

Разработка приложений для iOS

Лекция 10

Поддержка iPad

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Вспомним прошлое занятие

**Как анимированно передвинуть
view?**

Как анимированно передвинуть view?

```
[UIView animateWithDuration:0.3 animations:^(  
    self.smallView.frame = ...;  
)];
```

**Как последовательно запустить
две анимации?**

Как последовательно запустить две анимации?

```
[UIView animateWithDuration:0.3
    animations:^(
        // первая анимация
    )
    completion:^(BOOL finished) {
        [UIView animateWithDuration:0.3 animations:^(
            // вторая анимация
        )];
    }];
];
```

**Как сразу изменить свойства всех
view данного типа?
(например всех UILabel)**

Как сразу изменить свойства всех
view данного типа?
(например всех UILabel)

```
id a = [UILabel appearance];  
[a setTextColor:[UIColor redColor]];
```


Приложения для iPad

No Selection

Choose options for your new project:

Product Name

Organization Name

Pandorama

Company Identifier

com.pandorama

Bundle Identifier

com.pandorama.ProductName

Prefix

XYZ

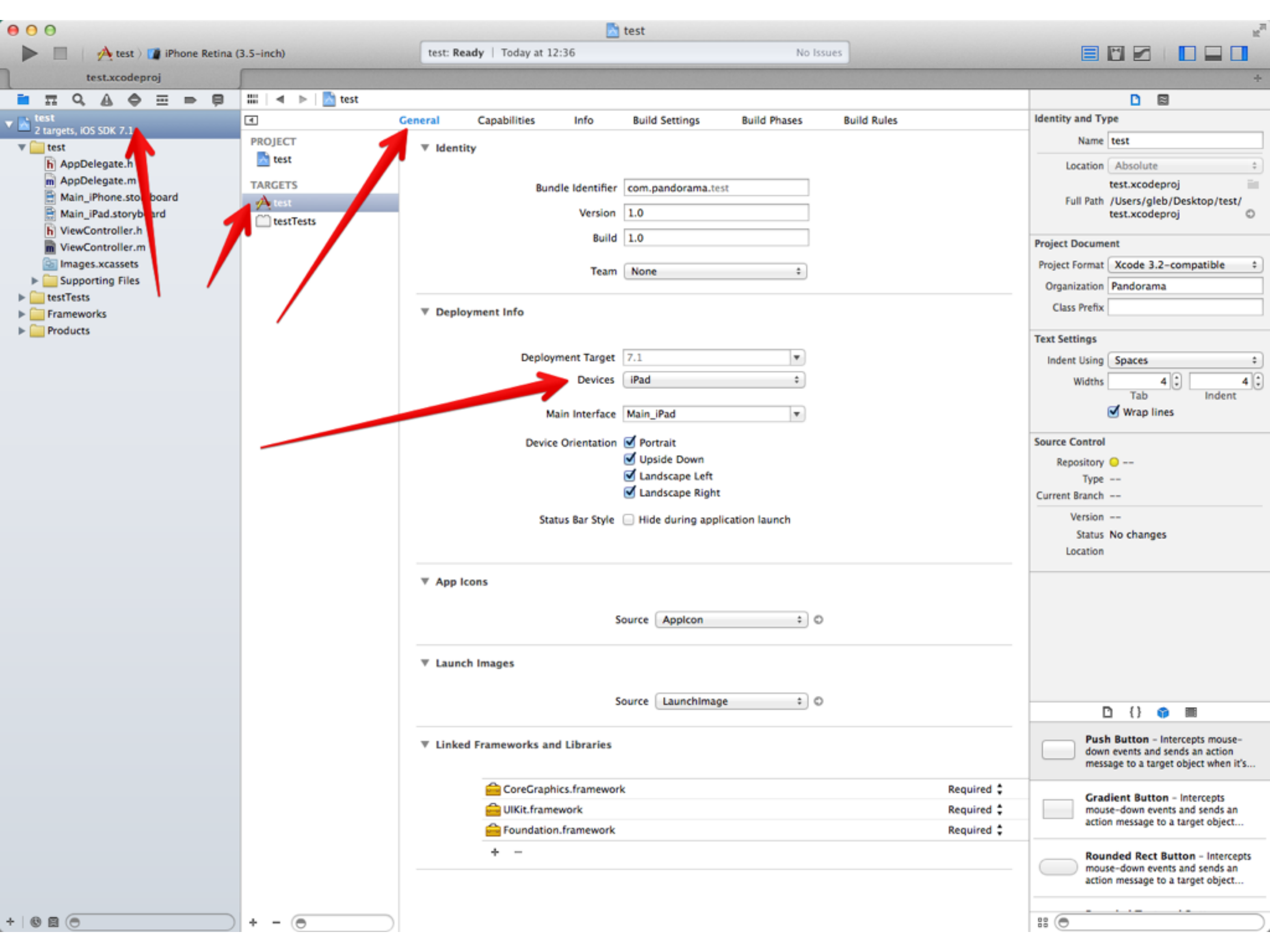
Devices

iPad

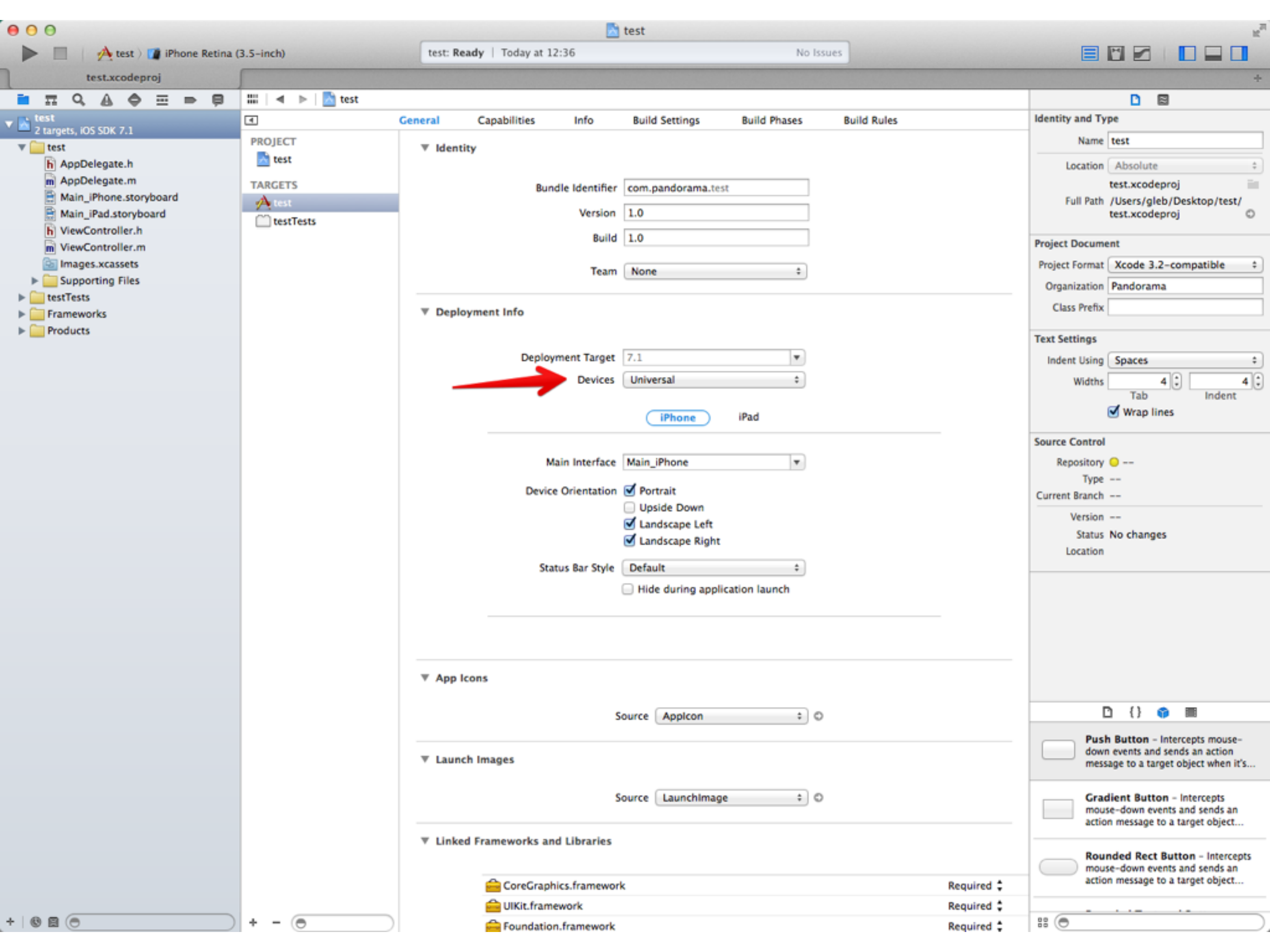
Cancel

Previous

Next



Универсальные приложения



test
2 targets, iOS SDK 7.1

- test
 - AppDelegate.h
 - AppDelegate.m
 - Main_iPhone.storyboard
 - Main_iPad.storyboard
 - ViewController.h
 - ViewController.m
 - Images.xcassets
 - Supporting Files
 - testTests
 - Frameworks
 - Products

