

iOS 7

What You Need to Know



TRIFORK.
...think software

- GOTO Conference
- GOTO night
- Training

Twitter



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Århus

Modules

@import

Demo!

Modules

- Easier to use
- No namespace pollution
- You get it for free
- Performance (build time and indexing)

Modules

- Caveats
 - Requires iOS7 / OS X 10.9 SDK
 - Not available for user frameworks

Modules



404 Advances in Objective-C

Unit Testing in Xcode 5

...finally being taken seriously

Demo!

- SenTest- and XCTest can co-exist
- New in Xcode 5
 - Migration tool
 - Test failure break-point
 - Test assistant categories
 - Test again command

More on Unit Testing



409 Testing in Xcode 5

Test Bots

No Demo!

:-)

Bots

- Test on simulator and physical devices
- Deep integration with Xcode
- Good terminal support

More on Bots and CI



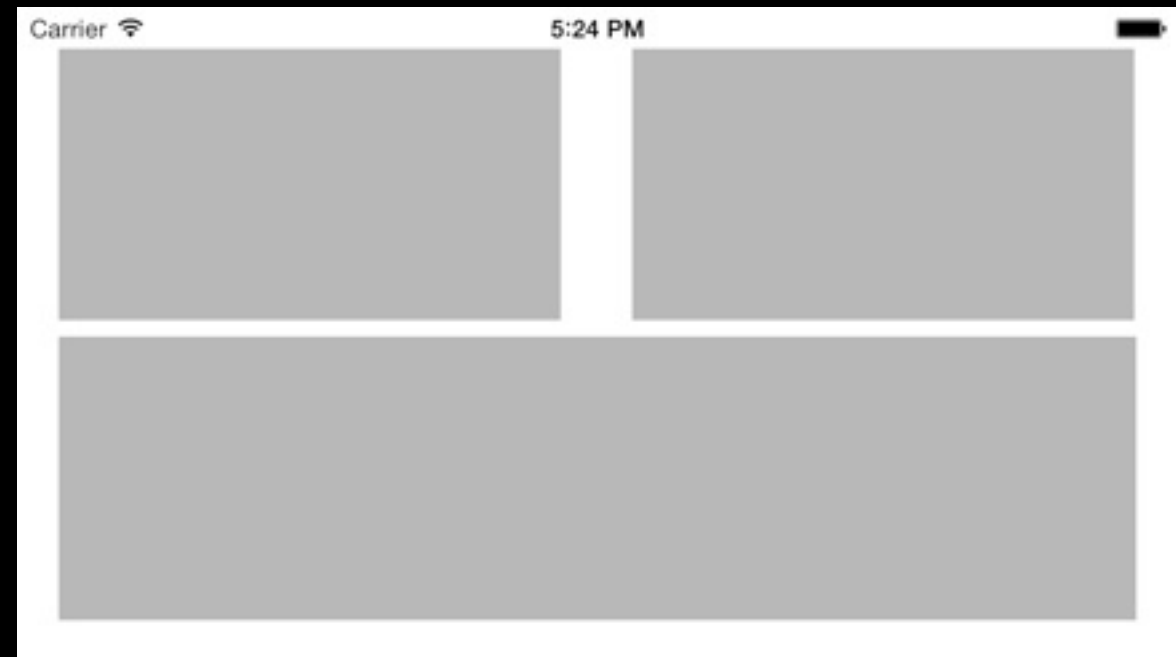
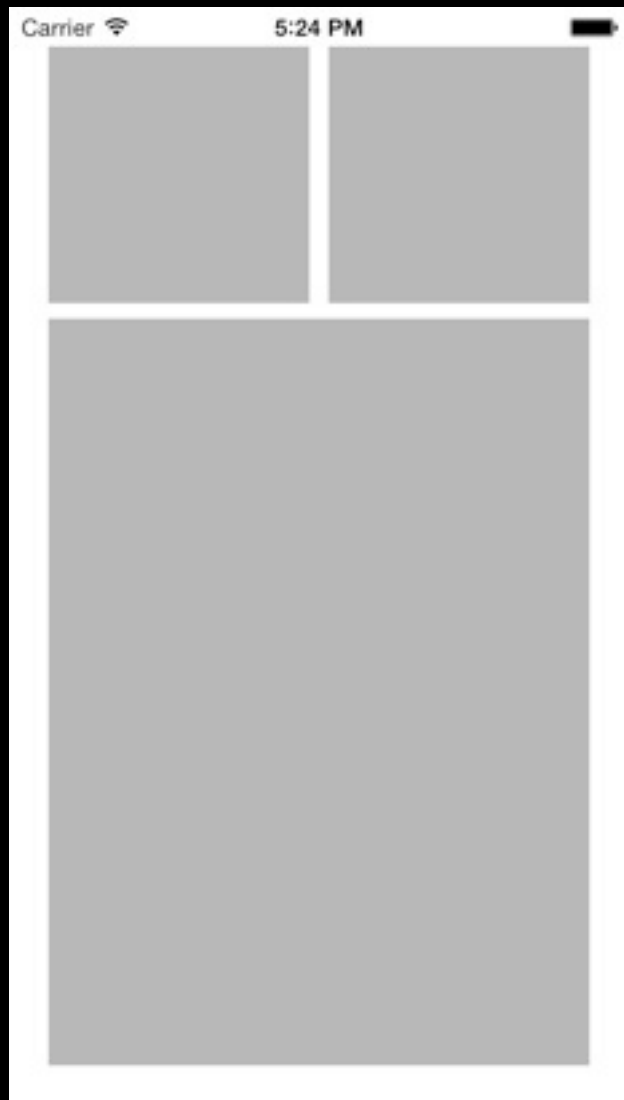
412 Continuous Integration with Xcode 5

