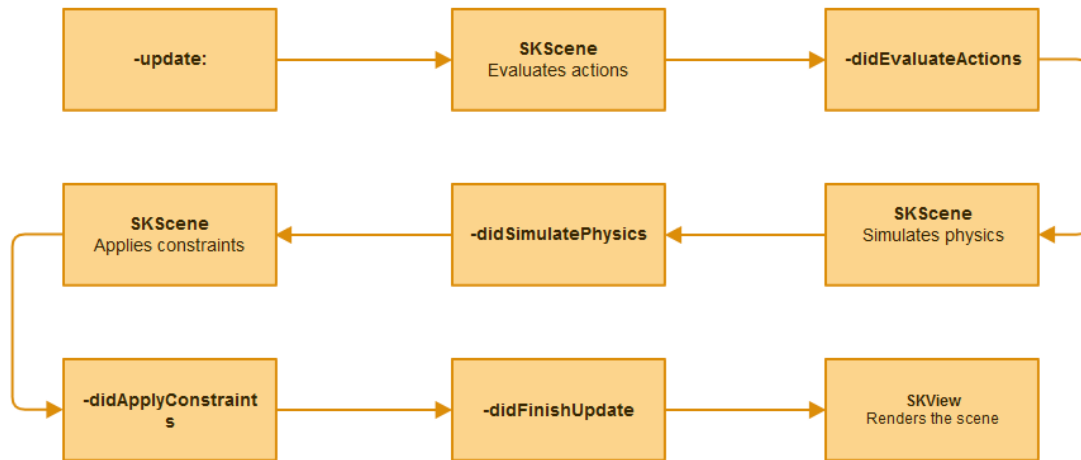
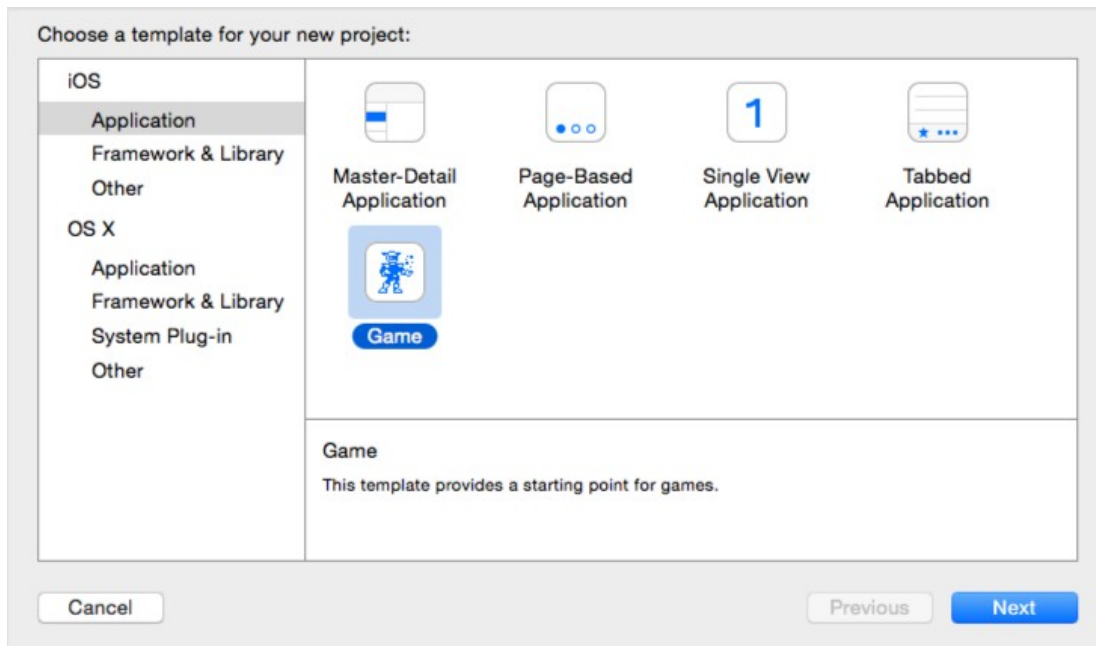
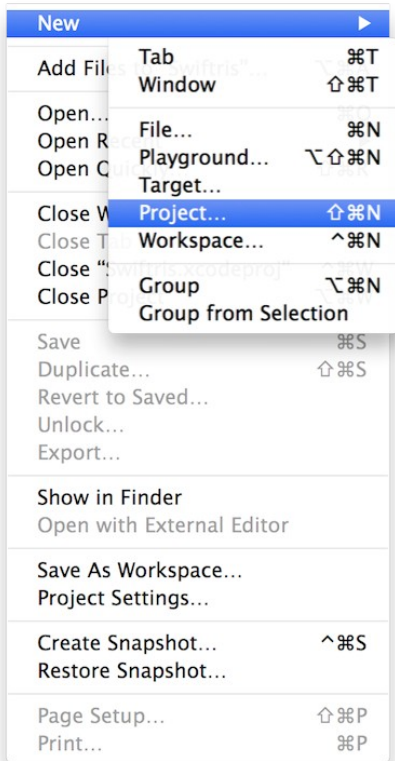


Chapter 1: An Introduction to Sprite Kit

Each frame life cycle





Choose options for your new project:

Product Name:

Organization Name:

Organization Identifier:

Bundle Identifier:

Language:

Game Technology:

Devices:

