Xcode and Storyboard

March 10, ‘16

Reference of the Swift language

Learn the Essentials of Swift

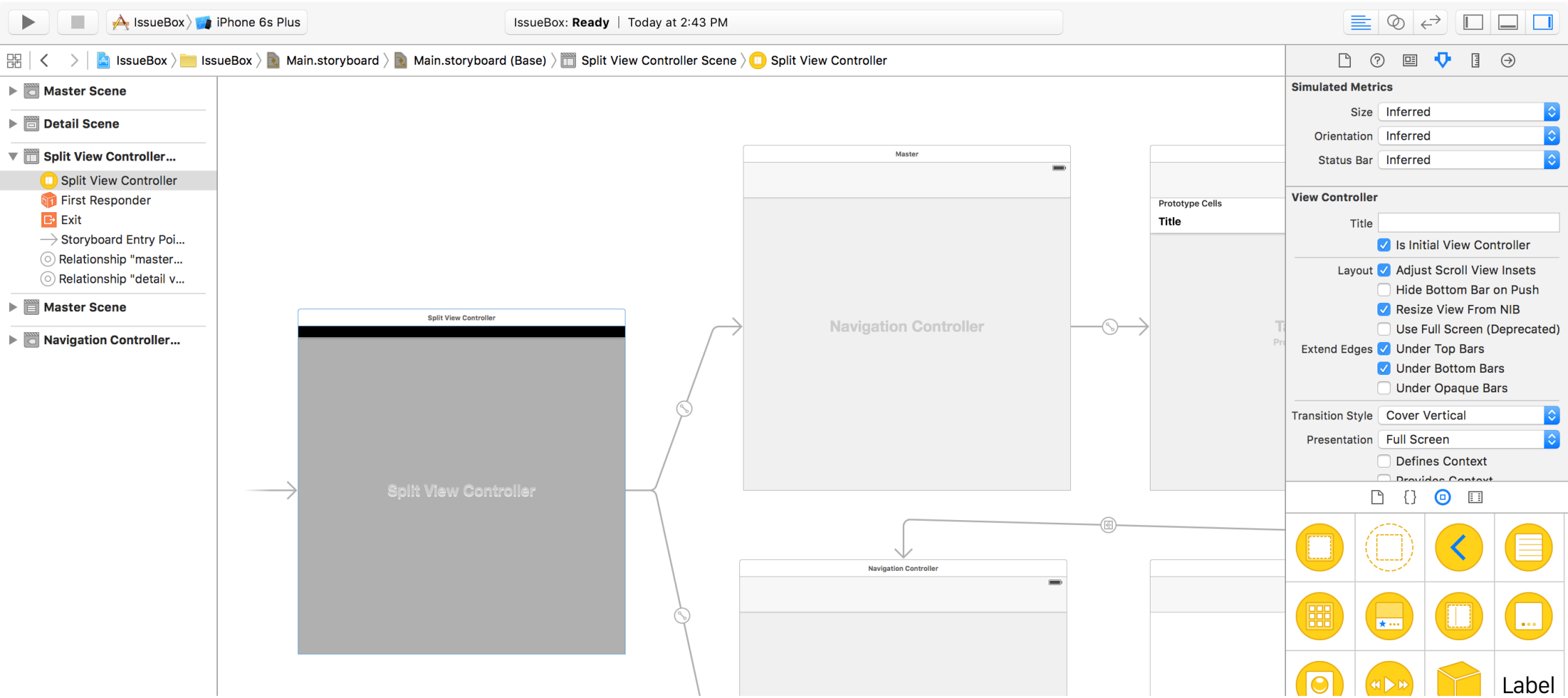
https://developer.apple.com/library/ios/referencelibrary/GettingStarted/DevelopiOSAppsSwift/Lesson1.html#//apple_ref/doc/uid/TP40015214-CH3-SW1

The Swift Programming Language

https://developer.apple.com/library/ios/documentation/Swift/Conceptual/Swift_Programming_Language/index.html#//apple_ref/doc/uid/TP40014097-CH3-ID0