Auto Layout

They fixed it !

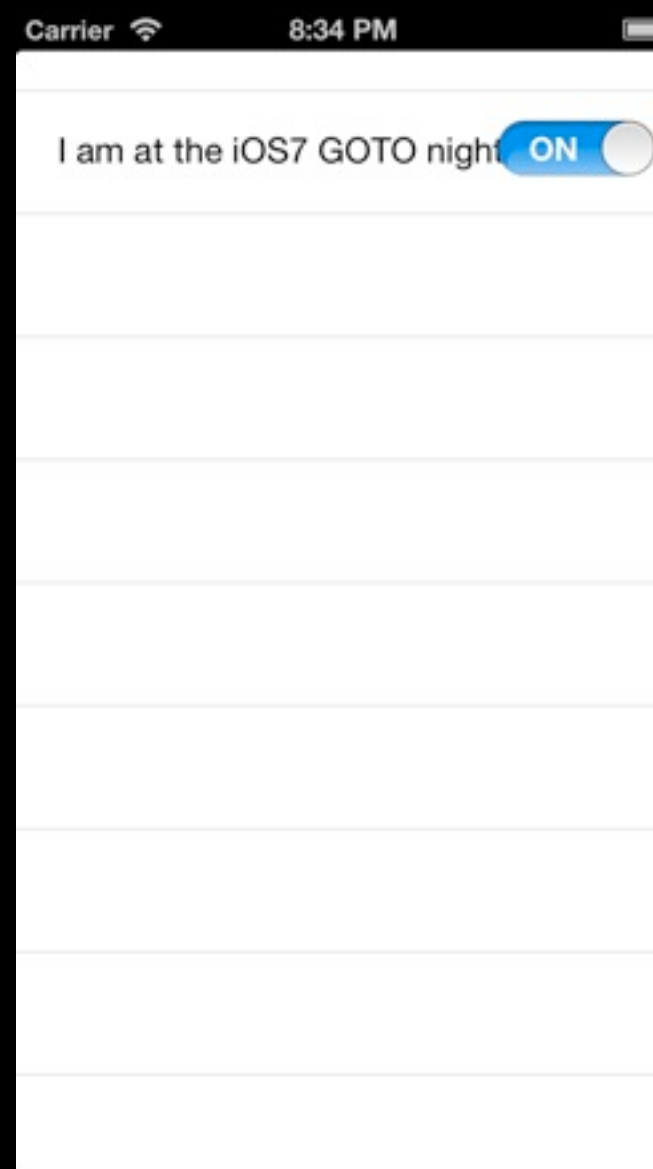
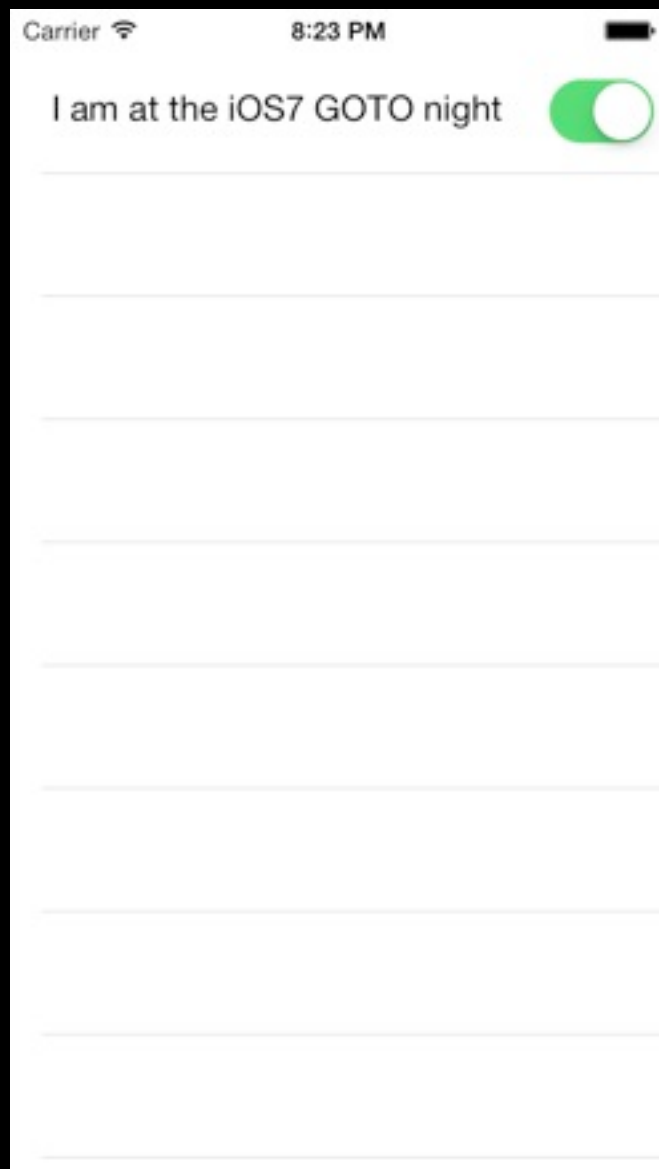
Springs and Struts

