

# Enyo.js on BlackBerry 10

Building BB10 Applications with the Enyo.js framework

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# Co-Presenters



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Enyo 2.0

Enyo Slides are here:

<http://www.thinmachine.ch/presentations/webcast/>

The background is a solid blue color with several overlapping, semi-transparent shapes in various shades of blue. These shapes include circles, rectangles with rounded corners, and irregular polygons, creating a layered, abstract effect.

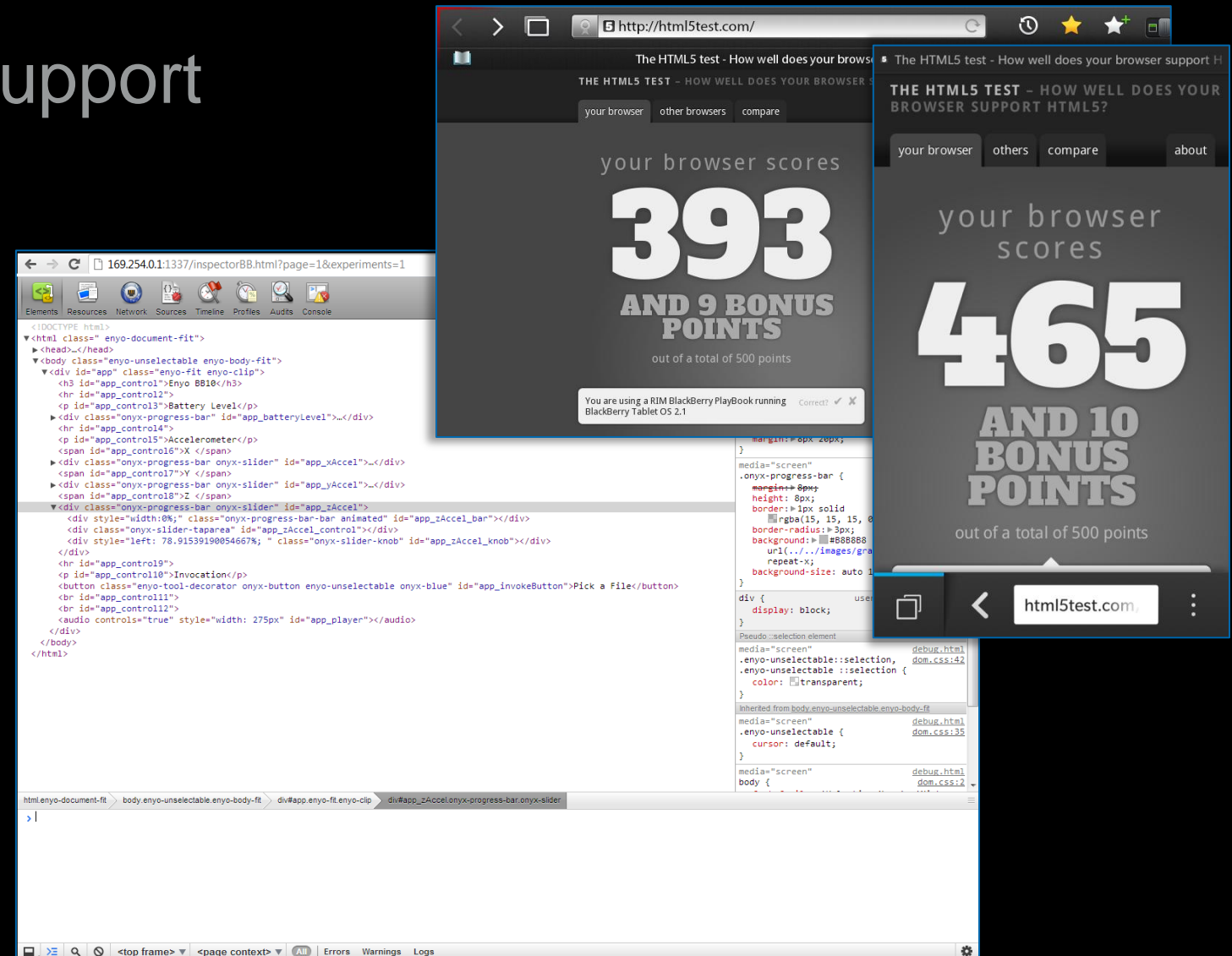
# BlackBerry 10

# BlackBerry Web Platform

Industry Leading Web Standard support

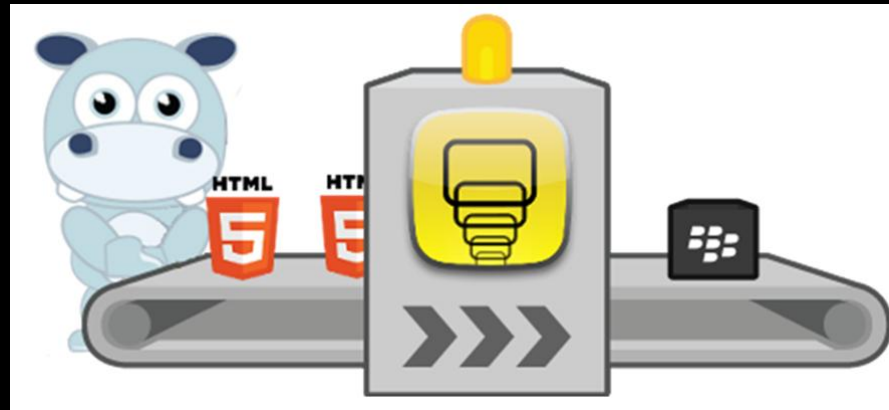
Webkit, WebGL, WebInspector

Hardware Accelerated CSS3



# BlackBerry WebWorks

Go beyond the browser with native capabilities



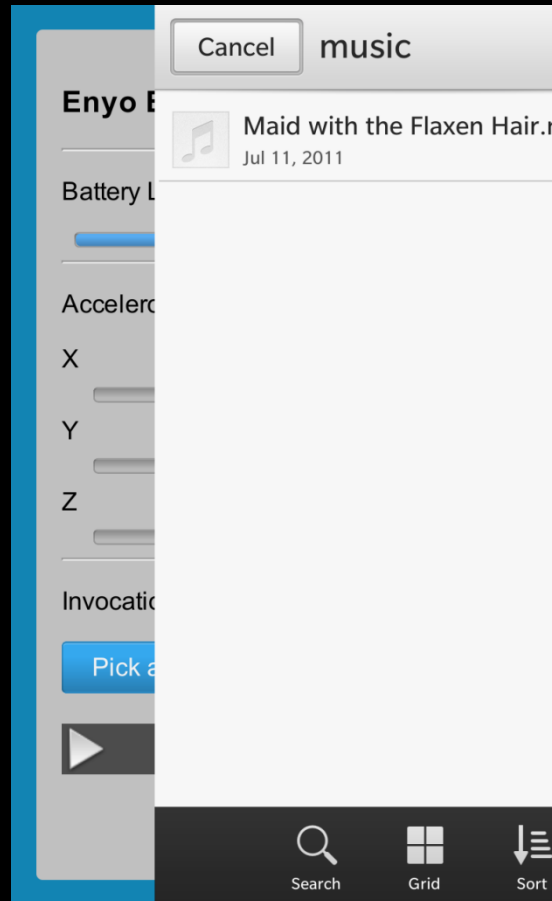
Web Assets