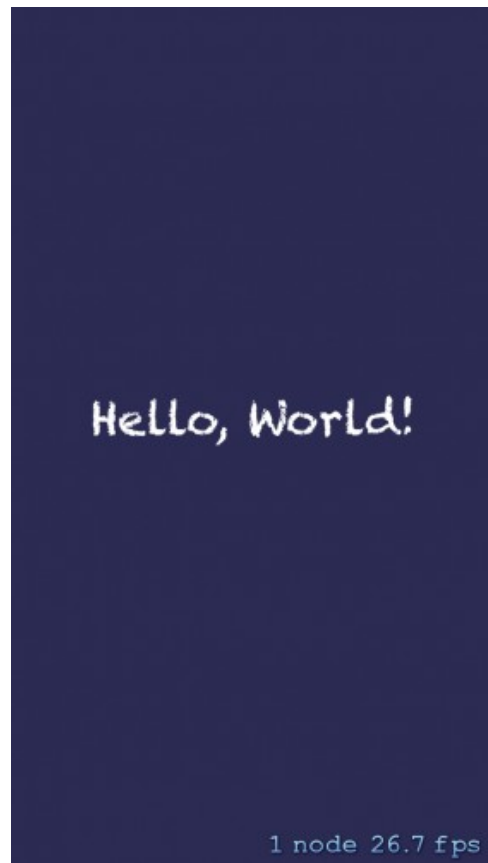
Cancel

Previous

Next

The screenshot shows the Xcode interface for a project named 'Platformer'. The left sidebar displays the project's file structure, including source files like AppDelegate.swift, GameScene.sks, and GameViewController.swift, as well as assets like Main.storyboard and Images.xcassets. The main area is divided into several tabs: General, Capabilities, Info, Build Settings, Build Phases, and Build Rules. The 'Info' tab is active, showing the following settings:

- Identity:** Bundle Identifier (com.test.Platformer), Version (1.0), Build (1), Team (None).
- Deployment Info:** Deployment Target (8.3), Devices (iPhone), Main Interface (Main), Device Orientation (Portrait, selected), Status Bar Style (Default, Hide status bar checked).
- App Icons and Launch Images:** App Icons Source (AppIcon), Launch Images Source (Use Asset Catalog), Launch Screen File (LaunchScreen).
- Embedded Binaries:** Add embedded binaries here.
- Linked Frameworks and Libraries:** Add frameworks & libraries here.



