

Cross Platform Native Development with Appcelerator Titanium

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Mobile Languages

iOS	Objective-C
Android	Java
Mobile web	HTML 5
Blackberry	Java
Windows 8 Mobile	.NET (C#)

Native Button

```
UIButton *theButton = [UIButton buttonWithType: UIButtonTypeRoundedRect];  
[theButton setTitle:@"Click Me!" forState:UIControlStateNormal];
```

```
Button theButton = new Button(this);  
theButton.setText("Click Me!");
```

Abstraction Layers

“...the process of formulating generalized ideas or concepts by extracting common qualities from specific examples...”

Abstraction Advantages

- Quicker Development
- Re-use of existing knowledge/libraries
- Less training/re-training
- Simpler maintenance



Appcelerator

- Open Source - available on github
- Code in JavaScript
- It is not 'like PhoneGap' (not run in a webview)
- It is not a generator or transpiler
- JavaScript to Bridge (Kroll) to Native
- Ti.Next (hyperloop/HAL)

Titanium

Classic

```
var theButton = Ti.UI.createButton({  
    title: 'Click Me!'  
});
```

Alloy

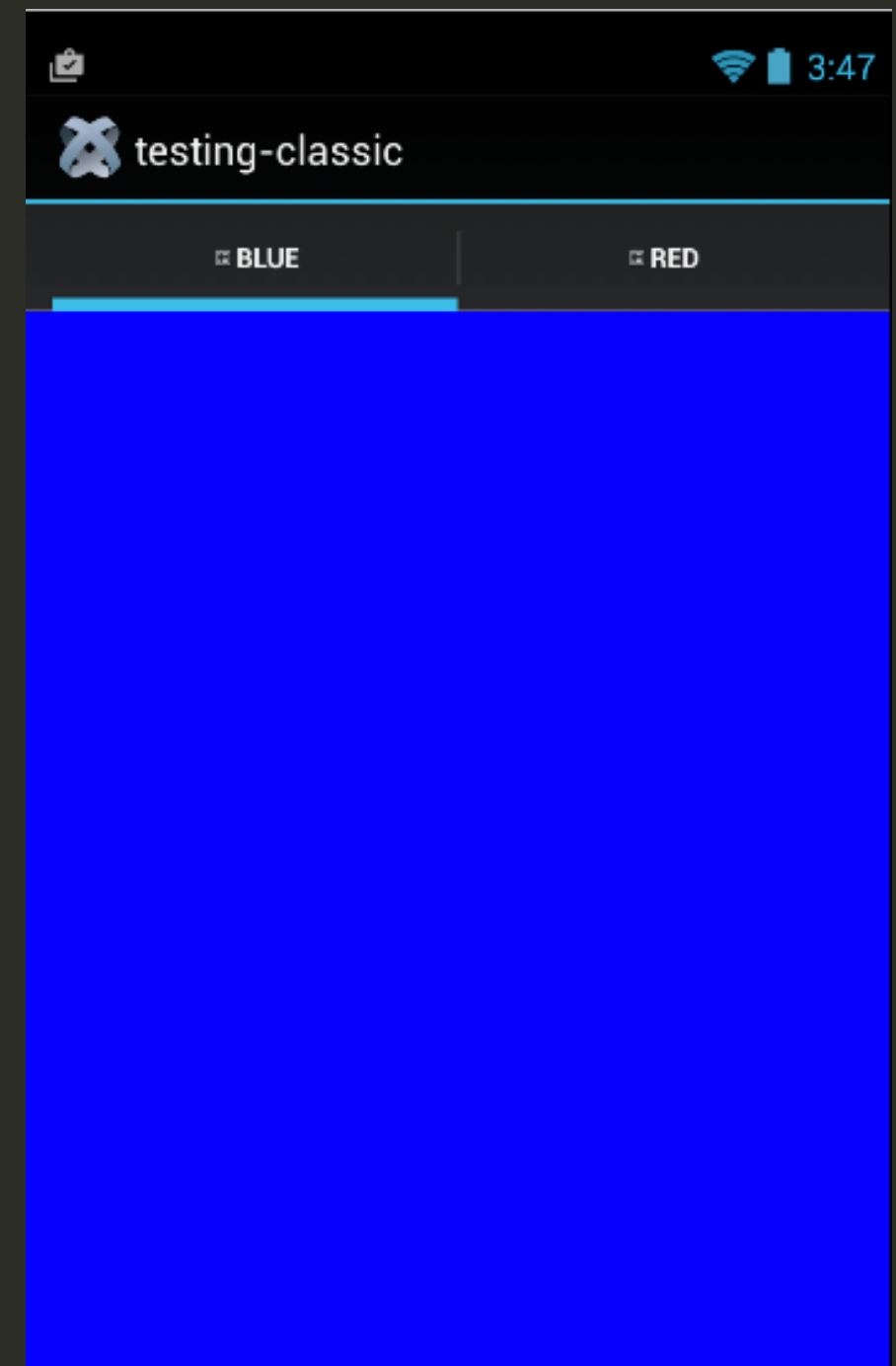
```
<Alloy>  
    <Button>Click Me!</Button>  
</Alloy>
```



```

1  var tabGroup = Titanium.UI.createTabGroup();
2  //
3  // create base UI tab and root window
4  //
5
6  var window1 = Ti.UI.createWindow({
7      backgroundColor: 'blue',
8      title: 'Blue'
9  });
10
11 var tab1 = Titanium.UI.createTab({
12     icon: 'images/KS_nav_ui.png',
13     title: 'Blue',
14     window: window1
15 });
16
17 var window2 = Ti.UI.createWindow({
18     backgroundColor: 'red',
19     title: 'Red'
20 });
21
22 var tab2 = Titanium.UI.createTab({
23     icon: 'images/KS_nav_ui.png',
24     title: 'Red',
25     window: window2
26 });
27
28 tabGroup.addTab(tab1);
29 tabGroup.addTab(tab2);
30
31 // open tab group
32 tabGroup.open();