WebWorks Tools

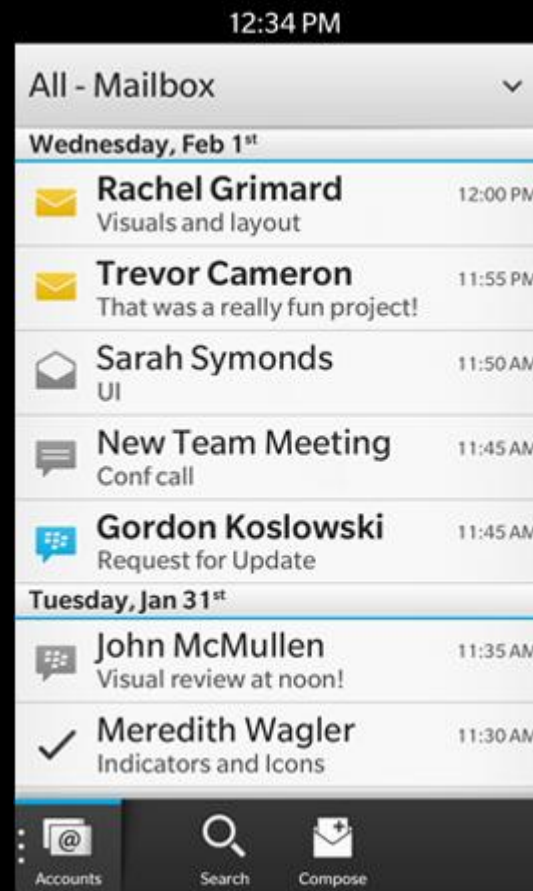
BlackBerry Applications

# BlackBerry WebWorks APIs

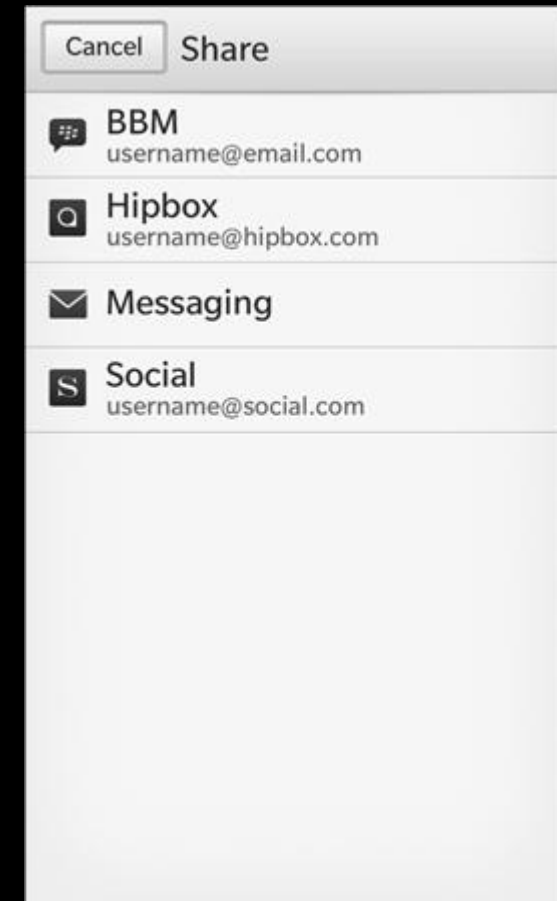
Invocation and Push



Access PIM Data



Share and Integrate BBM

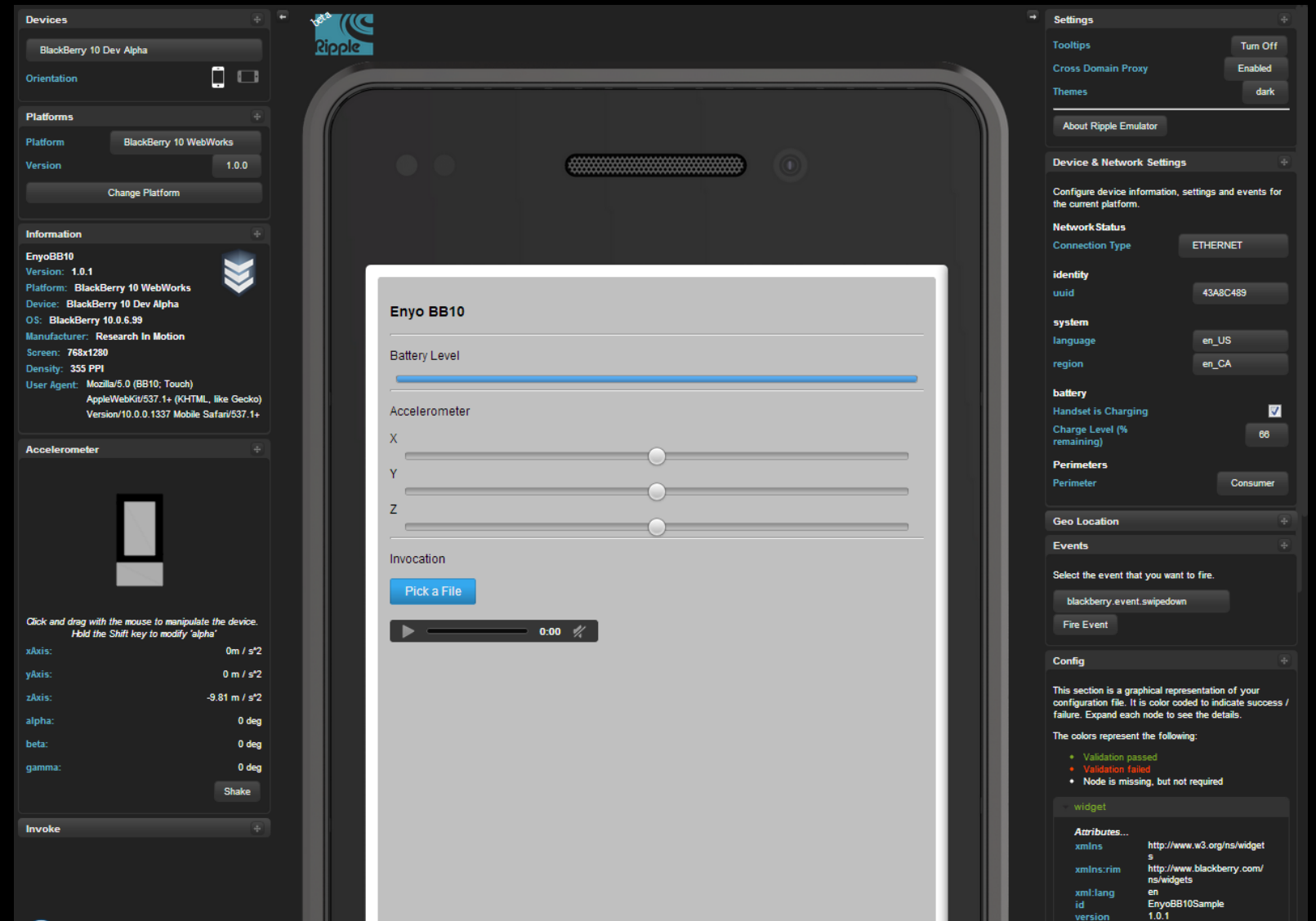


Custom Extensions open even more possibilities



# Ripple Emulator

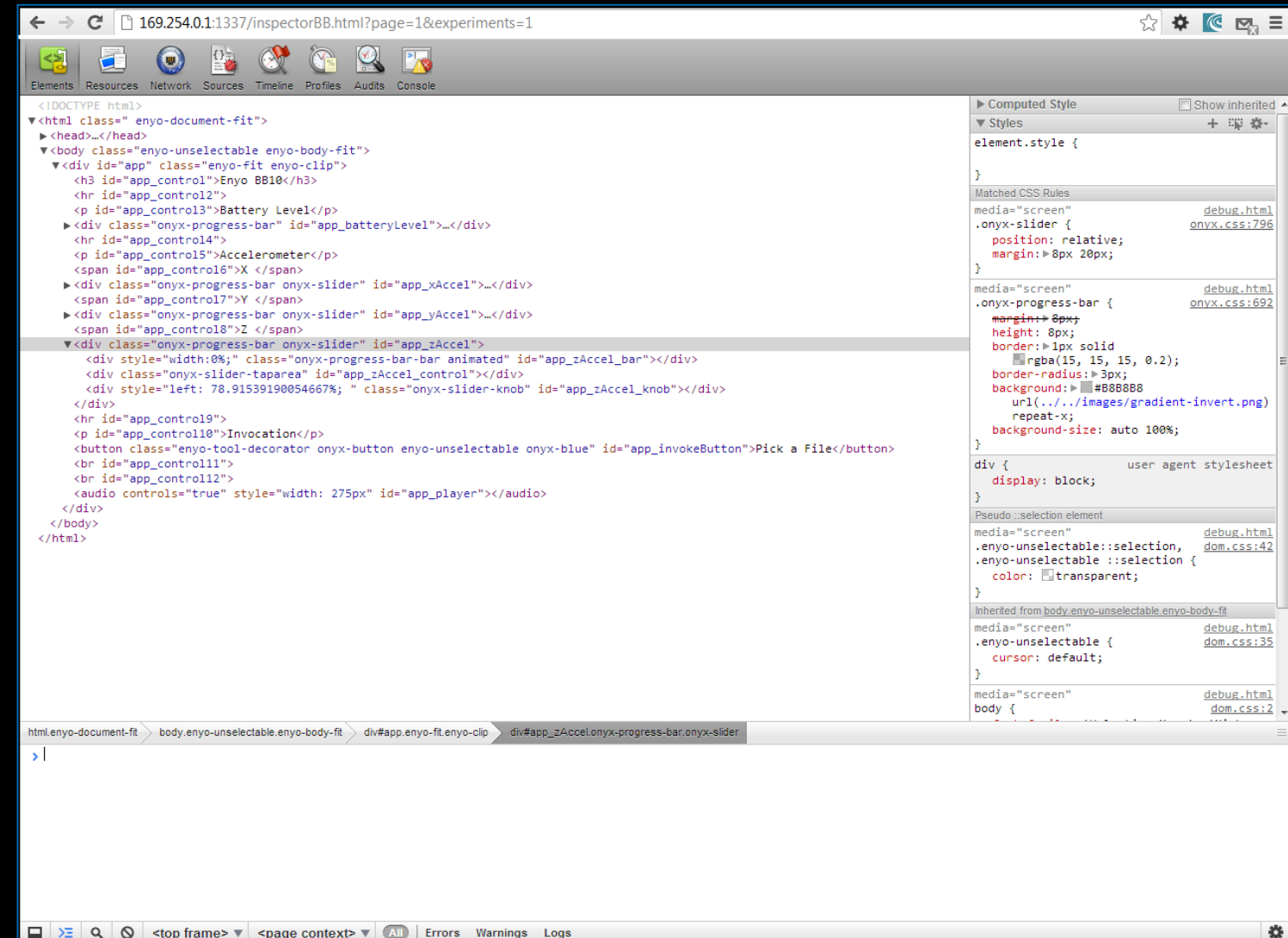
- Chrome Plugin
- Emulate Device Hardware Features
- Package WebWorks Apps
- Rapid Application Prototyping



# Remote WebInspector

- Debug Live on the device
  - USB or WiFi (or Local 😊)
- WebInspector from WebKit
- Breakpoints, Timeline, Sockets, etc

You will wonder how you ever lived without it



# Enyo Sample App

- Let's Build an App with Enyo and WebWorks on BlackBerry 10
  - Start with Enyo Bootplate
  - Use Enyo's Onyx UI
  - Integrate some Device Features
    - Battery
    - Accelerometer
    - Card Invocation

Sample App Video is at:

<https://github.com/timwindsor/EnyoJS-on-BlackBerry/blob/master/Enyo-2.0-BB10-WebWorks/SampleAppVideo.mp4>



## Get Enyo

### Bootplate

The best way to get started with Enyo is to grab [Enyo Bootplate](#). The Bootplate template provides a complete starter project containing the latest release of Enyo core and the most common libraries, and supports source control and cross-platform deployment out of the box.