why not?



Springs and Struts

why not?





Auto Layout in iOS6 IB

Demo!



406 Taking Control of Autolayout in Xcode 5

Xcode 5

Other enhancements

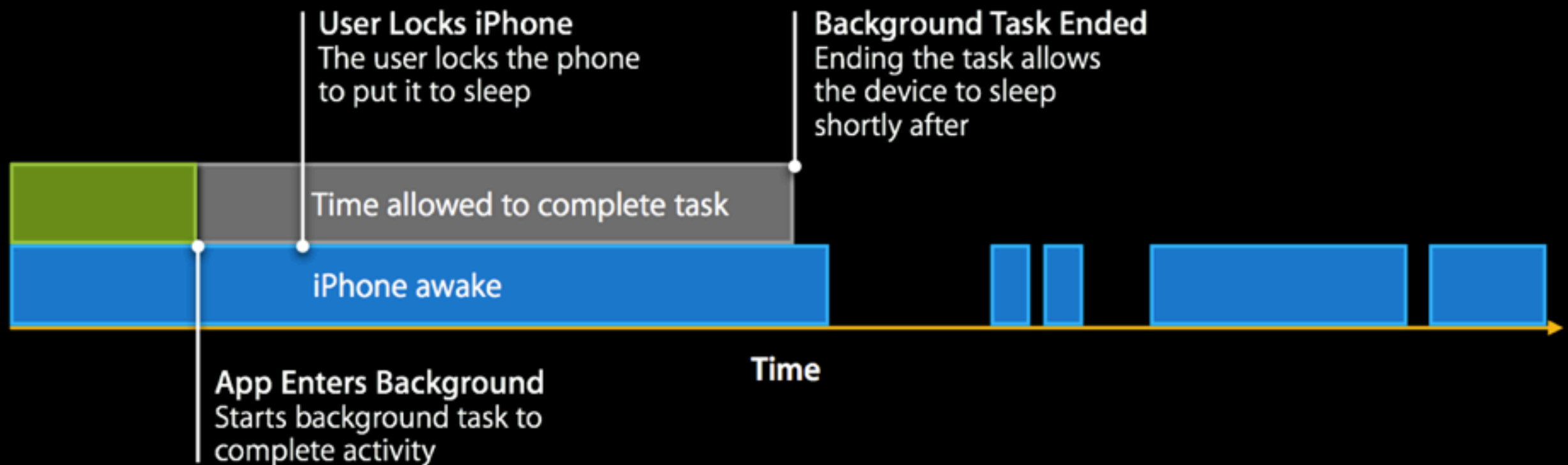
- Capabilities
- Images.xcassets

Sandwich

Multitasking

Background Task Changes

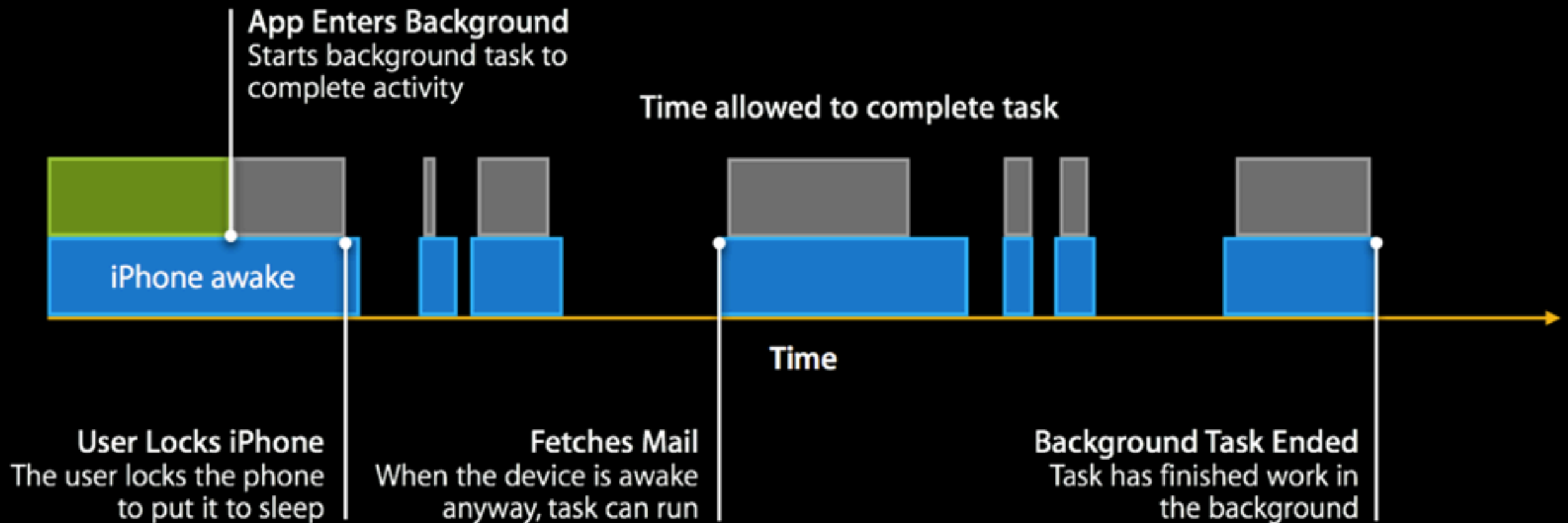
In iOS 6



[WWDC 2013: 204 Whats new With Multitasking]

Background Task Changes

In iOS 7



[WWDC 2013: 204 Whats new With Multitasking]

New multitasking APIs

- Background Fetch
- Remote Notifications
- Background Transfer Service

Background Fetch

- Update your tweets or Facebook posts while app is backgrounded

Demo!

Background Fetch

- Update you social media data
- But what else?
 - Simulate remote notifications
 - What are the constraints ?

Background Fetch

- System scheduled (coalesced)
- Adapts from usage pattern

Remote Notifications

Motivation

- Update the App Content before the user opens the App.

Remote Notifications

1. Set the Background mode
2. Implement the AppDelegate callback

Remote Notifications

```
aps {  
  content-available: 1  
  alert: {...}  
}
```



Omit for silent notification

Background Transfer Service

Motivation

- Upload/download large files
- Continue even after app exists
- Enqueue from background and foreground

Demo!

