## Chameleon

#### Getting your iOS app onto the Mac



# What is it?

- UlKit for Mac OS X
- Implements same API as iOS
- Written by Sean Heber @BigZaphod
- I'm the first guinea pig @chockenberry

# Why did we do it?

- Twitterrific for Mac
- About 50K lines of iOS code to rewrite
- And new code to maintain in parallel
- Started doing that...
- Then Sean got lazy... sort of.

# Where are we now?

- Nine months later
- 90% of our code base is platform agnostic
- Simultaneous releases for Mac and iOS
- Ul consistency across products
- 2x revenue from same code

# How can you use it?

http://chameleonproject.org/
Source code available on github
API coverage about 60%
No documentation
Buy an expensive T-shirt

### Documentation

This talk is the starting point
Thanks to @VTM\_iPhone for video
Not going to cover internals
Talk about things we learned
Porting guide for Mac

# Make it Mac!

#### Twitterrific Timeline Tweet Edit Window Help

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# Where is UlKit?

#### Twitterrific Timeline Tweet Edit Window Help

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# Refactoring

It has to happen
Multiple windows
Menubar
Application delegates differ
Section 6.4 – "Apple sets a high bar"

# "Epic refactor is epic"

- 100+ files changed
- I,100 word commit message for rev 3896
- Implemented application controller
- Actions & state managed by controller
- Controller is subclassed per platform

## TwitterrificController

TwitterrificController base class
TwitterrificController\_iOS

TwitterrificController\_iPhone

TwitterrificController\_iPad

TwitterrificController\_Mac

# Document Window

Document Window Controller Twitterrific Controller (Mac)

UIKitView : NSView

UlViewController

Timeline

# **Application Delegate**

**Application Delegate** 

Twitterrific Controller (iOS)

**UIViewController** 

Timeline

# UlKitView

 Every UIKitView has a UIScreen I: I relationship with view and screen UlWindow accessor creates window Matches screen bounds • Or do it yourself: myUIWindow.screen = myUIKitView.UIScreen;

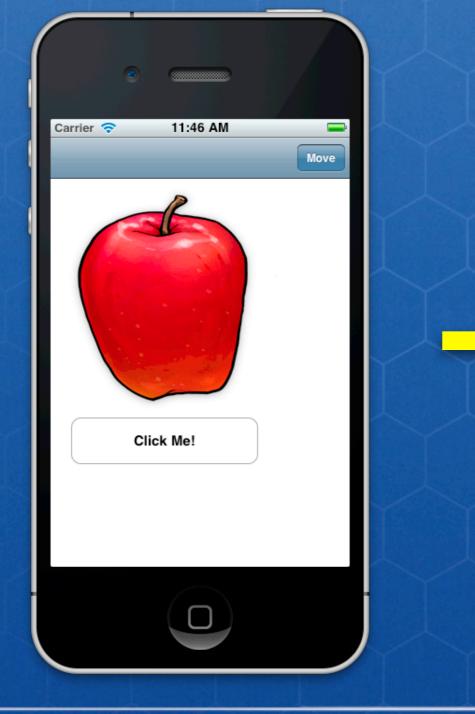
# UIKitView

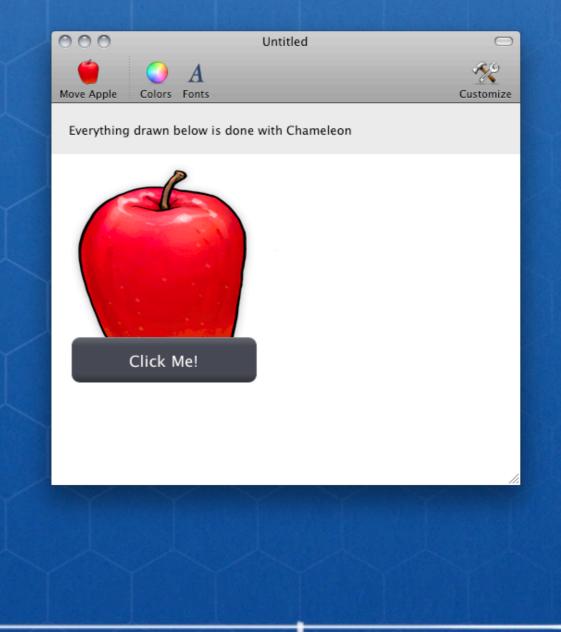
- (void)setViewController:(UIViewController \*)newViewController
  - if (newViewController != viewController) {
     [viewController.view removeFromSuperview];

[viewController release]; viewController = [newViewController retain];

// unlike iOS, bounds can change often and radically
viewController.view.autoresizingMask =
 UIViewAutoresizingFlexibleWidth |
 UIViewAutoresizingFlexibleHeight;
viewController.view.frame = self.UIWindow.bounds;
[self.UIWindow addSubview:viewController.view];
// .. just like in iOS application delegate

# Demo





PRODUCT YOUR APP

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## Deficiencies

Partial implementation (table view editing)
Missing classes (switch and tab view)
Nib loading: use -loadView

## Deficiencies

- Accessibility
- Multi-touch and gesture recognizers
- WebView on 10.6 and Core Animation
- Subpixel anti-aliasing possible, but hard



#### http://chameleonproject.org/

### http://files.iconfactory.net/craig/MultiApple.zip

### Buy a T-shirt before April 20th!

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