Chapter 2: Scenes in Sprite Kit

▼ Deployment Info

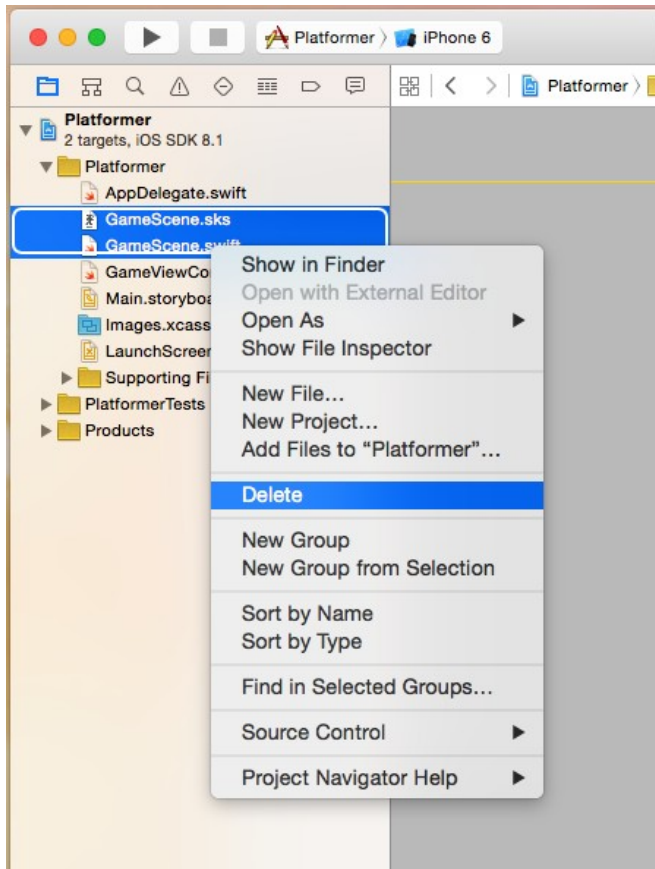
Deployment Target: 8.1

Devices: iPhone

Main Interface: Main

Device Orientation: Portrait
 Upside Down
 Landscape Left
 Landscape Right

Status Bar Style: Default
 Hide status bar



Platformer > iPhone 6 | Platformer: Ready | Today at 10:48 am

Platformer > Platformer > GameViewController.swift > SKNode

```
1 //
2 // GameViewController.swift
3 // Platformer
4 //
5 // Created by Daphnis Labs on 01/07/15.
6 // Copyright (c) 2015 Test. All rights reserved.
7 //
8
9 import UIKit
10 import SpriteKit
11
12 extension SKNode {
13     class func unarchiveFromFile(file : String) -> SKNode? {
14         if let path = NSBundle.mainBundle().pathForResource(file, ofType: "sks") {
15             var sceneData = NSData(contentsOfFile: path, options: .DataReadingMappedIfSafe, error: nil)!
16             var archiver = NSKeyedUnarchiver(forReadingWithData: sceneData)
17
18             archiver.setClass(self.classForKeyedUnarchiver(), forClassName: "SKScene")
19             let scene = archiver.decodeObjectForKey(NSKeyedArchiveRootObjectKey) as! GameScene
20             archiver.finishDecoding()
21             return scene
22         } else {
23             return nil
24         }
25     }
26 }
27
28 class GameViewController: UIViewController {
29
30     override func viewDidLoad() {
31         super.viewDidLoad()
32
33         if let scene = GameScene.unarchiveFromFile("GameScene") as? GameScene {
34             // Configure the view.
35             let skView = self.view as! SKView
36             skView.showsFPS = true
37             skView.showsNodeCount = true
38
39             /* Sprite Kit applies additional optimizations to improve rendering performance */
40             skView.ignoresSiblingOrder = true
41
42             /* Set the scale mode to scale to fit the window */
43             scene.scaleMode = .AspectFill
44
45             skView.presentScene(scene)
46         }
47     }
48
49     override func shouldAutorotate() -> Bool {
50         return true
51     }
52
53     override func supportedInterfaceOrientations() -> Int {
54         if UIDevice.currentDevice().userInterfaceIdiom == .Phone {
55             return Int(UIInterfaceOrientationMask.AllButUpsideDown.rawValue)
56         } else {
57             return Int(UIInterfaceOrientationMask.All.rawValue)
58         }
59     }
60
61     override func didReceiveMemoryWarning() {
62         super.didReceiveMemoryWarning()
63         // Release any cached data, images, etc that aren't in use.
64     }
65
66     override func prefersStatusBarHidden() -> Bool {
67         return true
68     }
69 }
```

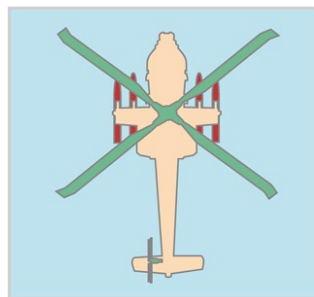
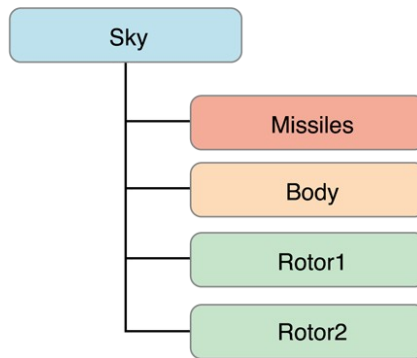
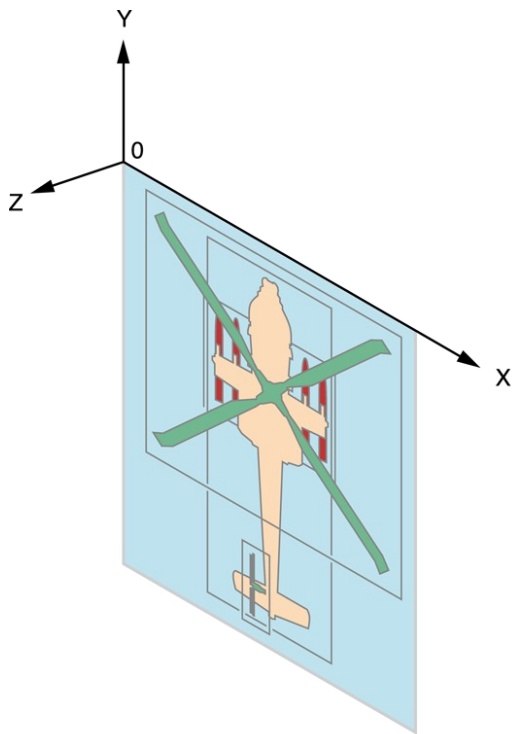
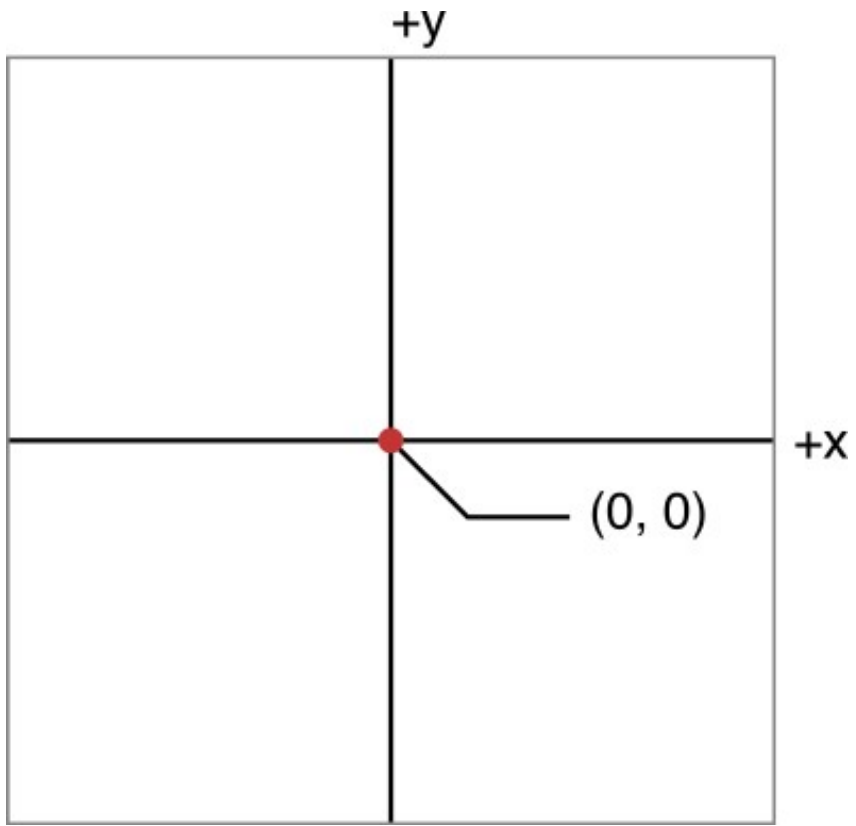
Quick Help