General Capabilities Info Build Settings Build Phases Build Rules

PROJECT
test

TARGETS
test
testTests

▼ Identity

Bundle Identifier: com.pandorama.test

Version: 1.0

Build: 1.0

Team: None

▼ Deployment Info

Deployment Target: 7.1

Devices: Universal

iPhone iPad

Main Interface: Main_iPhone

Device Orientation:
 Portrait
 Upside Down
 Landscape Left
 Landscape Right

Status Bar Style: Default

Hide during application launch

▼ App Icons

Source: Appicon

▼ Launch Images

Source: LaunchImage

▼ Linked Frameworks and Libraries

CoreGraphics.framework	Required
UIKit.framework	Required
Foundation.framework	Required

Identity and Type

Name: test

Location: Absolute

test.xcodeproj

Full Path: /Users/gleb/Desktop/test/test.xcodeproj

Project Document

Project Format: Xcode 3.2-compatible

Organization: Pandora

Class Prefix:

Text Settings

Indent Using: Spaces

Widths: Tab: 4 Indent: 4

Wrap lines

Source Control

Repository: --

Type: --

Current Branch: --

Version: --

Status: No changes

Location:

Push Button - Intercepts mouse-down events and sends an action message to a target object when it's...

Gradient Button - Intercepts mouse-down events and sends an action message to a target object...

Rounded Rect Button - Intercepts mouse-down events and sends an action message to a target object...

Способы организации

- все делаем из кода
- одна Storyboard на оба устройства
- отдельные Storyboard на оба устройства, но контроллеры одни и те же
- полностью отдельные интерфейсы: две Storyboard и разные контроллеры
- три Storyboard: одна только для iPhone, одна для iPad, одна для одинаковых интерфейсов

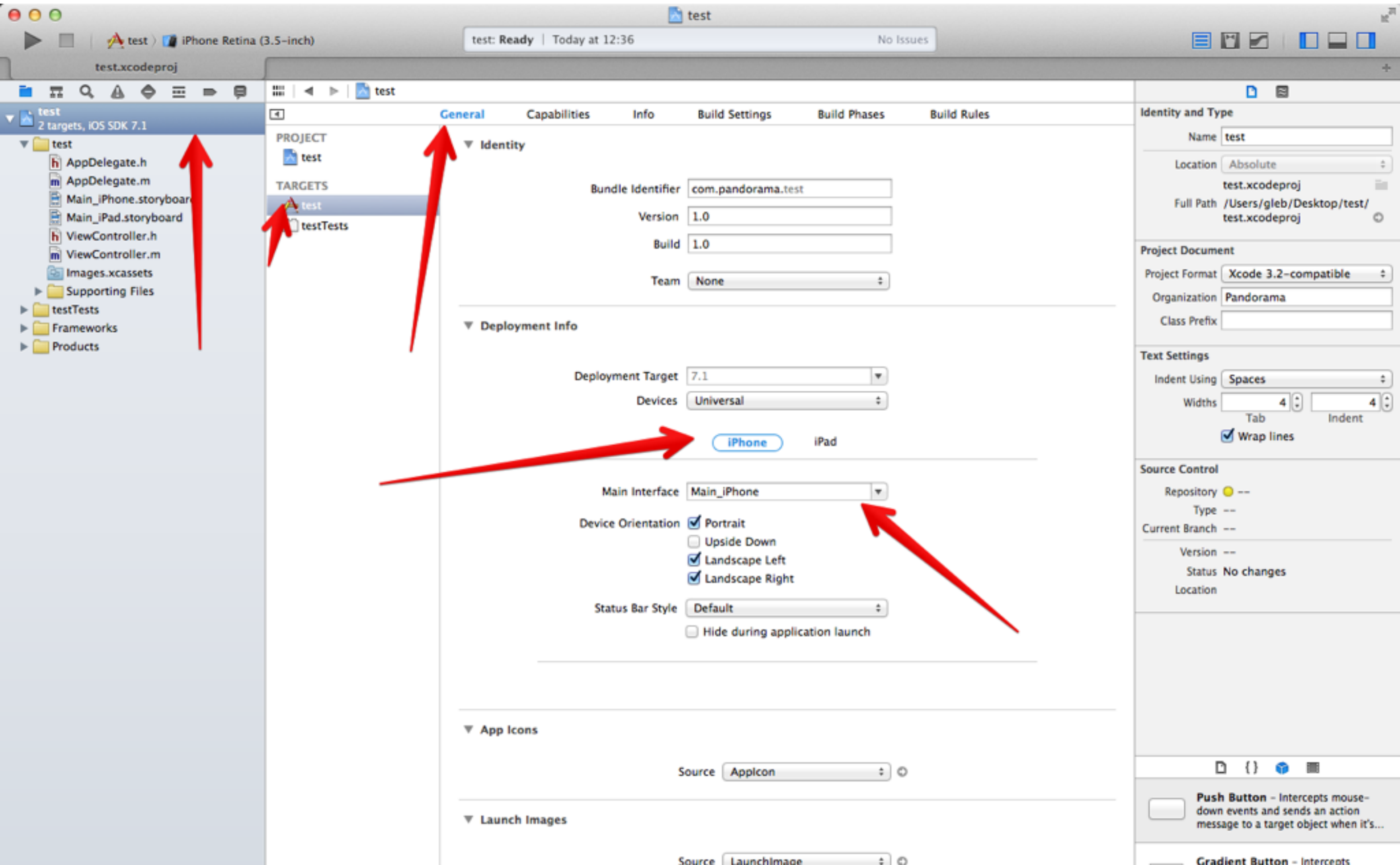
Проверка в коде

```
if (UI_USER_INTERFACE_IDIOM() == UIUserInterfaceIdiomPad)
{
    ...
}
```

```
+ (BOOL)isIpad
{
    return (UI_USER_INTERFACE_IDIOM() == UIUserInterfaceIdiomPad);
}
```

```
if ([Utils isIpad]) ...
```


Установка Storyboard



Одна Storyboard

```
- (void) viewDidLoad
{
    [super viewDidLoad];

    if ([Utils isIpad])
    {
        // подправляем интерфейс под iPad
    }
}
```

Две Storyboard, один КОНТРОЛЛЕР

```
- (IBAction)buttonTapped
{
    if ([Utils isIpad])
    {
        // действие на iPad
    }
    else
    {
        // действие на iPhone
    }
}
```

iPad-контроллер наследник iPhone

```
@interface ViewController_iPad : ViewController  
  
@end
```

```
- (IBAction)buttonTapped  
{  
    ...  
}
```

Общий базовый КОНТРОЛЛЕР

```
@interface ViewController_iPad : ViewController
```

```
@end
```

```
@interface ViewController_iPhone : ViewController
```

```
@end
```

