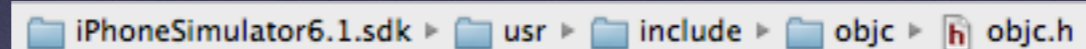# ObjectiveC:
Fully Flexible

-Andrew C Stone

Topics

- What can you do in ObjectiveC?

- Learn about un-exposed API via class-dump

- Categories and poseAs:

- swizzling methods

- Submitting apps that use un-exposed API

Meet ObjectiveC

- It's just c with syntactic sugar

- Features a very powerful runtime

  iPhoneSimulator6.1.sdk ▸ usr ▸ include ▸ objc ▸ objc.h

- Posing, Forwarding, Categories

class-dump, bff

- Introspection allows us to see inside all ObjC

- http://stevenygard.com/projects/class-dump/

- Demo: class-dump /Applications/iPhoneSimulator6.1.sdk/System/Library/Frameworks/MessageUI.framework/MessageUI > /tmp/message

- class-dump /Applications/Xcode.app/Contents/Developer/Platforms/iPhoneOS.platform/Developer/SDKs/iPhoneOS7.1.sdk/System/Library/Frameworks/UIKit.framework/UIKit > ~/uikit-dump

Add Functionality

- Categories add functionality to classes

- @interface NSString(myNamedCategory)

- @implementation NSString(myNamedCategory)

Injecting your code

- poseAs: the ultimate dangerous tool (deprecated 10.5*)

- A subclass can call this first to receive subsequent calls:

- [[MyColorPicker class] poseAs:[NSColorPicker class]];

- id aColorPicker = [[NSColorPicker alloc] init];

- NSLog(@"picker is '%@' class",NSStringFromClass(aColorPicker));
  -> "picker is 'MyColorPicker' class"

- class_poseAs([MyColorPicker class],[NSColorPicker class]);

- objc_setClass() will totally exchange a class

Swizzle Sticks

- Runtime swapping of a method with another

- When you need to get original implementation behavior AND add your own extra behavior when you can't subclass for some reason

- Demo Code: http://stackoverflow.com/questions/5371601/how-do-i-implement-method-swizzling

Going Down Below

- From class-dump, we see many _methods

- You cannot use private API, exp -(id)_secretSauce

- You can use the runtime though:

- id sauce = [object performSelector:NSSelectorFromString([NSString stringWithFormat:@"%C%@%@", '_',@"secret",@"Sauce"])];

For More Info

- http://stackoverflow.com/questions/211616/
hidden-features-of-objective-c