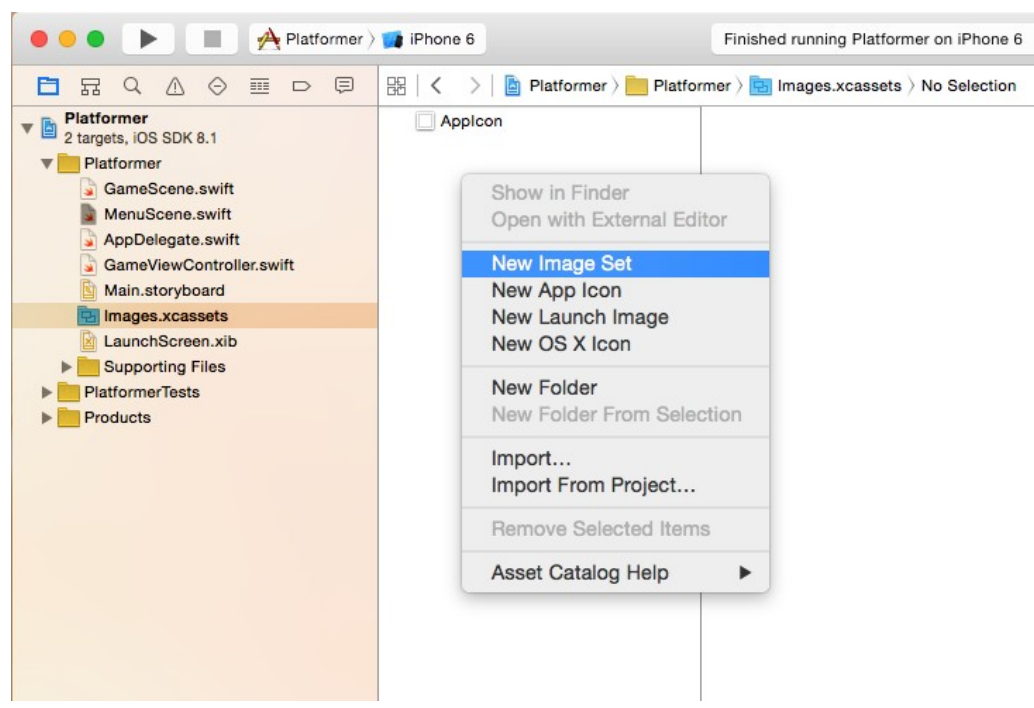
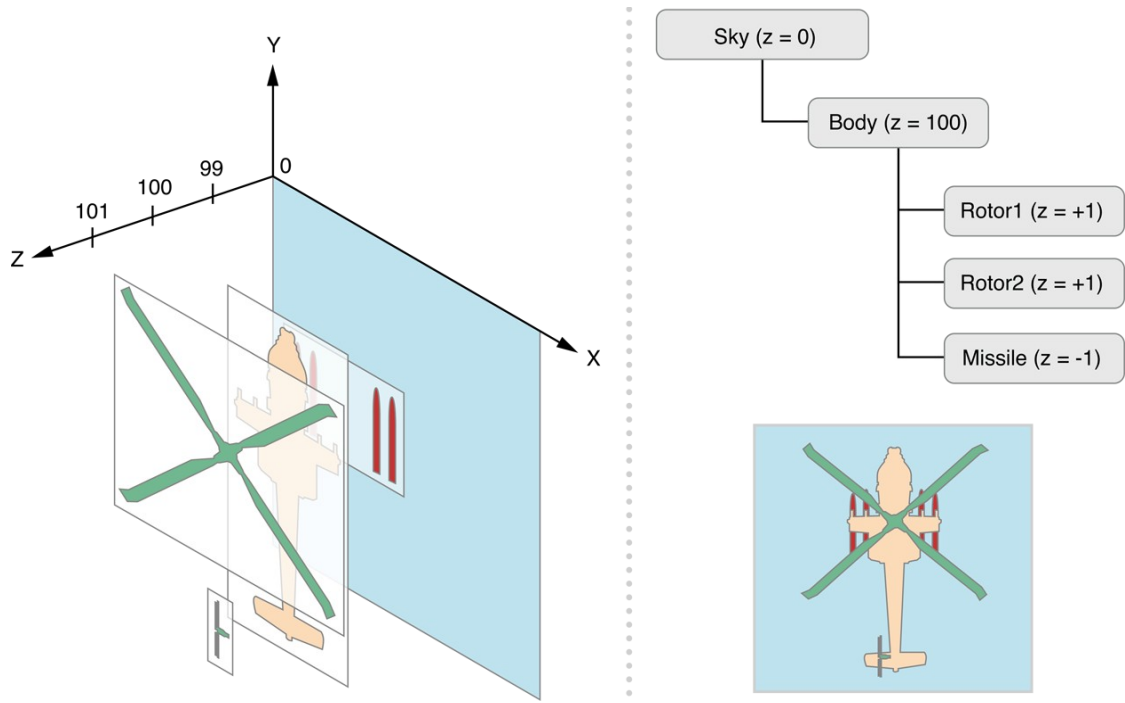
No Quick Help