[Bootplate on GitHub](#)

You can clone Bootplate from GitHub (and initialize its submodules) with the following commands:

```
git clone https://github.com/enyojs/bootplate.git
cd bootplate
git submodule update --init
```

Once you've cloned bootplate, open the folder and load `debug.html` in a browser. Hello to you too, Enyo! When you're ready to dive deeper, head to the [Bootplate documentation](#), or dive into the [Developer Guide](#).

#### Not a fan of git?

We also provide a zip archive of Bootplate from the latest stable release.

[Bootplate zip](#)

### Get from GitHub

More advanced developers who are contributing to Enyo, developing Enyo libraries, or just prefer to work at the bleeding edge may prefer to pull Enyo and its libraries directly from GitHub.

[Enyo on GitHub](#)

Enyo Bootplate is a solid base to start from

Get it from Github or as a Zip

# Onyx UI Elements

```
App.js × config.xml × debug.html × package.js × build.xml ×
1  enyo.kind({
2      name: "App",
3      fit: true,
4      components:[
5          { tag: 'h3', content: "Enyo BB10" },
6          { tag: 'hr' },
7          { tag: 'p', content: 'Battery Level' },
8          { kind: 'onyx.ProgressBar', name: 'batteryLevel', showStripes: false, progress: 100 },|
9          { tag: 'hr' },
10         { tag: 'p', content: 'Accelerometer' },
11         { tag: 'span', content: 'X ' },
12         { kind: 'onyx.Slider', name: 'xAccel', lockBar: false, value: 50 },
13         { tag: 'span', content: 'Y ' },
14         { kind: 'onyx.Slider', name: 'yAccel', lockBar: false, value: 50 },
15         { tag: 'span', content: 'Z ' },
16         { kind: 'onyx.Slider', name: 'zAccel', lockBar: false, value: 50 },
17         { tag: 'hr' },
18         { tag: 'p', content: 'Invocation' },
19         { kind: 'onyx.Button', name: 'invokeButton', content: 'Pick a File', classes: 'onyx-blue', ontap: 'invokeTap' },
20         { tag: 'br' },
21         { tag: 'br' },
22         { tag: 'audio', name: 'player', attributes: { controls: "true", style: "width: 275px" }}
23     ],
```

# Include WebWorks.js

```
1  <!DOCTYPE html>
2  <html>
3  <head>
4      <title>Enyo Sample App</title>
5      <link rel="shortcut icon" href="assets/favicon.ico"/>
6      <!-- -->
7      <meta http-equiv="Content-Type" content="text/html; charset=utf8"/>
8      <meta name="apple-mobile-web-app-capable" content="yes"/>
9      <meta name="viewport" content="width=device-width, initial-scale=1.0, maximum-scale=1.0, user-scalable=no"/>
10     <script src="js/webworks-1.0.2.9.js"></script>
11     <!-- enyo (debug) -->
12     <script src="enyo/enyo.js"></script>
13     <!-- application (debug) -->
14     <script src="source/package.js" type="text/javascript"></script>
15 </head>
16 <body class="enyo-unselectable">
```

```
53
54     window.addEventListener("load", function(e) {
55         document.addEventListener("webworksready", function(e) {
56             BlackBerry.onEvent.addEventListener("buttonupdate", buttonUpdateCallback);
```

# Listening to BatteryStatus

```
17 <script>
18 var a = new App();
19 a.renderInto(document.body);
20
21 function batteryUpdateCallback(info) {
22     a.updateBattery(info.level);
23     a.updateBatteryCharge(info.isPlugged);
24 }
25
26 function formatAccel(raw) {
27     return (raw * 3) + 50;
28 }
29
30 function invokeFilePicker(details) {
31 }
32
33 function invokeForMusic() {
34 }
35
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53
54 window.addEventListener("load", function(e) {
55     document.addEventListener("webworksready", function(e) {
56         blackberry.event.addEventListener("batterystatus", batteryUpdateCallback);
```

```
23
24 updateBattery: function(newValue) {
25     console.log('Update Battery Level: ' + newValue);
26     this.$.batteryLevel.setProgress(newValue);
27 },
28 updateBatteryCharge: function(newValue) {
29     console.log('Update Battery State: ' + newValue);
30     if (newValue === true) {
31         this.$.batteryLevel.setShowStripes(true);
32         this.$.batteryLevel.setAnimateStripes(true);
33     } else {
34         this.$.batteryLevel.setShowStripes(false);
35         this.$.batteryLevel.setAnimateStripes(false);
36     }
37 },
```