Работа с несколькими Storyboard

```
@interface AppDelegate : UIResponder <UIApplicationDelegate>

+ (AppDelegate *)instance;

- (UIStoryboard *)iphoneStoryboard;
- (UIStoryboard *)ipadStoryboard;
- (UIStoryboard *)generalStoryboard;

@property (strong, nonatomic) UIWindow *window;

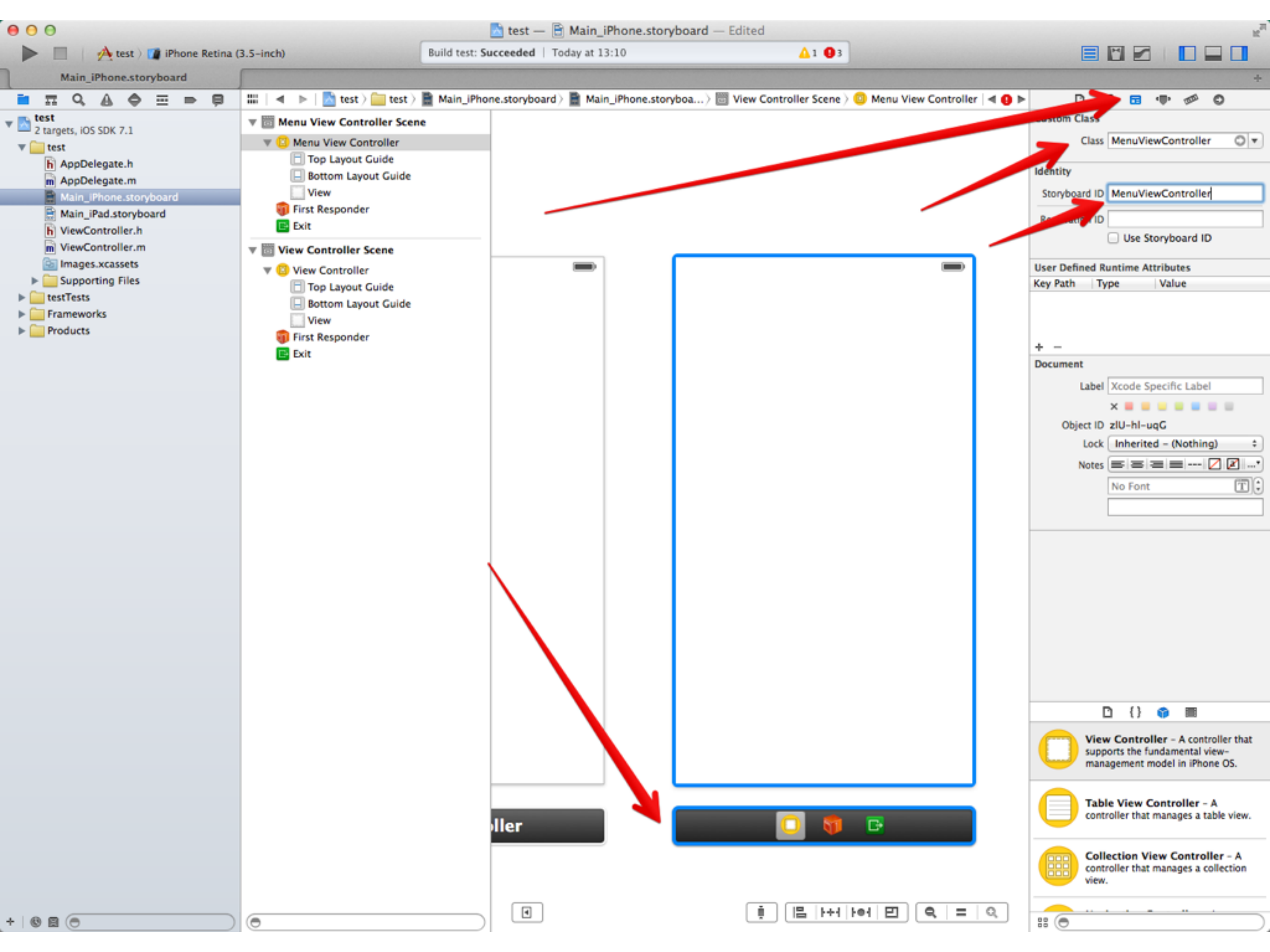
@end
```



```
- (IBAction)buttonTapped
{
    UIStoryboard *s = [AppDelegate instance].generalStoryboard;

    MenuViewController *m = [s
        instantiateViewControllerWithIdentifier:@"MenuViewController"];

    [self presentViewController:m animated:YES completion:nil];
}
```



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- Menu View Controller Scene
 - Menu View Controller
 - Top Layout Guide
 - Bottom Layout Guide
 - View
 - First Responder
 - Exit
 - View Controller Scene
 - View Controller
 - Top Layout Guide
 - Bottom Layout Guide
 - View
 - First Responder
 - Exit

Custom Class

Class: MenuViewController

Identity

Storyboard ID: MenuViewController

Resource ID:

Use Storyboard ID

User Defined Runtime Attributes

Key Path	Type	Value
----------	------	-------

Document

Label: Xcode Specific Label

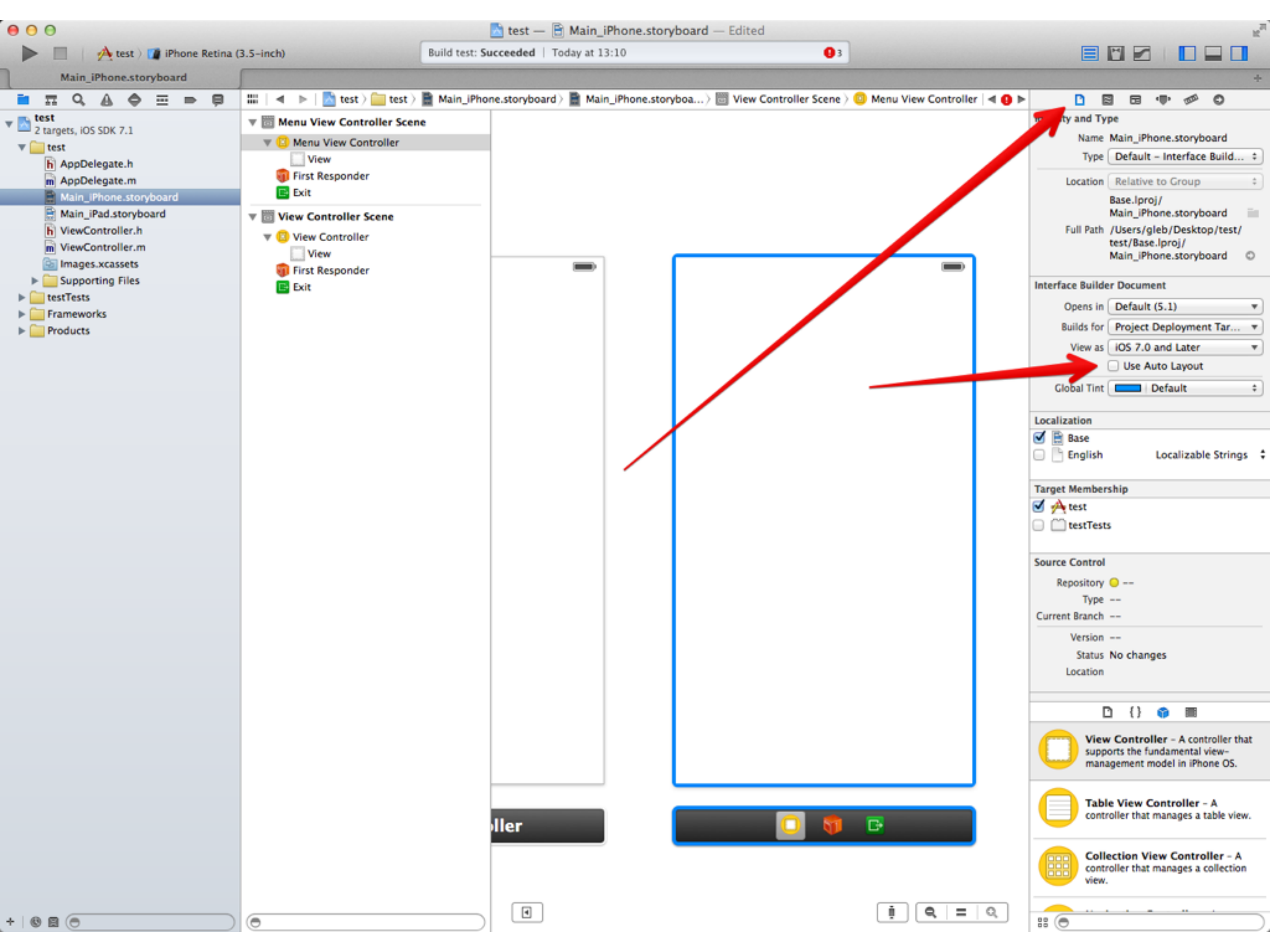
Object ID: zIU-hl-uqG

Lock: Inherited - (Nothing)

Notes: No Font

- View Controller** - A controller that supports the fundamental view-management model in iPhone OS.
- Table View Controller** - A controller that manages a table view.
- Collection View Controller** - A controller that manages a collection view.

**autosizing
&
autolayouts**



- test
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- Menu View Controller Scene
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 - View
 - First Responder
 - Exit
- View Controller Scene
 - View Controller
 - View
 - First Responder
 - Exit

Identity and Type

Name: Main_iPhone.storyboard
Type: Default - Interface Build...
Location: Relative to Group
Base.lproj/Main_iPhone.storyboard
Full Path: /Users/gleb/Desktop/test/test/Base.lproj/Main_iPhone.storyboard

Interface Builder Document

Opens in: Default (5.1)
Builds for: Project Deployment Tar...
View as: iOS 7.0 and Later
 Use Auto Layout
Global Tint: Default

- Localization**
- Base
 - English
- Localizable Strings

- Target Membership**
- test
 - testTests

Source Control

Repository: --
Type: --
Current Branch: --
Version: --
Status: No changes
Location: --

- View Controller** - A controller that supports the fundamental view-management model in iPhone OS.
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- Collection View Controller** - A controller that manages a collection view.