Xcode and Storyboard

Storyboard


IssueBox 〉 iPhone 6s Plus
IssueBox: Ready | Today at 2:43 PM
IssueBox 〉 IssueBox 〉 Main.storyboard 〉 Main.storyboard (Base) 〉 Split View Controller Scene 〉 Split View Controller
Master Scene
Detail Scene
Split View Controller...
Split View Controller
First Responder
Exit
Storyboard Entry Poi...
Relationship "master...
Relationship "detail v...
Master Scene
Navigation Controller...
Split View Controller
Split View Controller
Master
Navigation Controller
Prototype Cells
Title
Navigation Controller
Simulated Metrics
Size
Inferred
Orientation
Inferred
Status Bar
Inferred
View Controller
Title
Is Initial View Controller
Layout
Adjust Scroll View Insets
Hide Bottom Bar on Push
Resize View From NIB
Use Full Screen (Deprecated)
Extend Edges
Under Top Bars
Under Bottom Bars
Under Opaque Bars
Transition Style
Cover Vertical
Presentation
Full Screen
Defines Context
Label

Storyboard

A visual representation of the app's UI, showing screens of content (as scenes) and the transitions between them.

Connections are the relationships between each scenes and its corresponding source code file (*usually a view controller class*).

Segues are the relationships between different scenes.
The detail of segues would be mentioned in future classes.

Storyboard Connections

Actions are connections which represents methods to be called on the view controller when the specified *UI events* is triggered.
Such methods are annotated with `@IBAction` keyword.

Outlets are connections which are properties of the view controller which reference to *UI elements*.
Such properties are annotated with `@IBOutlet` keyword.

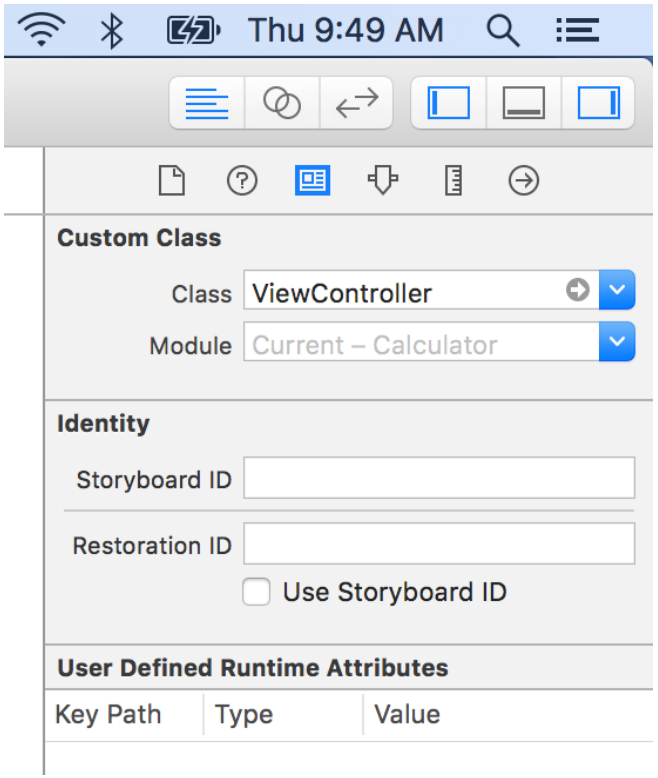
The prefix pattern, *like the "IB" of IBOutlet*, is used as namespace in Objective-C.
IB means "Interface Builder" which is the predecessor of Storyboard.

Class Loading

Use Identity Inspector to specify custom class for elements.

The app would use the class you assigned to instantiate that elements.

And hence you code would be executed.