Use case example

1. New content available
2. Server sends silent push notification
3. App starts background transfer service
4. Transfer completes and App presents a local notification



204 Whats new With Multitasking

JavaScript Core

```
JSVirtualMachine *vm = [JSVirtualMachine new]
JSContext *context = [[JSContext alloc] initWithVirtualMachine:vm];
context[@"a"] = @5;
```

```
JSValue *aValue = context[@"a"];
double a = [aValue toDouble];
NSLog(@"%.0f", a); // => 5
```

```
[context evaluateScript:@"a = 10"];
JSValue *newAValue = context[@"a"];
NSLog(@"%.0f", [newAValue toDouble]); // => 10
```

JavaScript Core

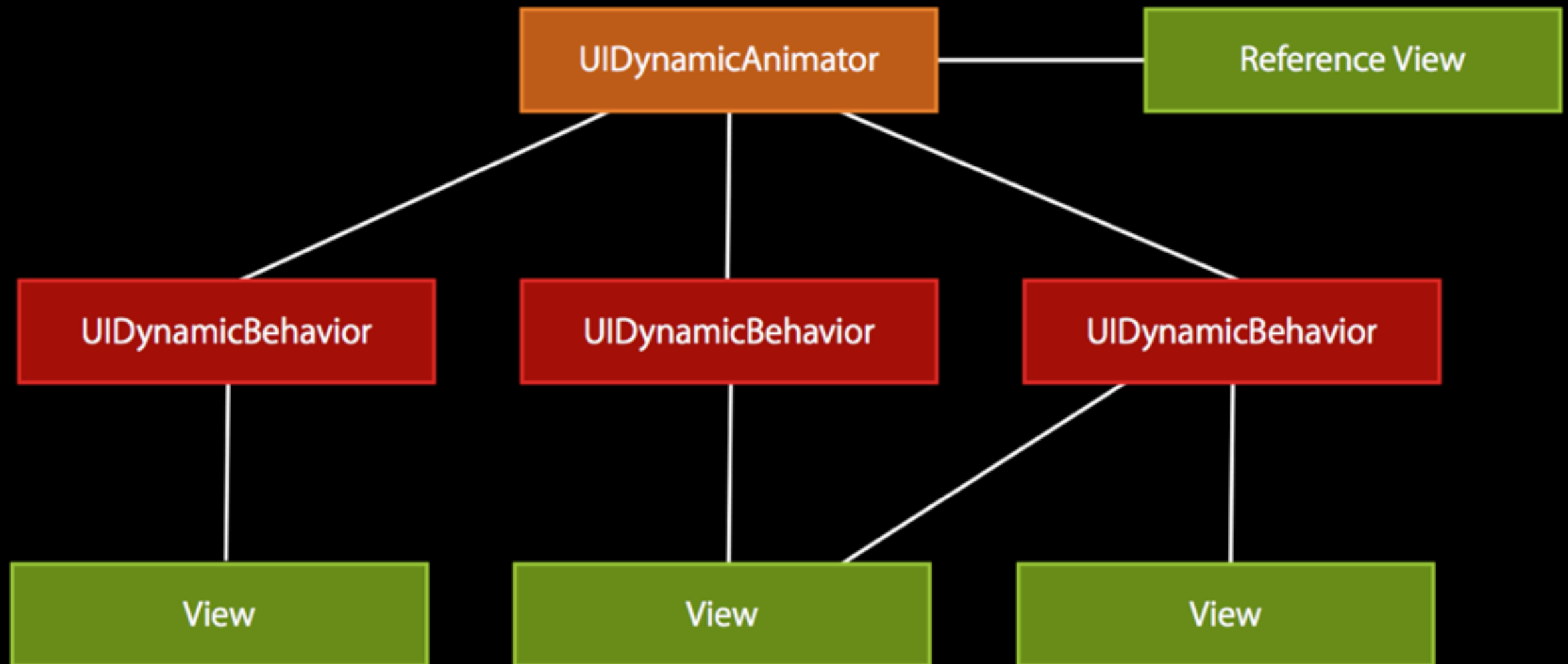
Object Bridging

```
Person *person = [[Person alloc] init];  
person.name = @"Søren";  
context[@"person"] = person;
```

- Create a PersonExports <JSExports> protocol
- @property => JavaScript getter/setter
- instance method => JavaScript function

UIKit Dynamics

Architecture



[WWDC 2013: 206 Getting Started With UIKit Dynamics]

```
animator = [[UIDynamicAnimator alloc] initWithReferenceView:referenceView];  
[animator addBehavior:...];  
[animator addBehavior:...];
```


Predefined Behaviors

- Gravity
- Collision
- Attachments (and Springs)
- Snap
- Forces (Push)
- Item Properties

Demo!