View

Show **Frame Rectangle**

	<input type="text" value="85"/> X	<input type="text" value="47"/> Y
	<input type="text" value="150"/> Width	<input type="text" value="198"/> Height

Origin

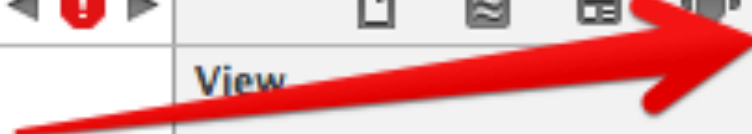
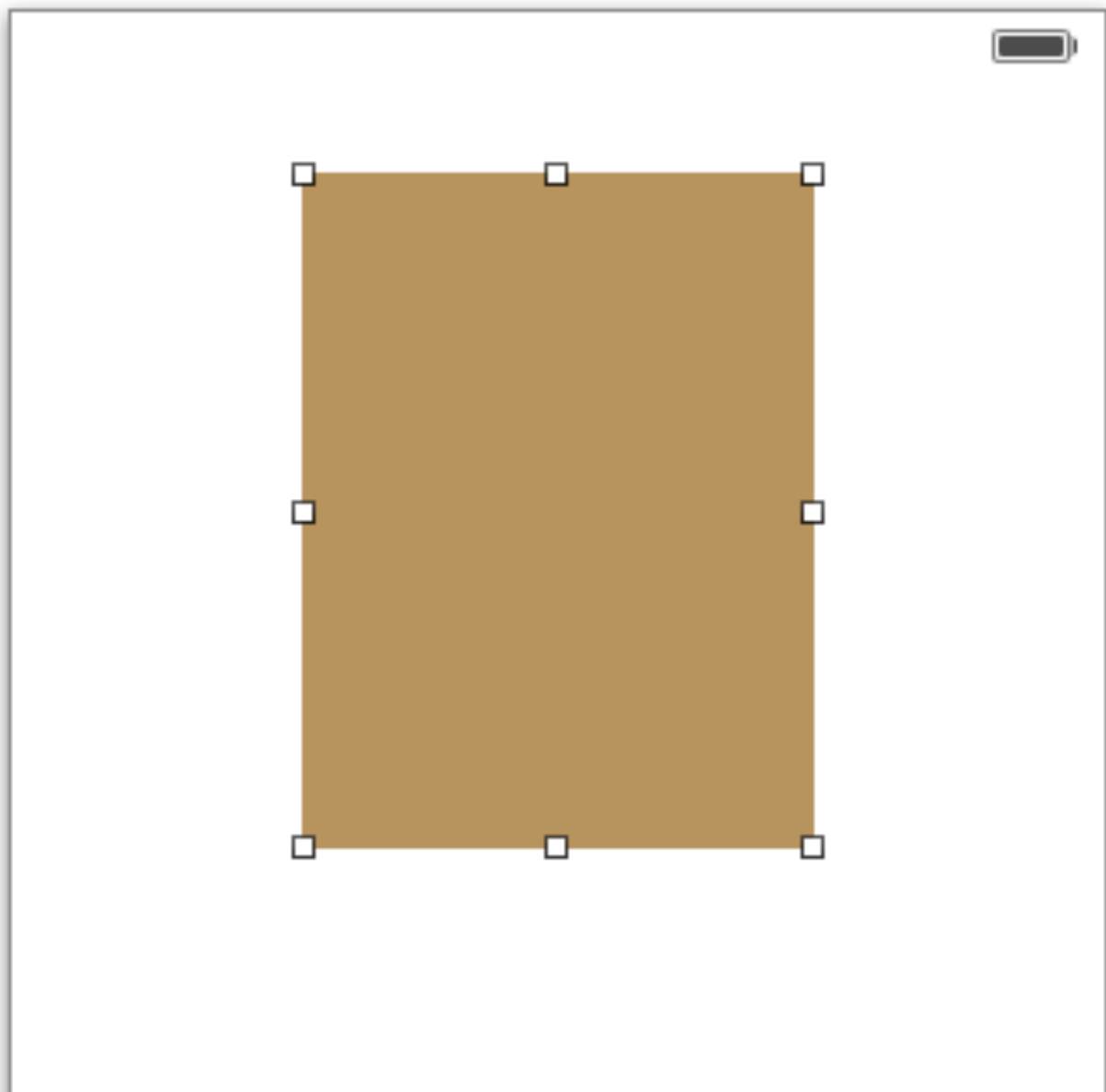
Autosizing