# Listening to Accelerometer

```
53
54 window.addEventListener("load", function(e) {
55     document.addEventListener("webworksready", function(e) {
56         blackberry.event.addEventListener("batterystatus", batteryUpdateCallback);
57         window.addEventListener('devicemotion', function(event) {
58             a.updateAccel(
59                 event.accelerationIncludingGravity.x,
60                 event.accelerationIncludingGravity.y,
61                 event.accelerationIncludingGravity.z);
62             }, true);
63         }, false);
64     }, false);
65 </script>
66 </body>
```

```
37     },
38     updateAccel: function(x, y, z) {
39         this.$.xAccel.animateTo(formatAccel(x));
40         this.$.yAccel.animateTo(formatAccel(y));
41         this.$.zAccel.animateTo(formatAccel(z));
42     }
```



# Invoke the FilePicker Card

```
30 function invokeFilePicker(details) {  
31     blackberry.invoke.card.invokeFilePicker(details, function(path){  
32         a.playFile('file://' + path);  
33     },  
34     function(reason){  
35         alert("Cancelled");  
36     },  
37     function(error){  
38         if(error){  
39             alert("Invoke Error: " + error);  
40         }else{  
41             console.log("invokesuccess");  
42         }  
43     }  
44 );  
45 }  
46 function invokeForMusic() {  
47     var details = {  
48         mode: blackberry.invoke.card.FILEPICKER_MODE_PICKER,  
49         type: [blackberry.invoke.card.FILEPICKER_TYPE_MUSIC]  
50     };  
51     invokeFilePicker(details);  
52 }
```

```
43 invokeTap: function(inSender, inEvent) {  
44     invokeForMusic();  
45 },  
46 playFile: function(src) {  
47     this.$.player.setAttribute('src', src);  
48     this.$.player.node.play();  
49 }  
50 });
```

# Don't Forget Config.xml

- Sets App Details for Building
  - Name, Version, ID, Author
  - Set Icon, Splash screen
  - Point at our HTML
  - Include Permissions
  - Include Features

```
1  <?xml version="1.0" encoding="UTF-8"?>
2  <!--
16 -->
17 <widget xmlns="http://www.w3.org/ns/widgets"
18       xmlns:rim="http://www.blackberry.com/ns/widgets"
19       version="1.0.1" id="EnyoBB10Sample" xml:lang="en">
20 |
21   <name>EnyoBB10</name>
22   <description>Enyo Sample App</description>
23   <author rim:copyright="2012" email="twindsor@rim.com" href="
http://www.blackberry.com/developers">Tim Windsor</author>
24
25   <icon src="assets/enyologo.png"/>
26   <rim:splash src="enyo_banner.png"/>
27
28   <content src="debug.html"/>
29
30   <rim:permissions>
31     <rim:permit>access_shared</rim:permit>
32   </rim:permissions>
33
34   <feature id="blackberry.app">
35     <param name="backgroundColor" value="0xff1284b3" />
36   </feature>
37   <feature id="blackberry.system"/>
38   <feature id="blackberry.ui.dialog"/>
39   <feature id="blackberry.invoke"/>
40   <feature id="blackberry.invoke.card"/>
41   <feature id="blackberry.app.orientation">
42     <param name="mode" value="portrait" />
43   </feature>
44
45   <license href="http://www.apache.org/licenses/LICENSE-2.0">
54   </license>
55
56 </widget>
```

# Enyo.js on BlackBerry 10

Thanks for Attending!

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