206 Getting Started with UIKit Dynamics

Sprite Kit

Declarative

```
SKSpriteNode *sprite = [SKSpriteNode spriteNodeWithImageNamed:@"hero.png"];  
[sprite runAction:[SKAction fadeOutWithDuration:1.0]];
```

Composable Actions

```
[myNode runAction:[SKAction sequence:@[action1, action2, action3]]]
```

Cool

```
[SKVideoNode videoNodeWithVideoFileNamed:@"video.mp4"];
```

Integrated physics

```
SKSpriteNode *sprite = [SKSpriteNode spriteNodeWithImageNamed:@"ball.png"];  
sprite.physicsBody = [SKPhysicsBody bodyWithCircleOfRadius:sprite.size.width * 0.5];
```

```
moveByX:(CGFloat)deltaX y:(CGFloat)deltaY duration:(NSTimeInterval)sec;
moveTo:(CGPoint)location duration:(NSTimeInterval)sec;
moveToX:(CGFloat)x duration:(NSTimeInterval)sec;
moveToY:(CGFloat)y duration:(NSTimeInterval)sec;
rotateByAngle:(CGFloat)radians duration:(NSTimeInterval)sec;
rotateToAngle:(CGFloat)radians duration:(NSTimeInterval)sec;
resizeByWidth:(CGFloat)width height:(CGFloat)height duration:(NSTimeInterval)sec;
resizeToWidth:(CGFloat)width height:(CGFloat)height duration:(NSTimeInterval)sec;
resizeToWidth:(CGFloat)width duration:(NSTimeInterval)duration;
resizeToHeight:(CGFloat)height duration:(NSTimeInterval)duration;
scaleBy:(CGFloat)scale duration:(NSTimeInterval)sec;
scaleXBy:(CGFloat)xScale y:(CGFloat)yScale duration:(NSTimeInterval)sec;
scaleTo:(CGFloat)scale duration:(NSTimeInterval)sec;
scaleXTo:(CGFloat)xScale y:(CGFloat)yScale duration:(NSTimeInterval)sec;
scaleXTo:(CGFloat)scale duration:(NSTimeInterval)sec;
scaleYTo:(CGFloat)scale duration:(NSTimeInterval)sec;
sequence:(NSArray *)actions;
group:(NSArray *)actions;
repeatAction:(SKAction *)action count:(NSUInteger)count;
repeatActionForever:(SKAction *)action;
fadeInWithDuration:(NSTimeInterval)sec;
fadeOutWithDuration:(NSTimeInterval)sec;
fadeAlphaBy:(CGFloat)factor duration:(NSTimeInterval)sec;
fadeAlphaTo:(CGFloat)alpha duration:(NSTimeInterval)sec;
setTexture:(SKTexture *)texture;
animateWithTextures:(NSArray *)textures timePerFrame:(NSTimeInterval)sec;
```



502 Introduction to Sprite Kit

...and the rest

Other API Goodies

- Add attachments to mail (Message UI Framework)
- Base64Encode NSData
- [NSArray firstObject]
- Barcode Scanner (AVFoundation)
- AVSpeechSynthesizer
- MKDistanceFormatter
- [UIView snapshotView...]

NSURLComponents and NSCharacterSet (NSURLUtilities)

```
NSURLComponents *components =  
    [NSURLComponents componentsWithString:@"http://  
nshipster.com"];  
components.path = @"/iOS7";  
components.query = @"foo=bar"
```

```
//http://nshipster.com/iOS7?foo=bar
```

NSURLComponents and NSCharacterSet (NSURLUtilities)

NSCharacterSet

- + (id)URLUserAllowedCharacterSet
- + (id)URLPasswordAllowedCharacterSet
- + (id)URLHostAllowedCharacterSet
- + (id)URLPathAllowedCharacterSet
- + (id)URLQueryAllowedCharacterSet
- + (id)URLFragmentAllowedCharacterSet



I'm sorry....

UIKit

Custom View
Controller Transition

Multipeer
Connectivity

App Transfer

Core Bluetooth