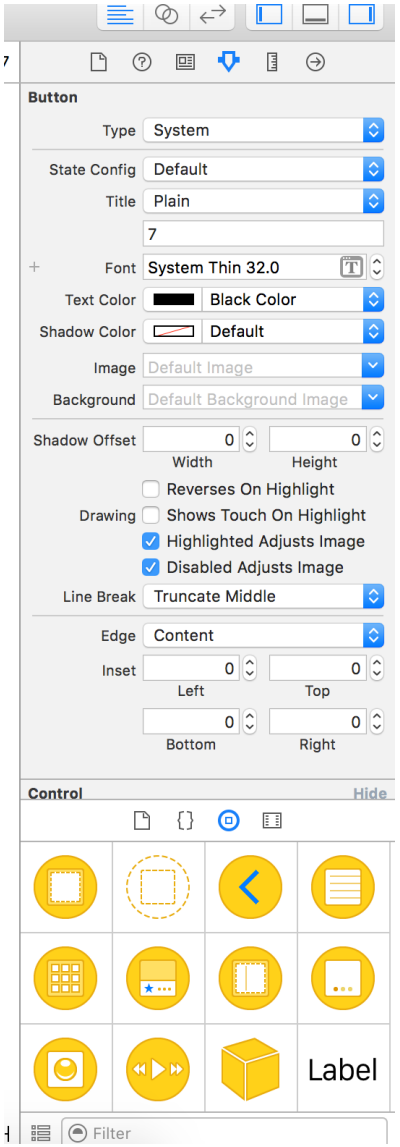


Storyboard > Identity Inspector

Attributes Editing

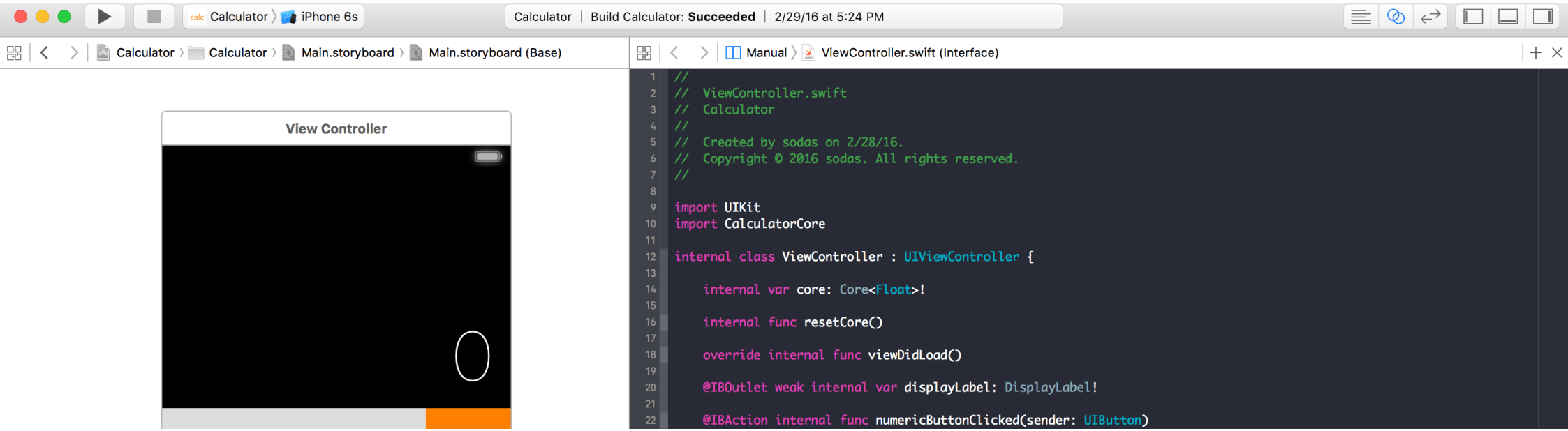
Use Attribute Inspector to custom the appearance and behavior of an element.

Use Object Library to drag a new element into the storyboard.