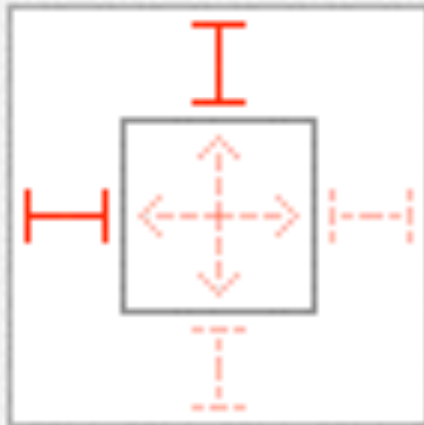
Example

iOS Deltas ΔX ΔY

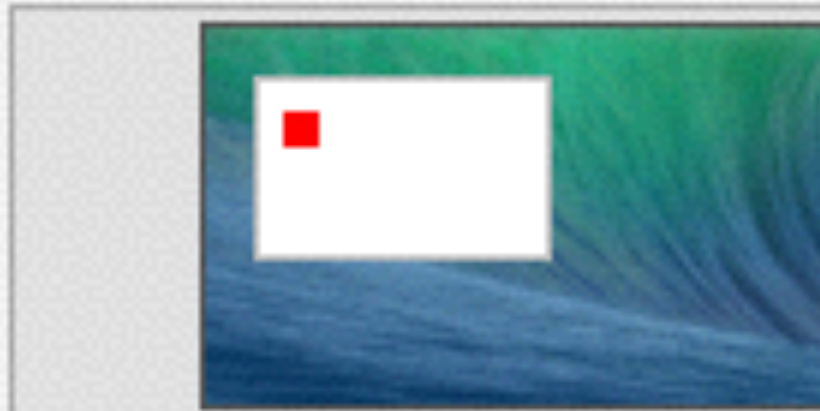
$\Delta Width$ $\Delta Height$

Arrange **Position View**

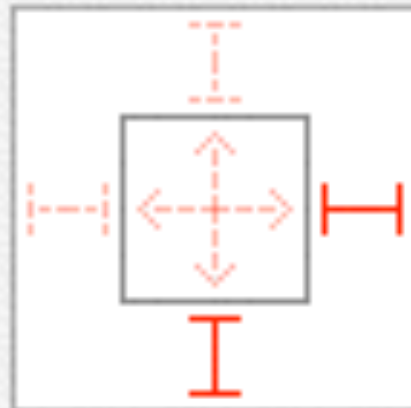




Autosizing



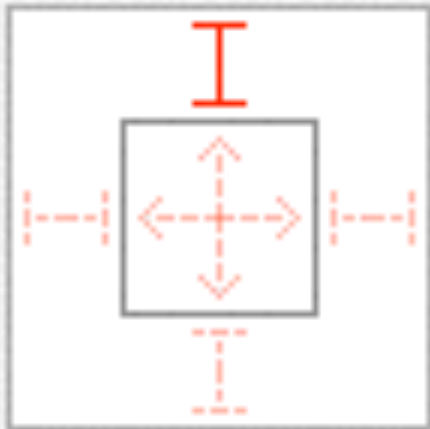
Example



Autosizing



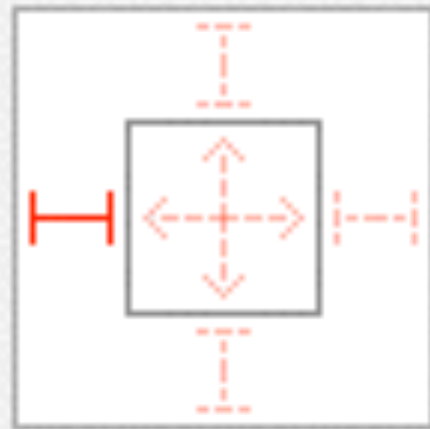
Example



Autosizing



Example



Autosizing



Example

layoutSubviews

```
@interface MyView : UIView
```

```
@end
```

```
@implementation MyView
```

```
- (void)layoutSubviews
```

```
{  
    [super layoutSubviews];
```

```
    ...
```

```
}
```

```
@end
```

```
@implementation ViewController

- (void)viewWillLayoutSubviews
{
    [super viewWillLayoutSubviews];
    ...
}

- (void)viewDidLayoutSubviews
{
    [super viewDidLayoutSubviews];
    ...
}

@end
```

```
- (void) viewDidLayoutSubviews
{
    [super viewDidLayoutSubviews];

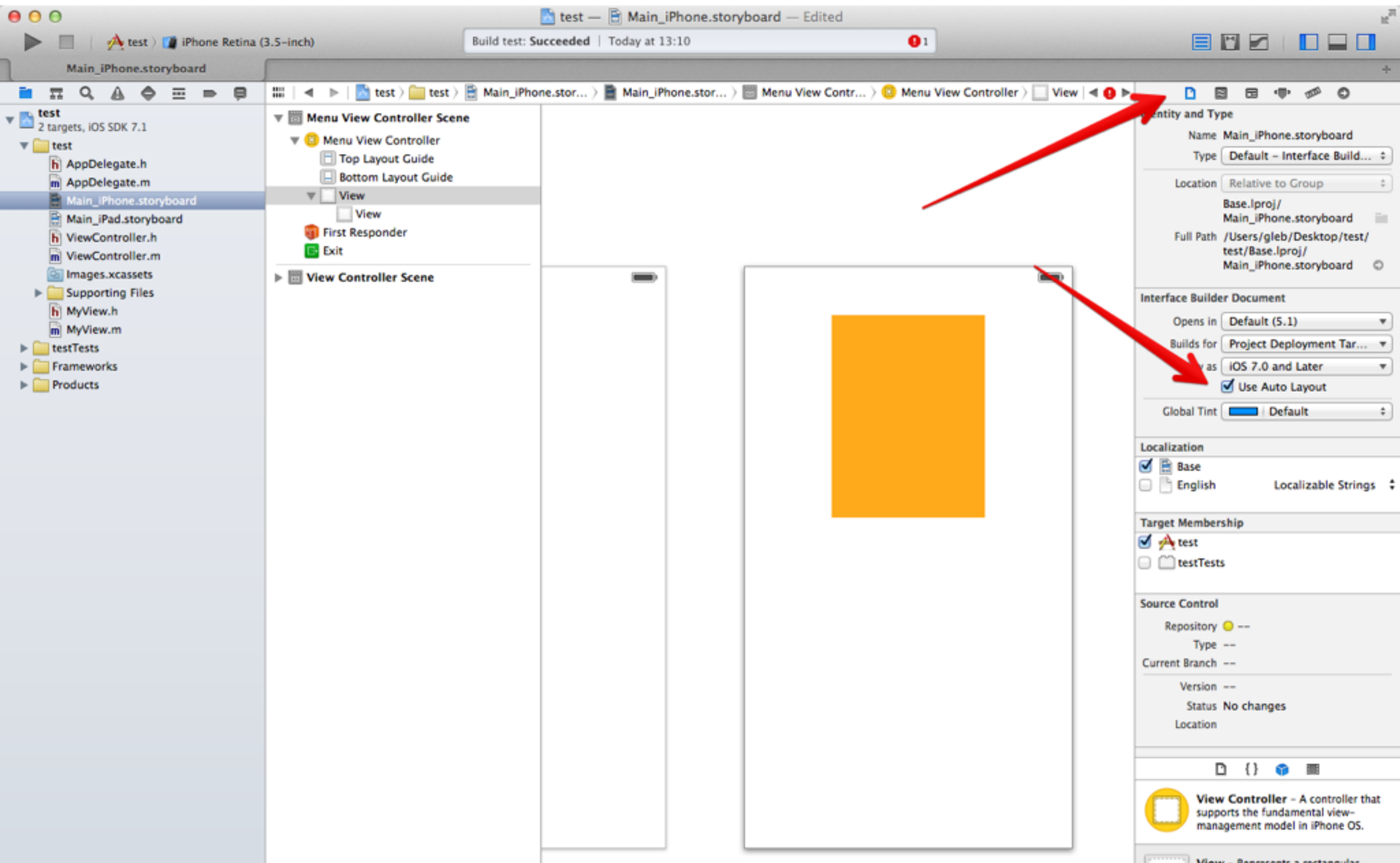
    CGRect frame = self.smallView.frame;

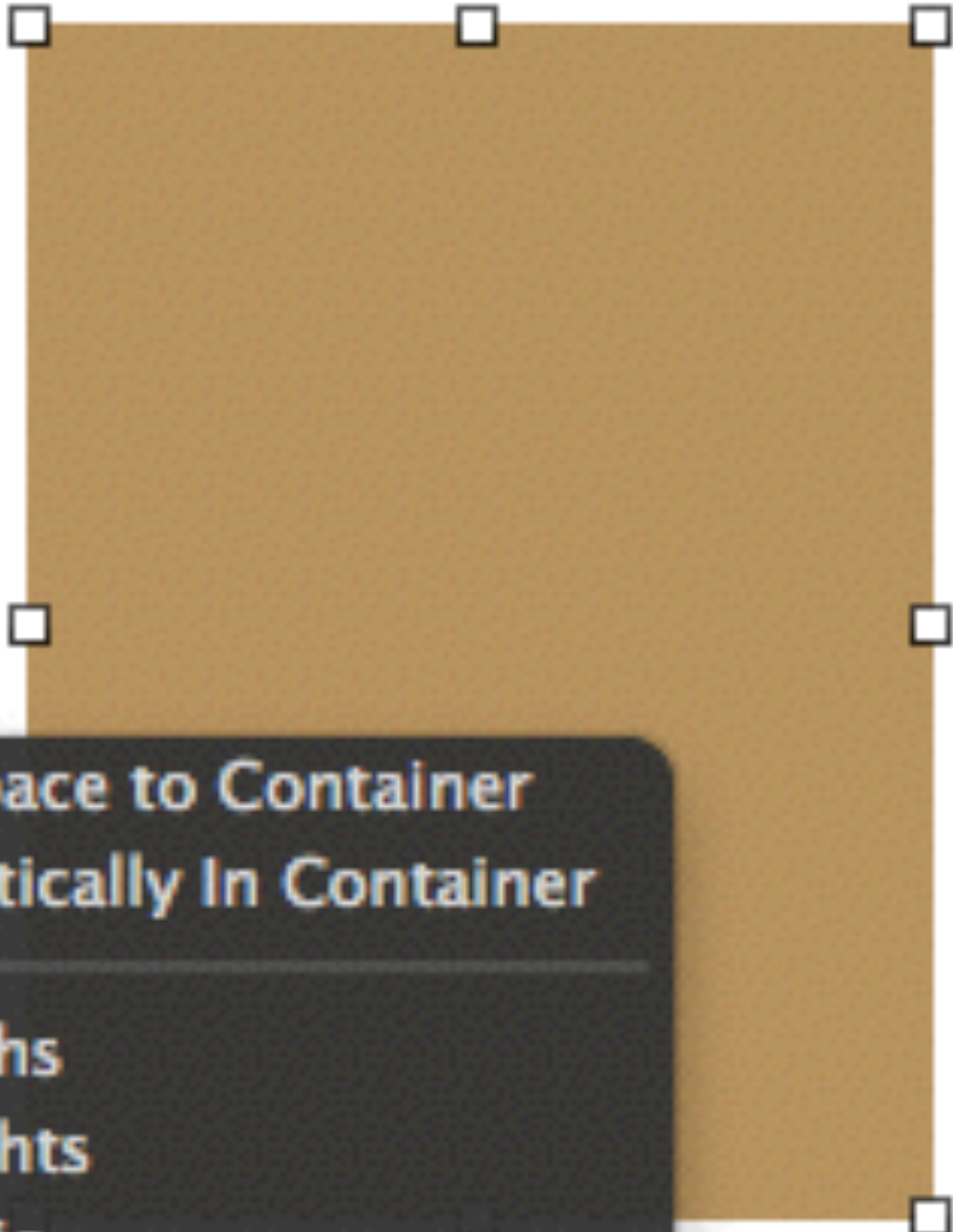
    frame.origin.x = (self.view.frame.size.width
                     - frame.size.width) / 2;

    frame.origin.y = (self.view.frame.size.height
                     - frame.size.height) / 2;

    self.smallView.frame = frame;
}
```