```



```
index.js
1 $.index.open();

index.xml
1 <Alloy>
2   <TabGroup>
3     <Tab id="tab1">
4       <Window id="window1"></Window>
5     </Tab>
6     <Tab id="tab2">
7       <Window id="window2"></Window>
8     </Tab>
9   </TabGroup>
10 </Alloy>

index.tss
1 "#tab1":{
2   title: 'Blue',
3   icon: 'images/KS_nav_ui.png'
4 }
5
6 "#tab2":{
7   title: 'Red',
8   icon: 'images/KS_nav_ui.png'
9 }
10
11 "#window1":{
12   backgroundColor: '#0000ff',
13   title: 'Blue'
14 }
15
16 "#window2":{
17   backgroundColor: 'red',
18   title: 'Red'
19 }
```

Advantages

- Write Once, Edit
- Deploy all over
- Native Interface Controls
- Reduce Maintenance
- Simplify deployment to new platforms
- Utilize existing JavaScript skills

Disadvantages

- Modify often
- New feature delays
- Bug fix delays

Code Reuse?

- 100% of non-UI code is reusable
- 50% of UI code (classic) is reusable
- 80-85% of UI code (alloy) is reusable
- The better the coder, the more reuse (experience and patterns)

Installing Titanium

- Visit appcelerator.com
- Create an Appcelerator Account
- Download Titanium Studio
- Use the Guide for reference
http://bit.ly/Setup_Titanium_Studio
- Studio will attempt to walk you through installing the prerequisites (node, Java, xCode, Android Tooling)

Installation for the Rebellious

- Install node (v.10.x recommended)
- Install xCode (required for iOS on OSX)
- Install Android Tooling
- Set path for android tooling
- (be a true rebel, install Genymotion and throw Google Apps on a VM)
- Ensure you have the correct jdk installed (note: 6, 32 bit on windows)
- [sudo] npm -g install titanium
- [sudo] npm -g install alloy
- titanium setup (quick setup)
- titanium sdk install latest
- [sudo] npm install -g tishadow (tishadow.yydigital.com, great utility)

Movies

<https://github.com/appcelerator/movies>

Additional Resources

- Docs - Official API Documentation, Guides
(<http://docs.appcelerator.com>)
- Q&A - Community Forum
(<http://developer.appcelerator.com/questions>)
- gitt.io - Search github for Modules/Widgets
- Twitter Short List
(<http://bit.ly/Titanium-Short-List>)

Question & Answers