Storyboard > Attributes Inspector & Object Library

Create connections - I

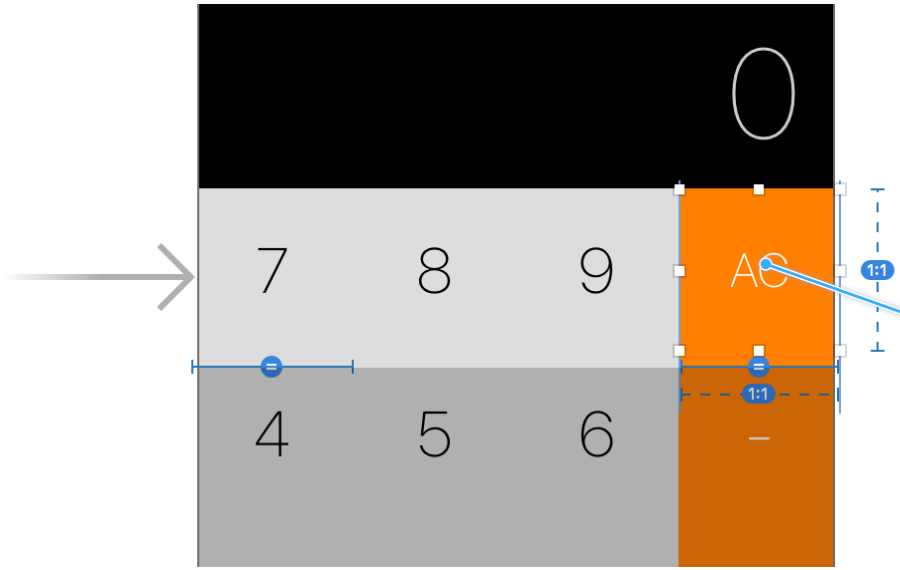


Use Assistant Editor to see Storyboard and related source code.

Or even two different source code file. Switch by the jump bar.

Storyboard > Connections > Assistant Editor

Create connections - II



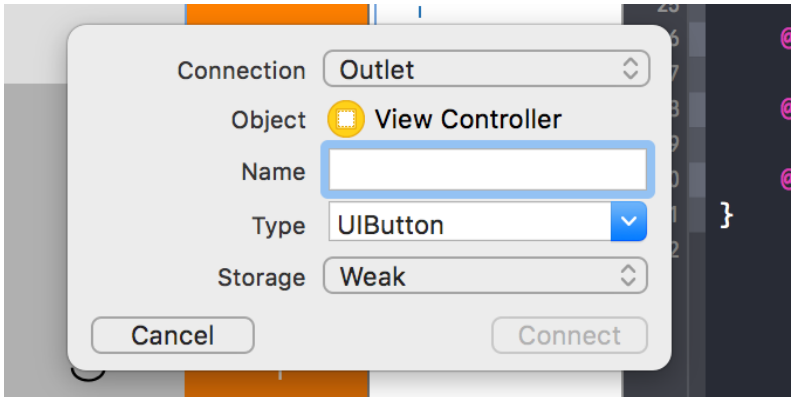

```
16    internal func resetCore()
17
18    override internal func viewDidLoad()
19
20    @IBOutlet weak internal var displayLabel: DisplayLabel!
21
22    @IBAction internal func numericButtonClicked(sender: UIButton)
23
24    @IBAction internal func negativeButtonClicked(sender: UIButton)
25
26    @IBAction internal func operatorButtonClicked(sender: UIButton)
27
28    @IBAction internal func calculateButtonClicked(sender: UIButton)
29
30    @IBAction internal func
31  }
32
```

Insert Outlet, Action, or Outlet Collection

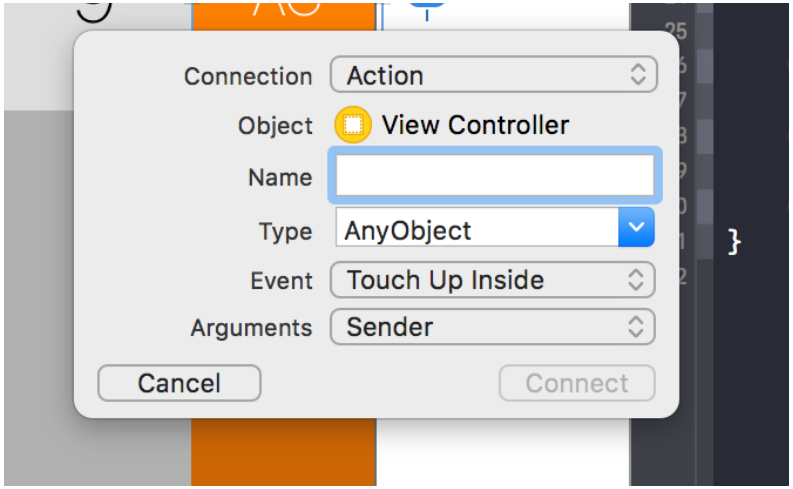
Use “control+drag” to create connections between Storyboard and Swift source code