Auto Layout

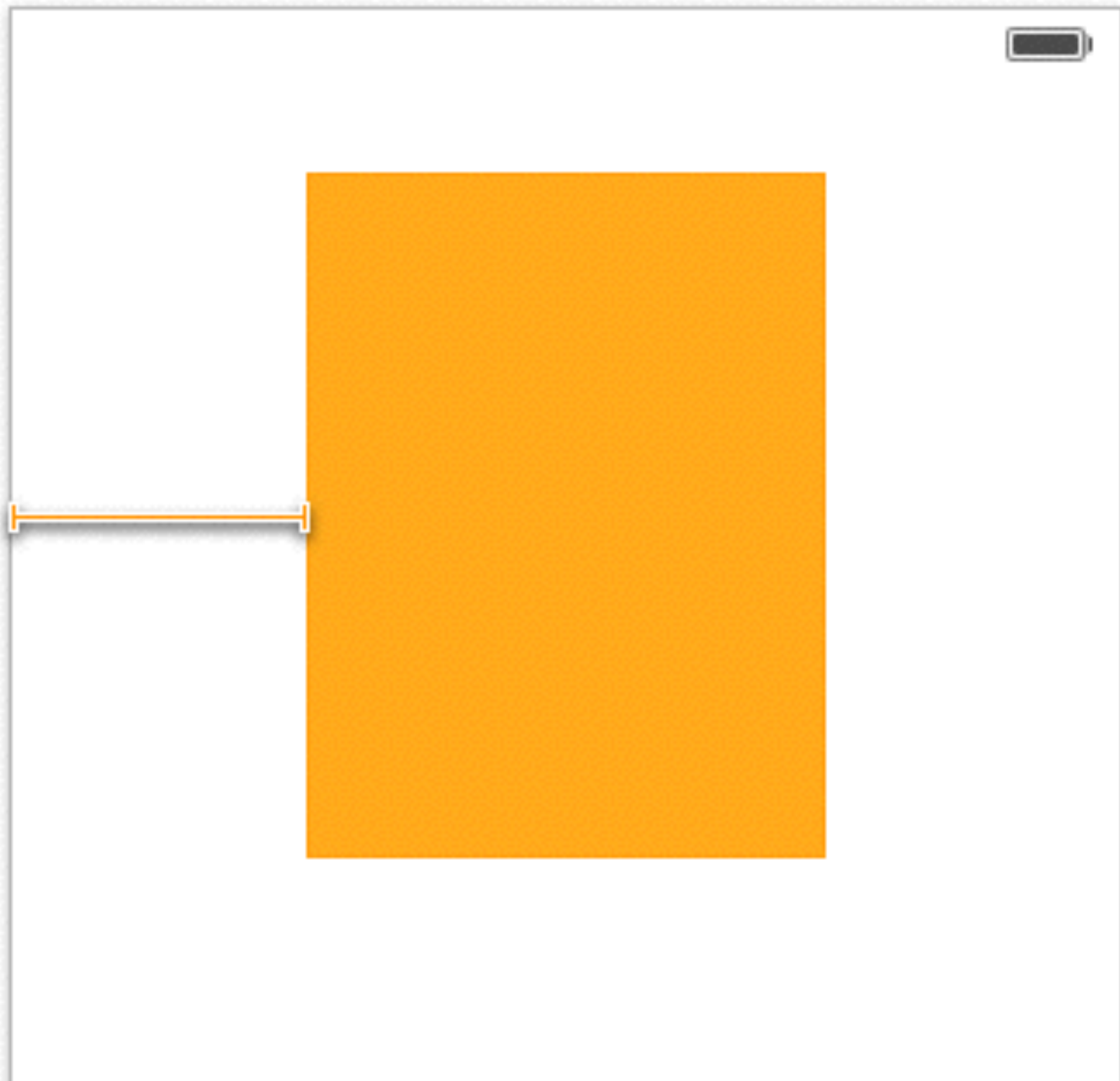


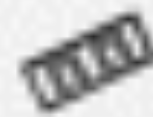


Leading Space to Container
Center Vertically In Container

Equal Widths
Equal Heights
Aspect Ratio

Hold Shift to select multiple then
click away or hit return





Horizontal Space Constraint

First Item

View.Leading



Relation

Equal



Second Item

Superview.Leading



Multiplier

1



Constant

85



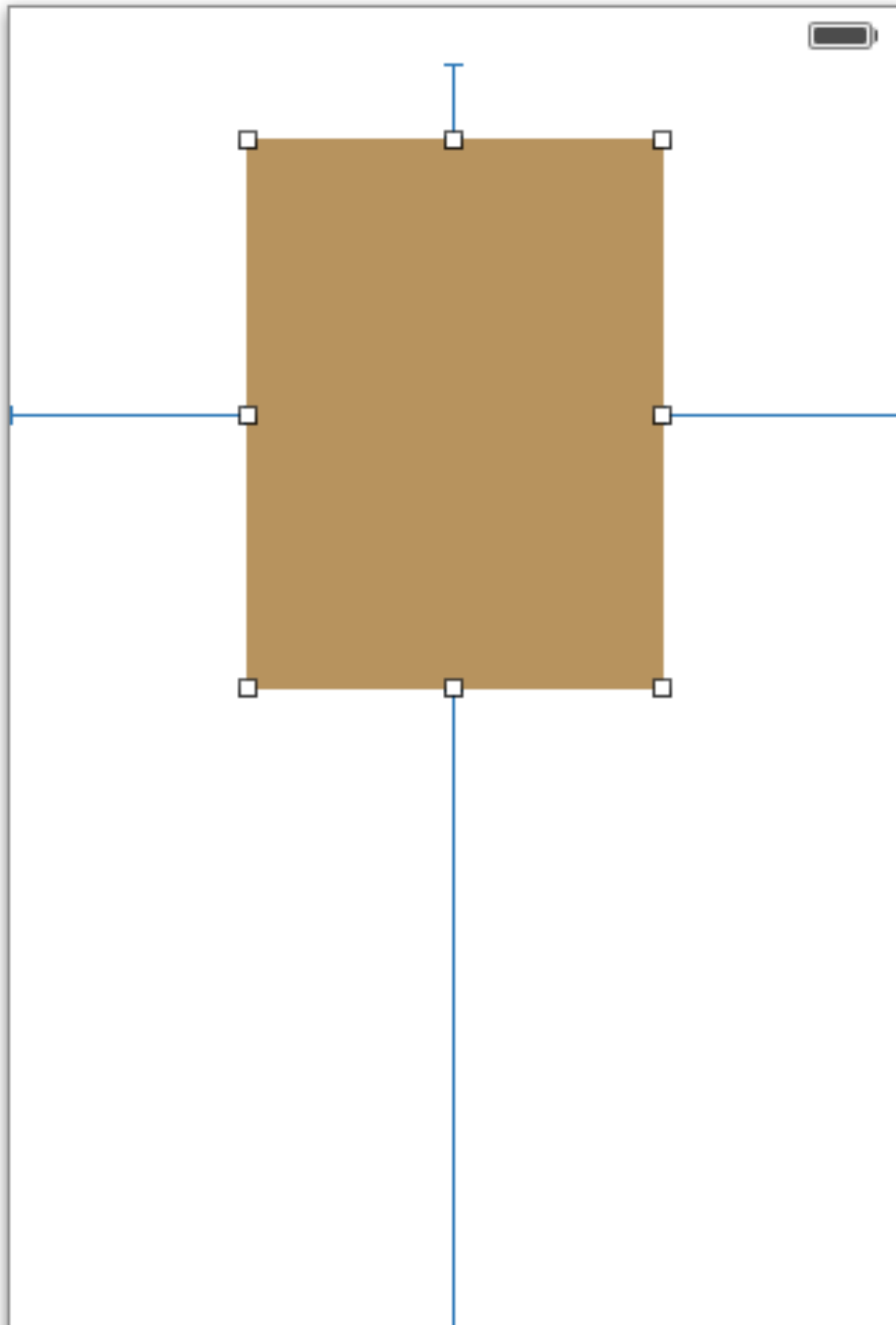
Priority

1000



Placeholder

Remove at build time



Origin

Content Hugging Priority

Horizontal 250

Vertical 250

Content Compression Resistance Priority

Horizontal 750

Vertical 750

Intrinsic Size Default (System Defined)