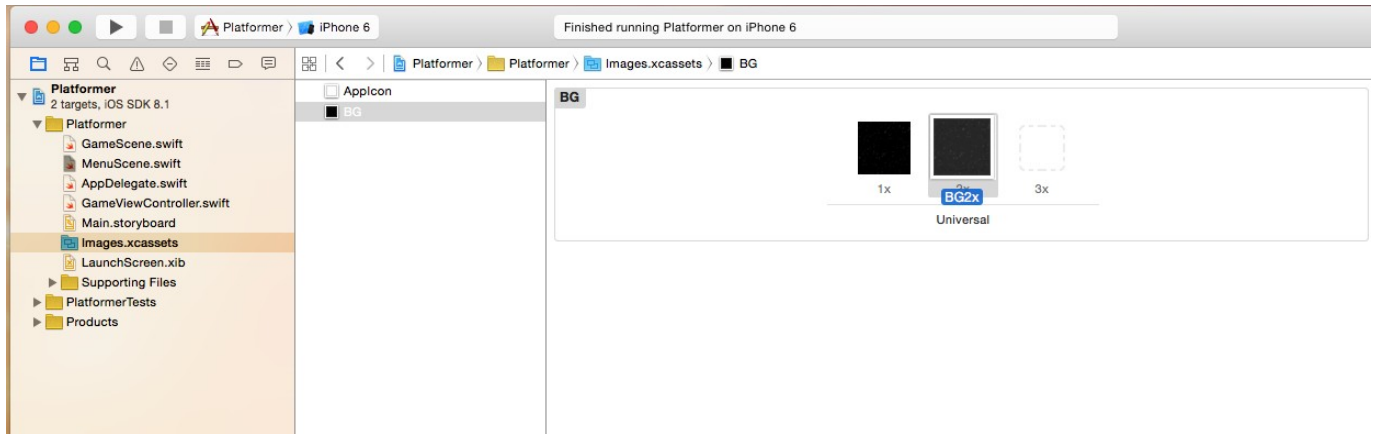
View Controller - A controller that supports the fundamental view-management model in iOS.

Navigation Controller - A controller that manages navigation through a hierarchy of views.

Table View Controller - A controller that manages a table view.

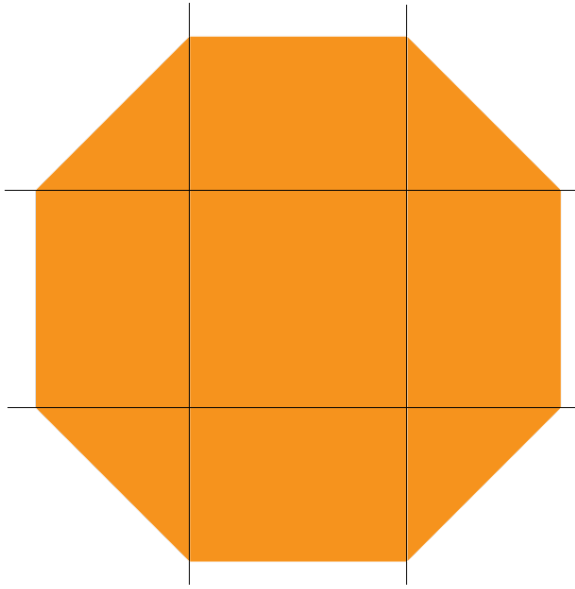




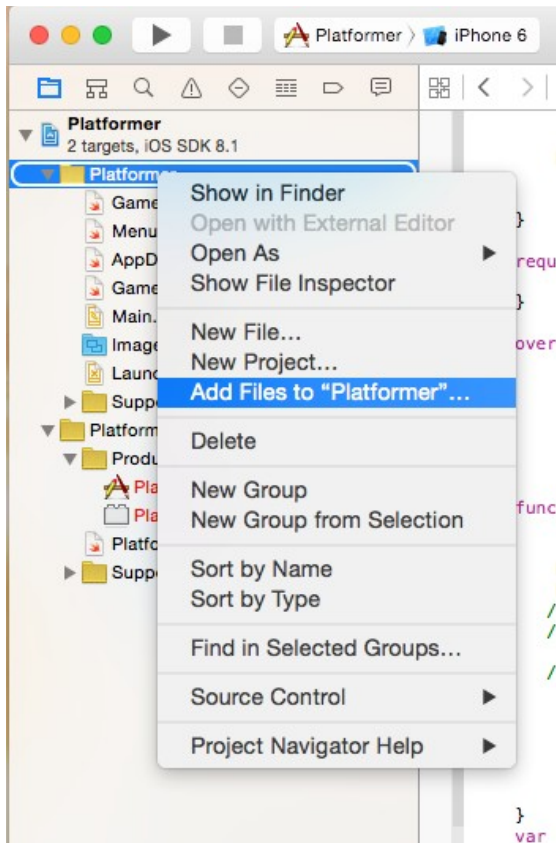
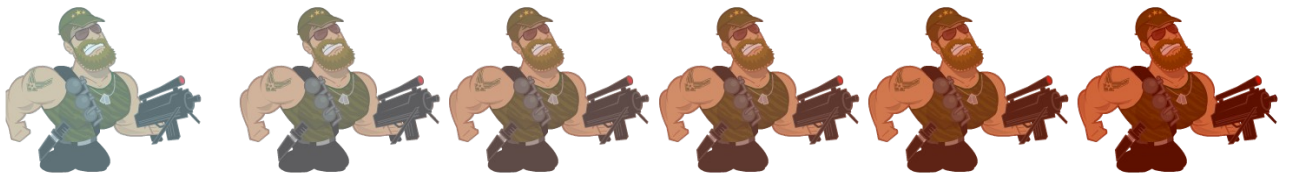