Storyboard > Connections > Drag connections

Create connections - III



Outlet



Action

Storyboard > Connections > Outlet & Action

References of using Storyboard

Connect the UI to Code

https://developer.apple.com/library/ios/referencelibrary/GettingStarted/DevelopiOSAppsSwift/Lesson3.html#//apple_ref/doc/uid/TP40015214-CH22-SW1

How To Prototype In Xcode Using Storyboard

http://blog.mengto.com/prototype-xcode-storyboard/

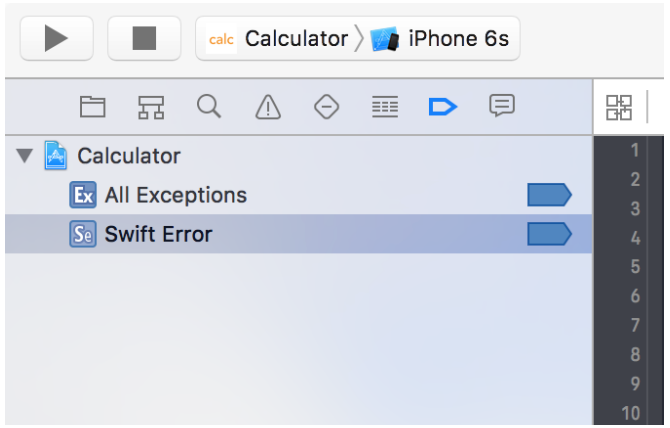
Debug hints

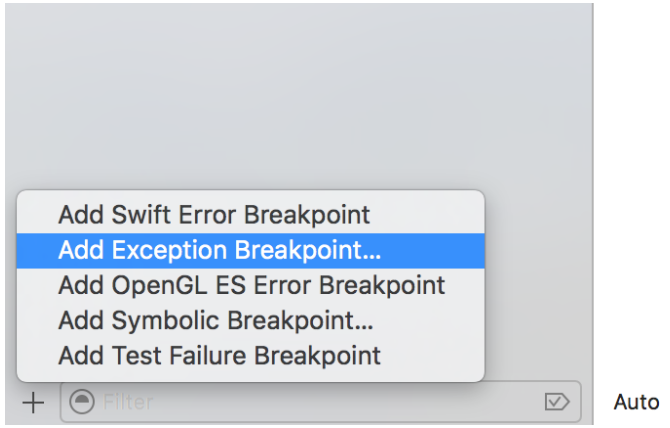
Debug hints - Add breakpoints

Switch to “Breakpoint Navigator”

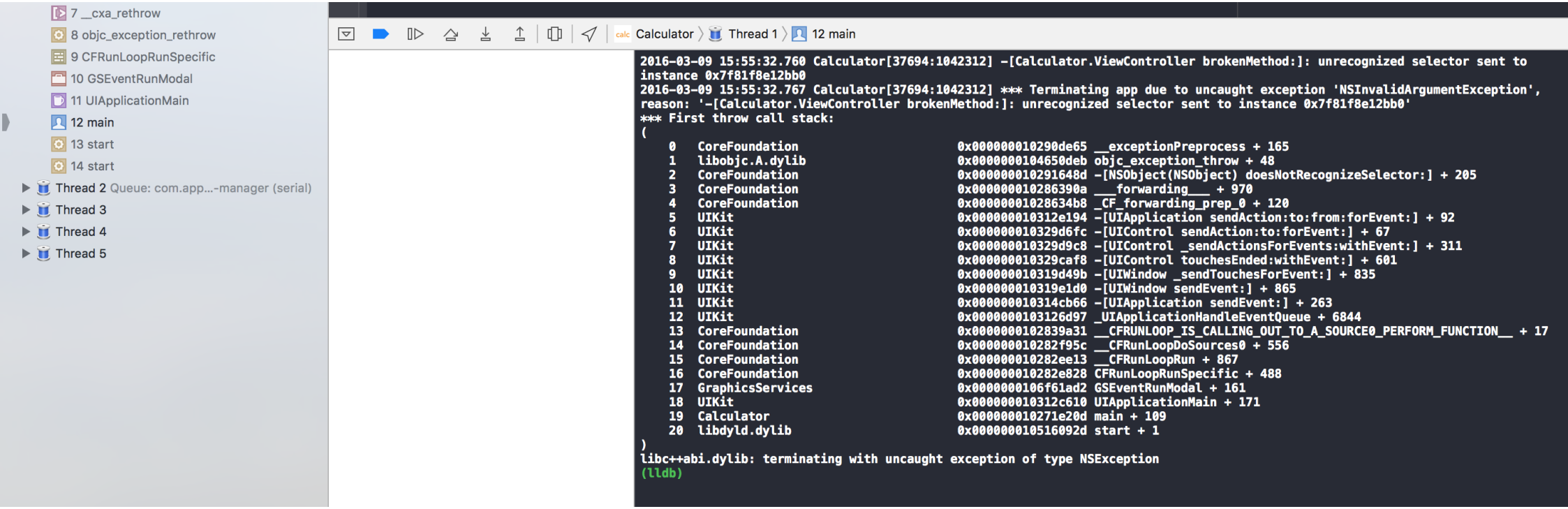
Add both “Swift Error Breakpoint” and “Exception Breakpoint”