Constraints

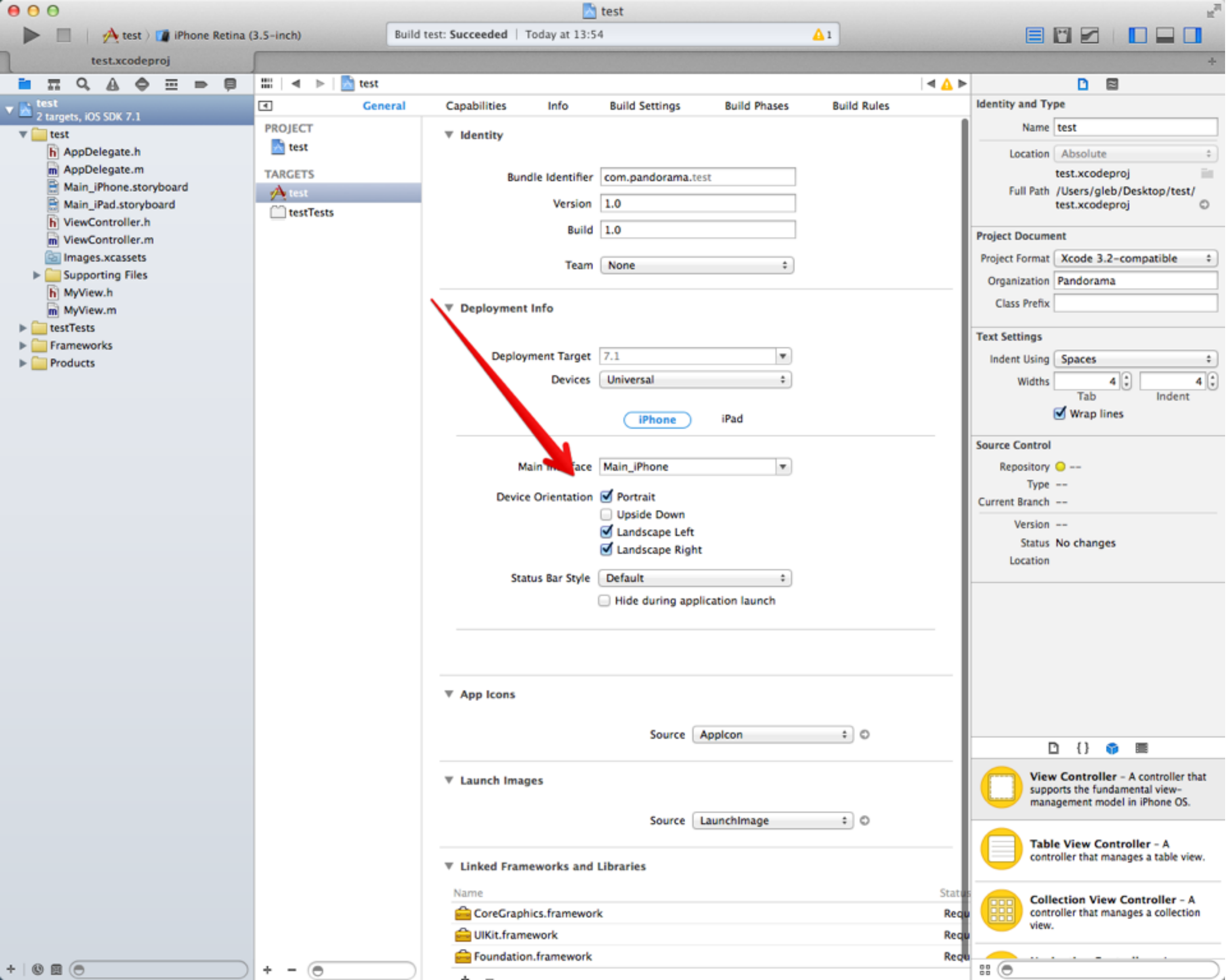
Leading Space to: Superview
Equals: 85

Trailing Space to: Superview
Equals: 85

Top Space to: Top Layout...
Equals: 27

Bottom Space to: Bottom Lay...
Equals: 323

Повороты экрана



```
@implementation ViewController

- (NSUInteger)supportedInterfaceOrientations
{
    return UIInterfaceOrientationMaskLandscape;
}

@end
```


Ориентация для UINavigationController

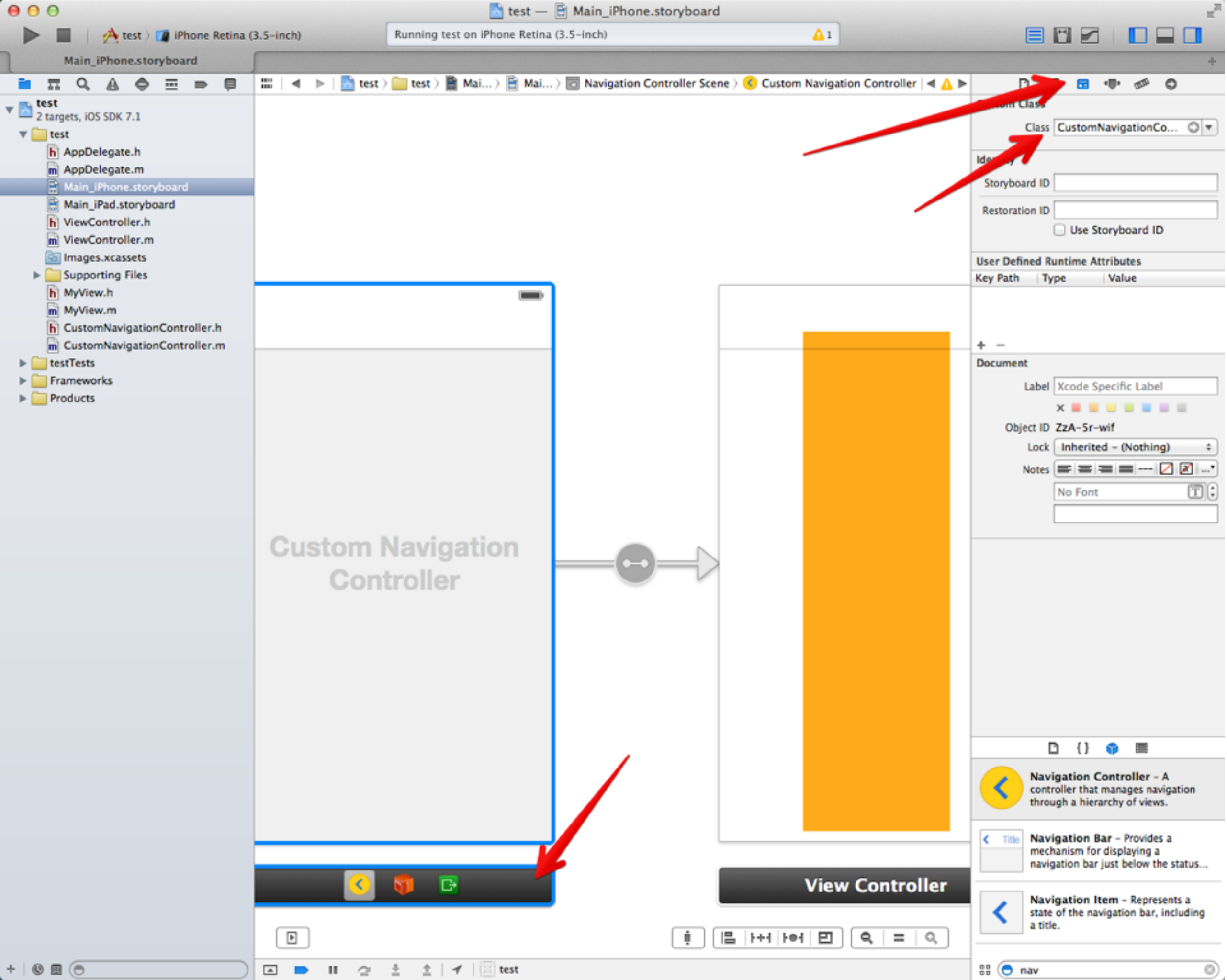
```
@interface CustomNavigationController : UINavigationController
```

```
@end
```

```
@implementation CustomNavigationController
```

```
- (NSUInteger)supportedInterfaceOrientations  
{  
    return UIInterfaceOrientationMaskLandscape;  
}
```

```
@end
```



```
@implementation CustomNavigationController

- (NSUInteger)supportedInterfaceOrientations
{
    return self.topViewController.supportedInterfaceOrientations;
}

- (BOOL)shouldAutorotate
{
    return self.topViewController.shouldAutorotate;
}

@end
```



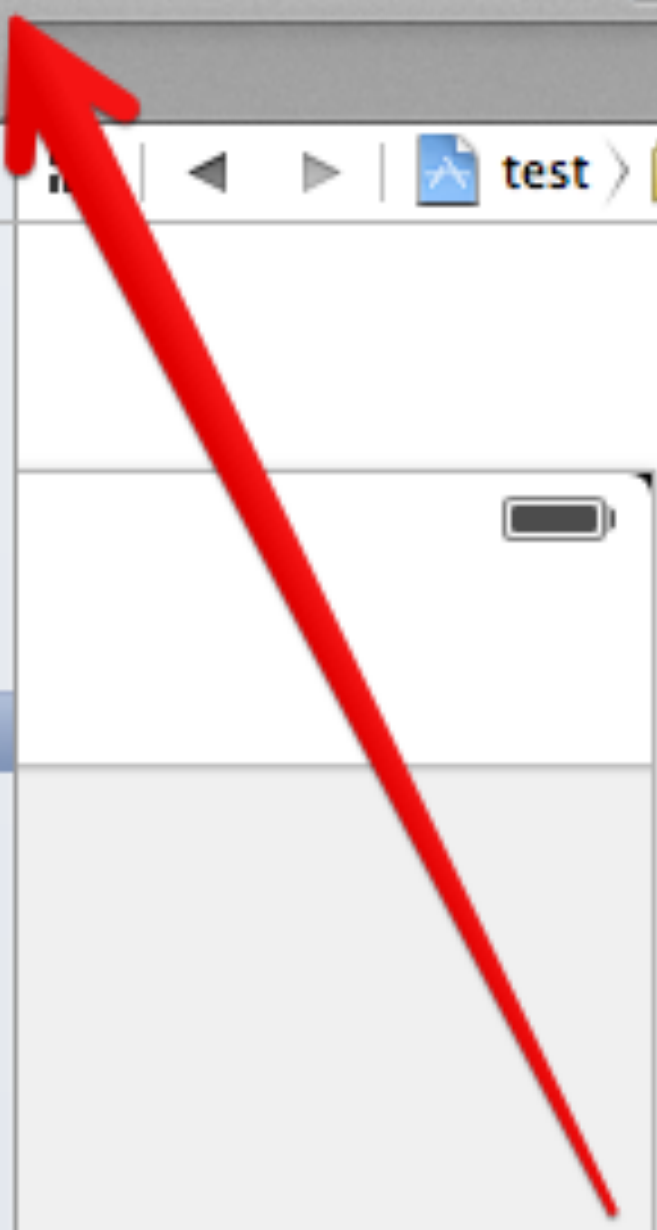
test > iPhone Retina (4-inch)