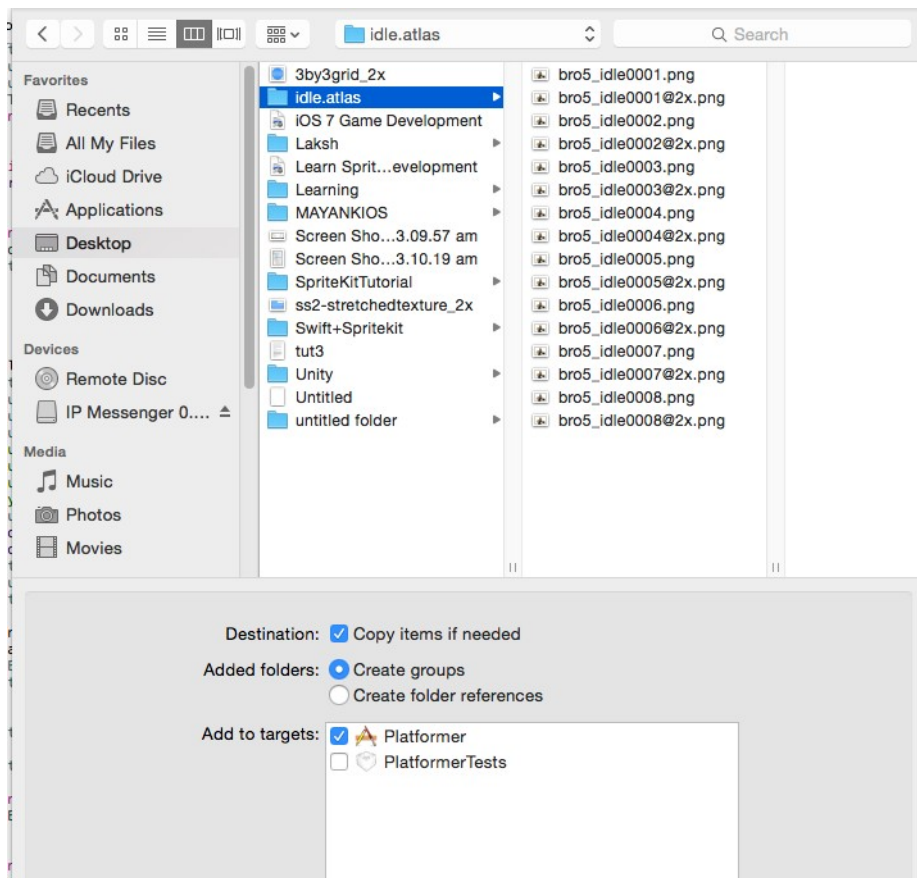
Chapter 3: Sprites











Chapter 4: Nodes in Sprite Kit

SKCropNode

SKLightNode

SKEmitterNode

SKShapeNode

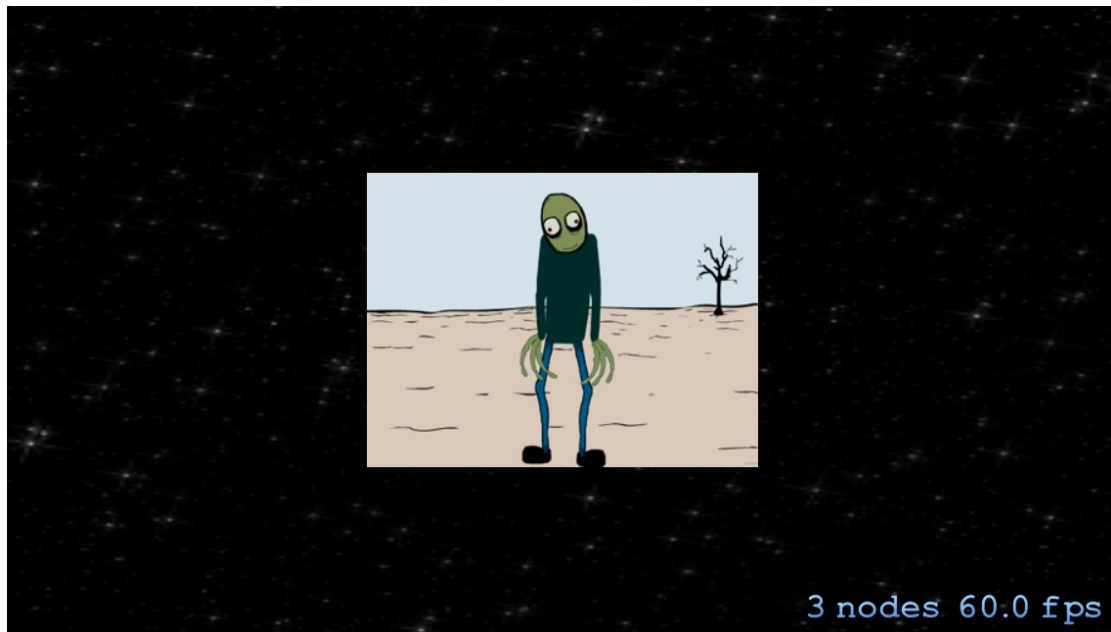
SKVideoNode
6 nodes 60.0 fps

PLAY

BACK

