orange chair with a white metal frame is partially visible on the left side of the frame. The background is a light-colored wooden floor.

WFM

Design Goals

A wooden drafting triangle, likely made of plywood, is positioned diagonally across the frame. It features a ruler scale along its hypotenuse, with markings in inches and centimeters. The triangle is resting on a white surface, possibly a piece of paper or a table. The text "WFM" is overlaid in large, bold, black letters across the center of the triangle.

WFM

Design Constraints



Express



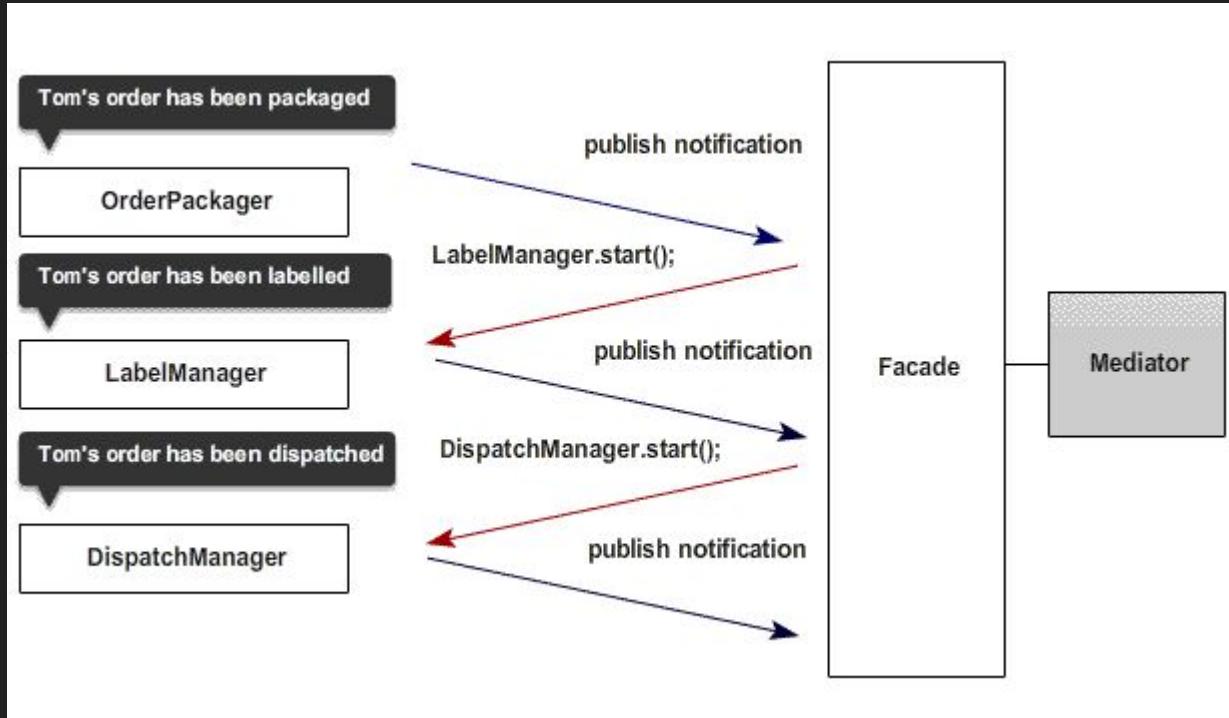
In the module:

```
module.exports = 'wfm.camera';
```

In the application:

```
require('fh-wfm-camera')
```

Mediator Pattern

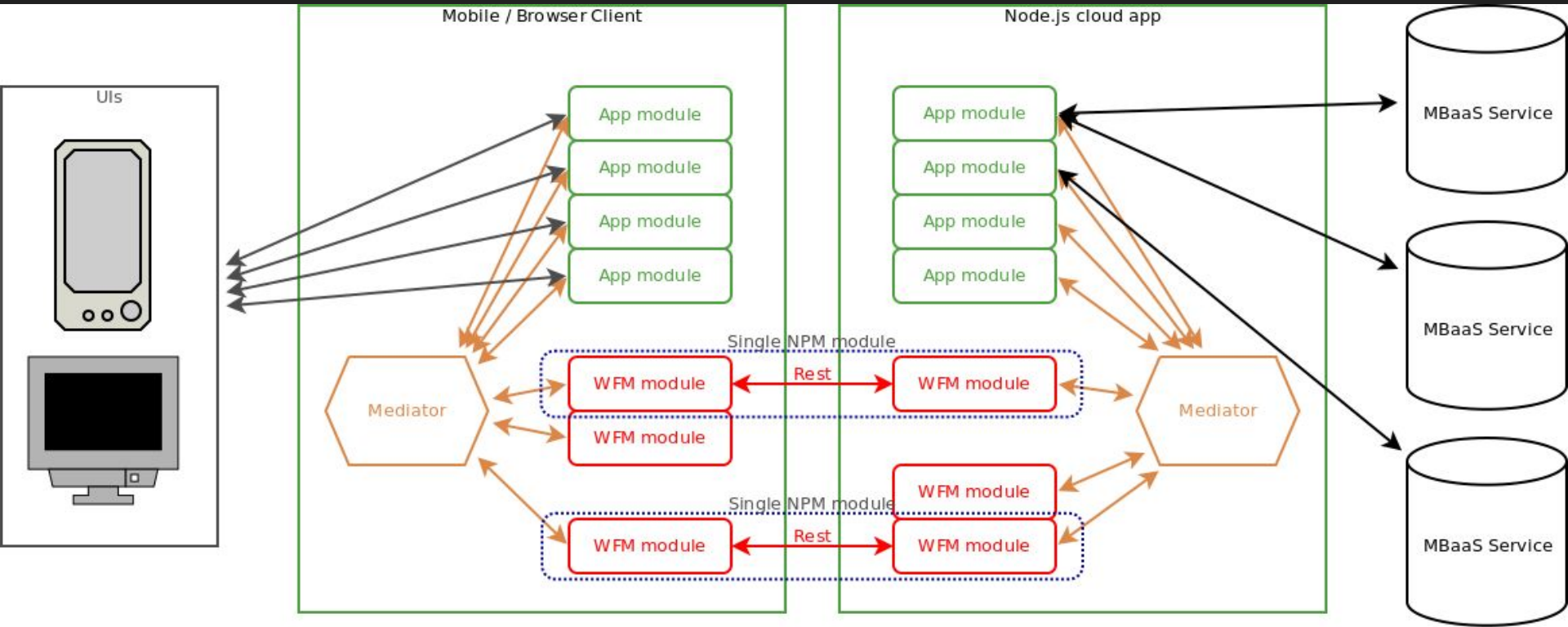


<https://addyosmani.com/largescalejavascript/>

Mediator Pattern in a cloud app

```
mediator.subscribe('wfm:workorder:create:',  
function(object, ts) {  
    self.create(object, ts)  
        .then(function(object) {  
Mediator  
        .publish('done:wfm:workorder:create:' + ts,  
                object);  
    });  
});
```


WFM Architecture





FEEDHENRY

RAINCATCHER

RainCatcher Modules

<https://github.com/feedhenry-raincatcher>

Demo