Finished running test on iPhone Ret

Main_iPad.storyboard




- test
2 targets, iOS SDK 7.1
 - test
 - AppDelegate.h
 - AppDelegate.m
 - Main_iPhone.storyboard
 - Main_iPad.storyboard**
 - ViewController.h
 - ViewController.m
 - Images.xcassets
 - Supporting Files
 - MyView.h
 - MyView.m
 - CustomNavigationController.h
 - CustomNavigationController.m
 - SecondViewController.h
 - SecondViewController.m
 - testTests
 - Frameworks




 iOS Device


iOS Simulator


 iPhone Retina (3.5-inch)

✓  iPhone Retina (4-inch)

 iPhone Retina (4-inch 64-bit)

 iPad

 iPad Retina

 iPad Retina (64-bit)

UISplitViewController

Оператор

3:34 PM

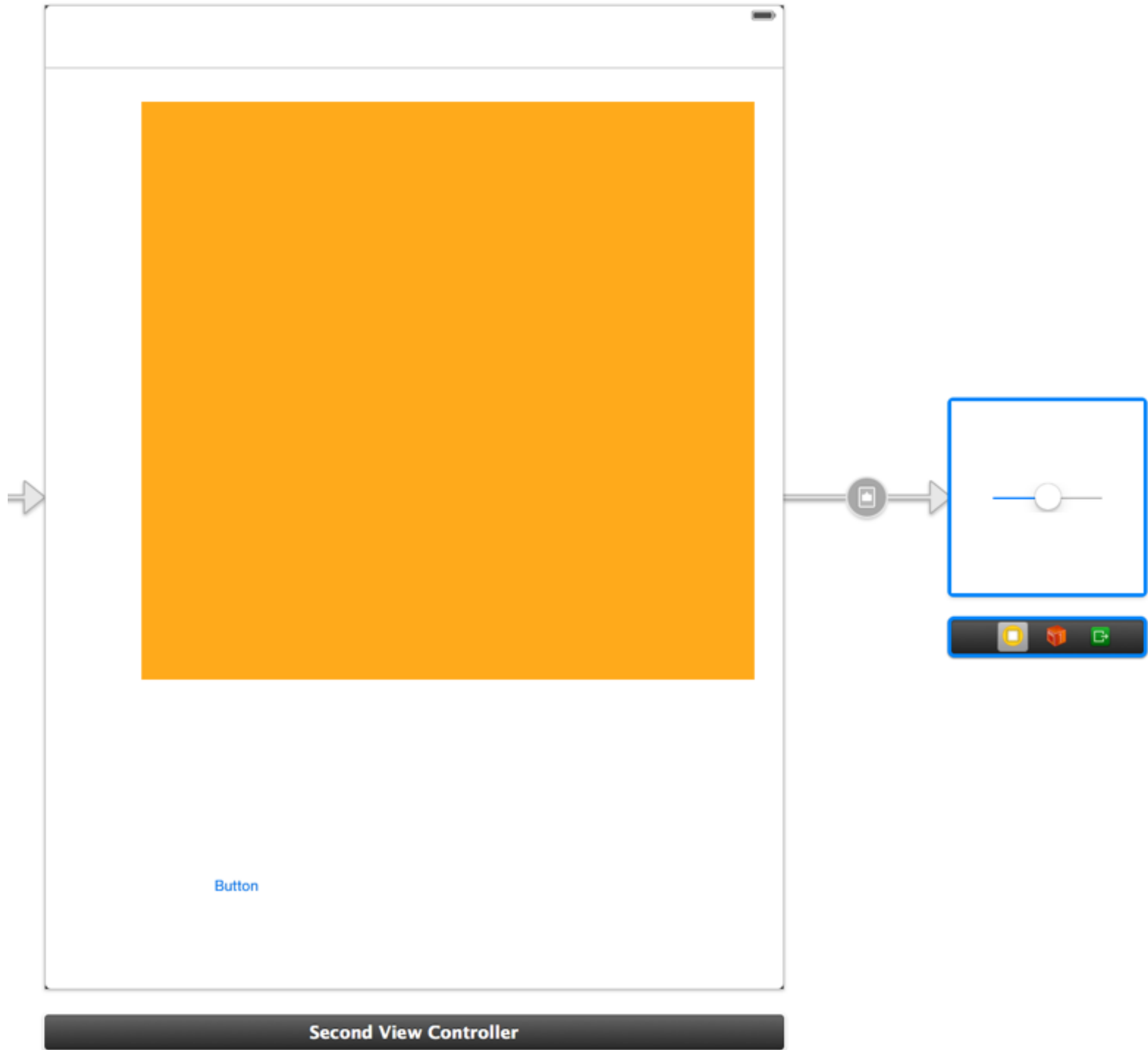
100%

Меню

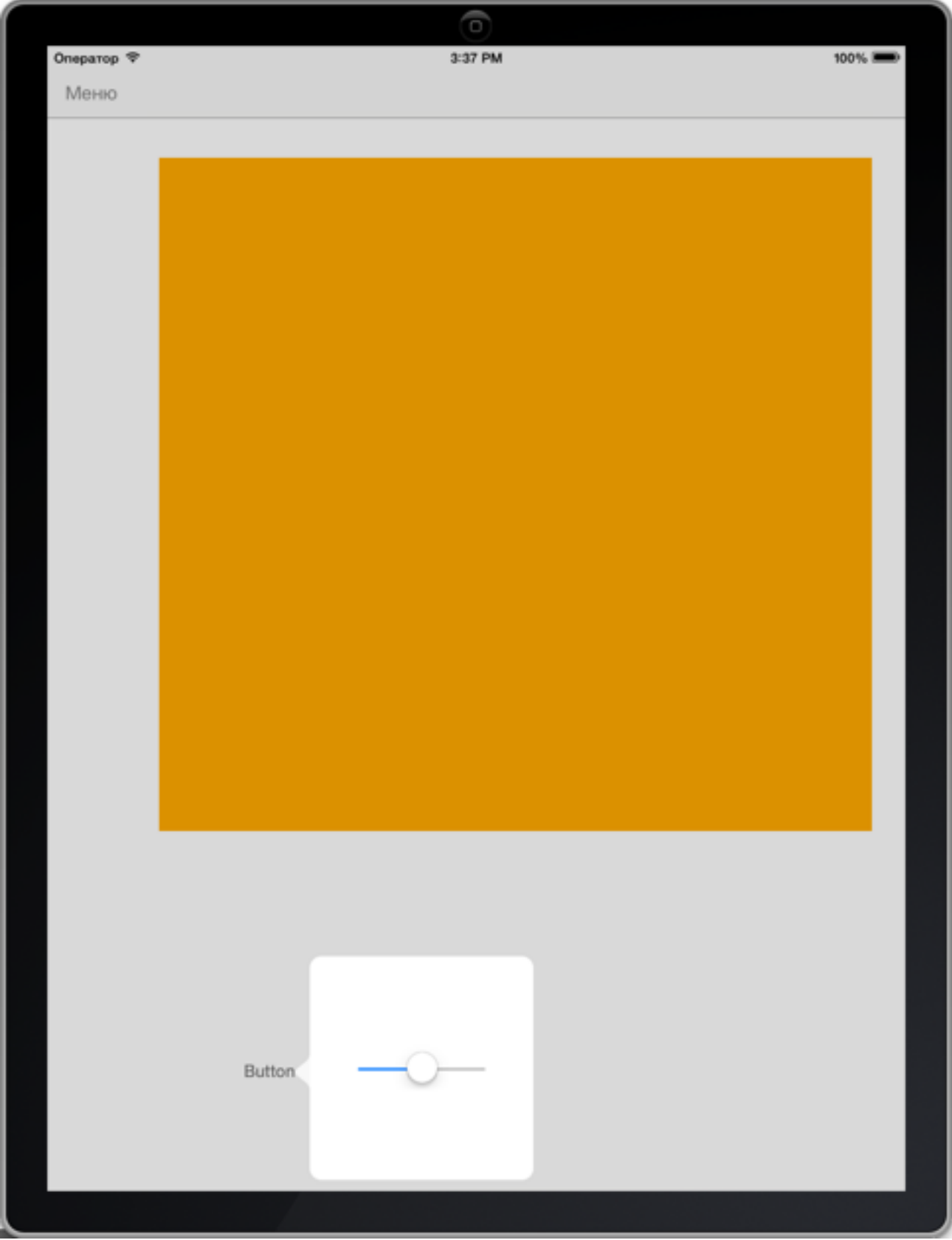


Чтобы показывать кнопку
«Меню», надо обрабатывать
UISplitViewControllerDelegate

UIPopoverController



Second View Controller



Домашнее задание

- продумать интерфейс для iPad
- продумать, каким способом проще всего добавить поддержку iPad
- добавить поддержку iPad в наше приложение

Всё!

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