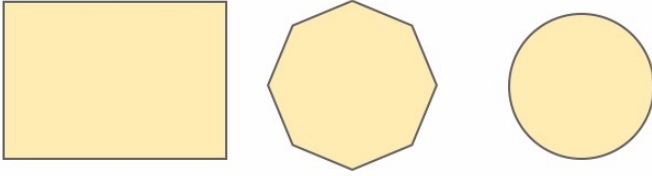
3 nodes 60.0 fps



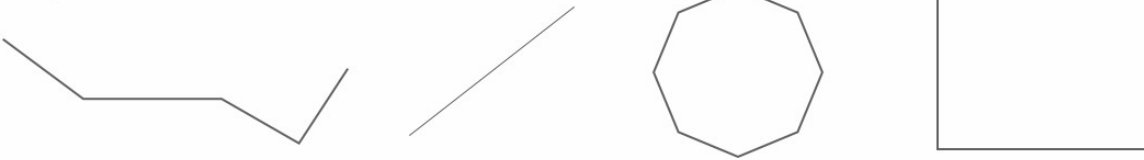


Physics in Sprite Kit

Volume-based



Edge-based



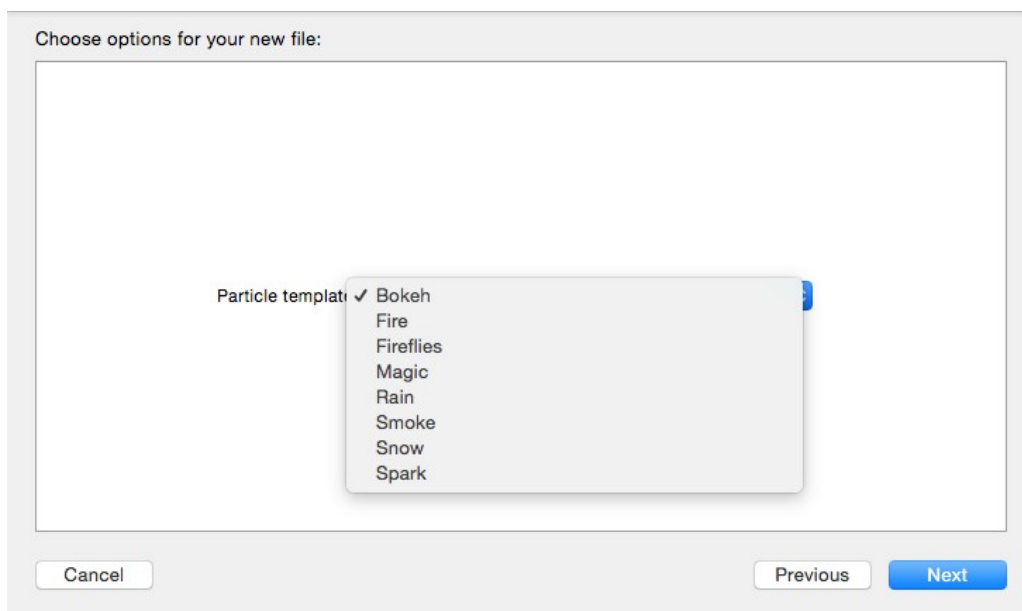
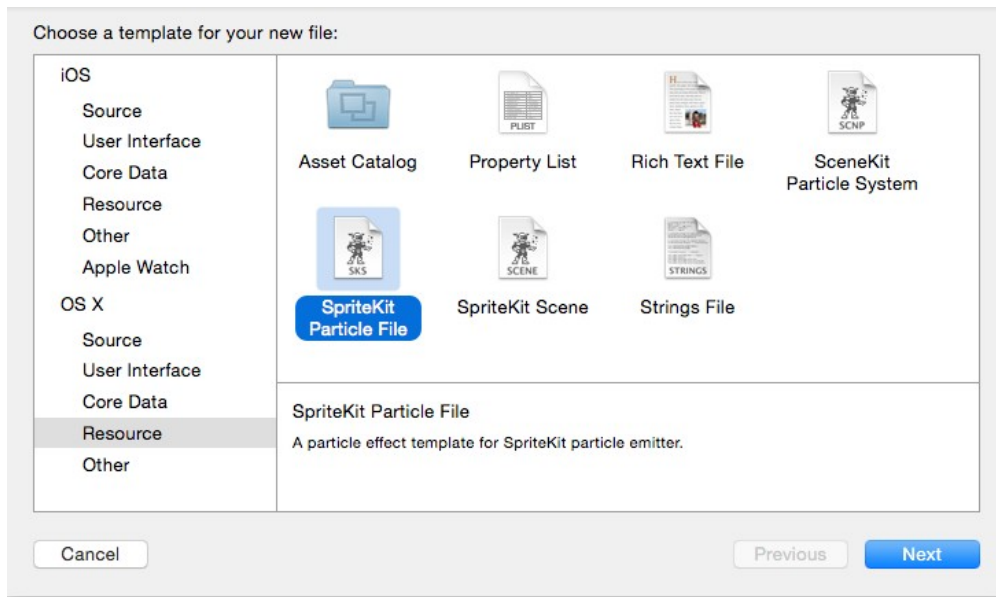