The later one captures exceptions from Objective-C and C++.

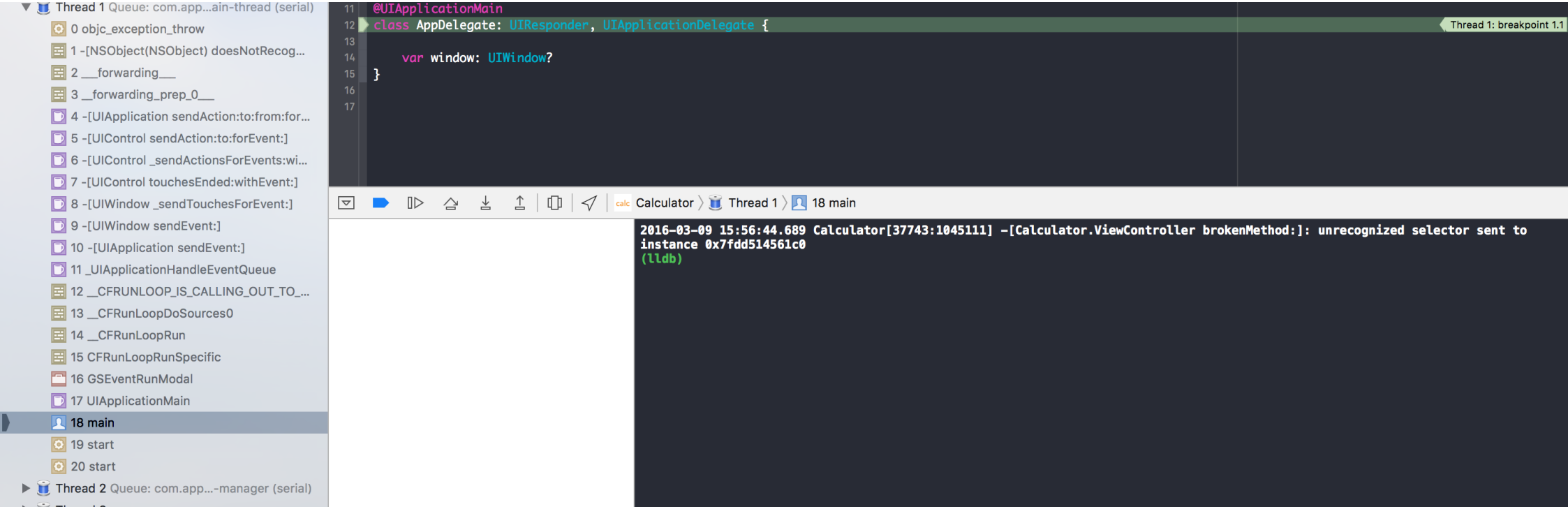




Debug hints - Unknown actions



Debug hints - Unknown actions



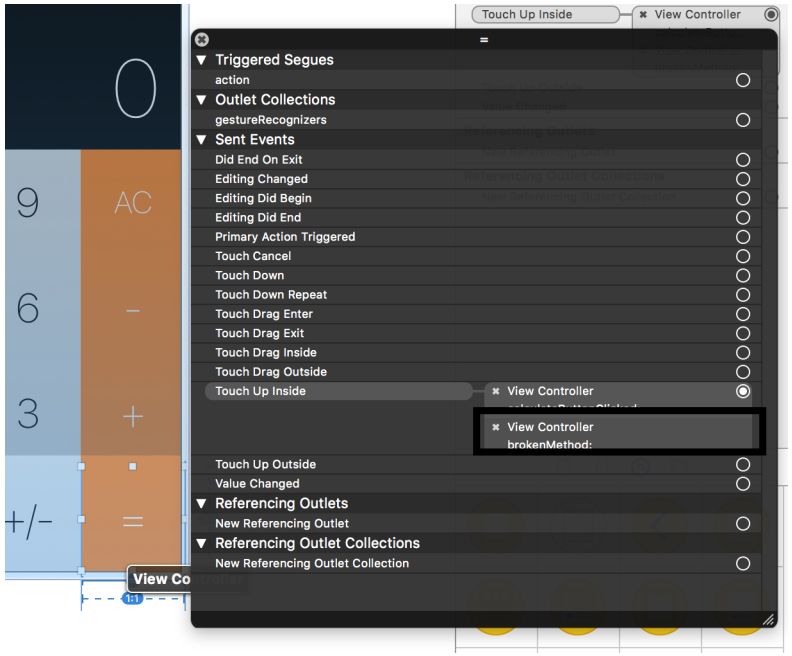
Debug hints > Unknown Actions

Debug hints - Unknown actions

```
2016-03-09 15:56:44.689 Calculator[37743:1045111] -[Calculator.ViewController brokenMethod:]: unrecognized selector sent to
instance 0x7fdd514561c0
(lldb)
```

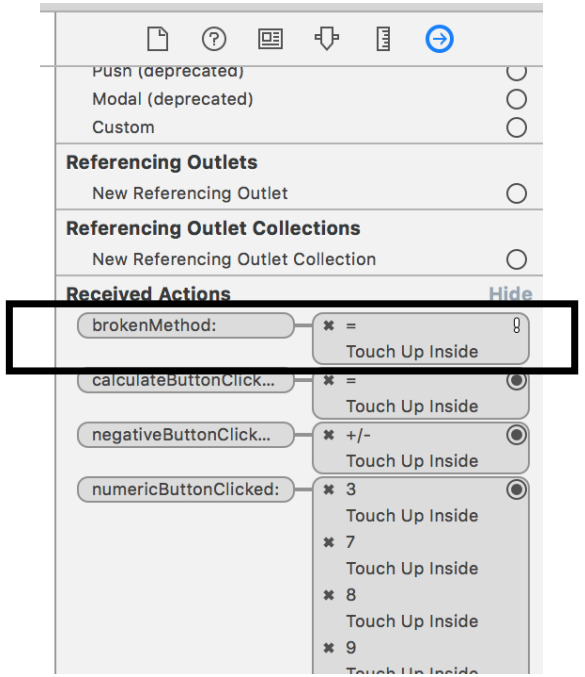
Usually happens when you remove a method from a view controller which is miss-created in the storyboard.

Debug hints - Unknown actions



Connection Popup

by right-click on an element



Connection Inspector

Hints of git commands

Create an account for git hosting service. GitHub or Bitbucket.

Create a remote git repository.

`git init`
Create a git local repo

`git add`
Add files to be committed

`git commit`
Save current progress

`git remote`
Add refs of remote repo

`git tag`
Annotate a tag

`git push [--tags]`
Send changes (or tags) to remote repo

Assignments

Read Human Interface Guidelines

We may have a simple report or quiz for this in the future classes.

Prepare your team final project.

Explore Apple's Swift Documentation

CocoaHeads Meet-up 3/10

Target on developers in Apple's platform

台北市大安區光復南路102號7樓 Cardinal Blue Office (PicCollage)

每月第二個週四 (Check CocoaHeads Facebook Group)