Chapter 6: Animating Sprites, Controls, and SceneKit





Chapter 7: Particle Effects and Shaders



SpriteKit Particle Emitter

Name

Background

Particle Texture

Particles Birthrate Maximum

Lifetime Start Range

Position Range X Y

Angle Start Range

Speed Start Range

Acceleration X Y

Alpha Start Range Speed

Scale Start Range Speed

Rotation Start Range Speed

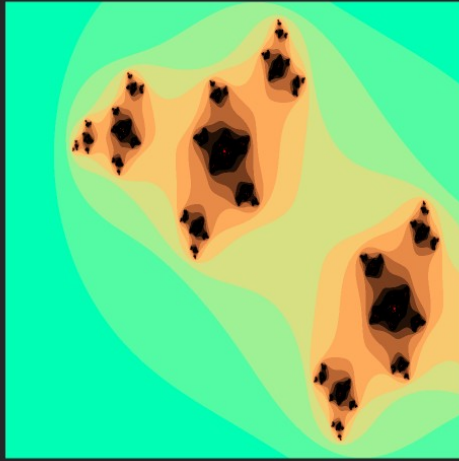
Color Blend Factor Range Speed

Color Ramp

Blend Mode

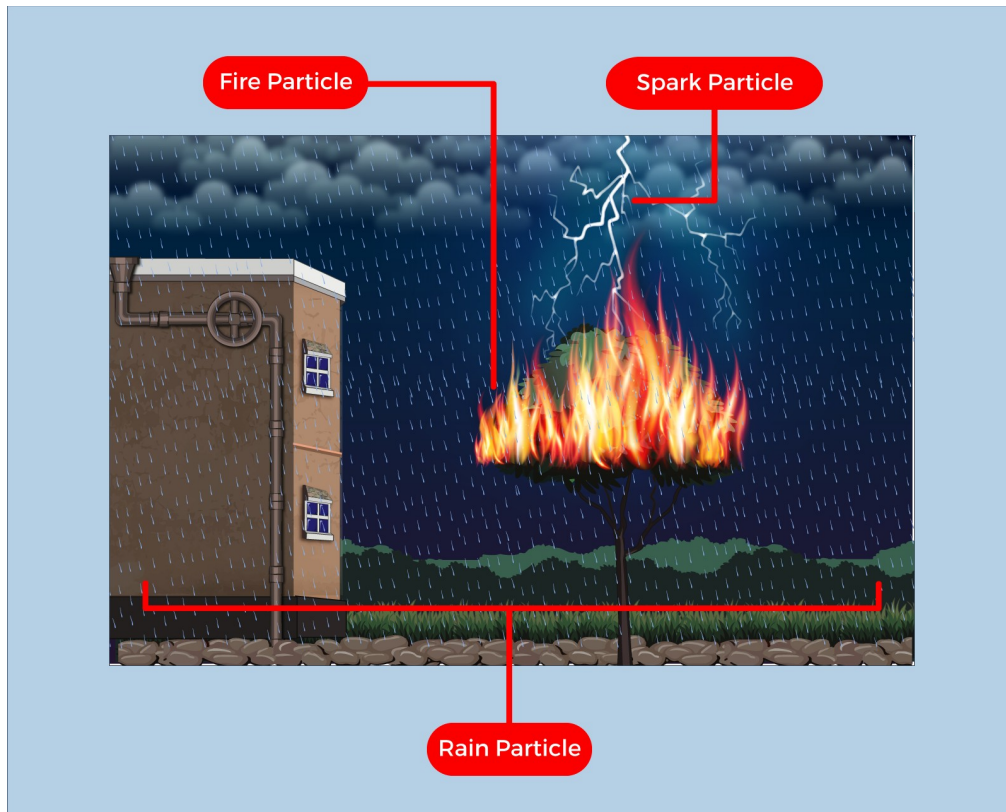
Field Mask

Custom Shader



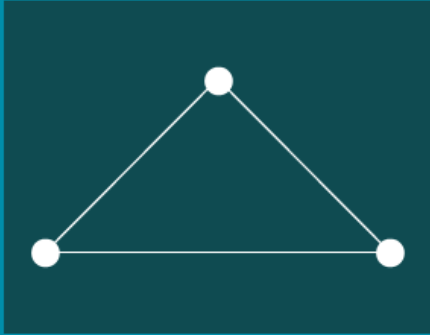
BACK

2 nodes 3.5 fps

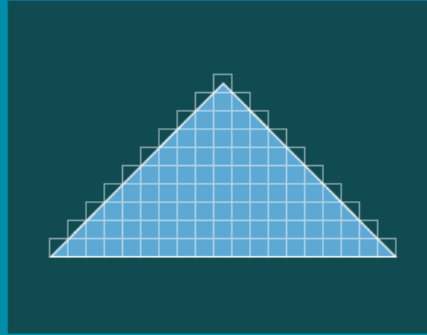


Shaders

Vertex Shader



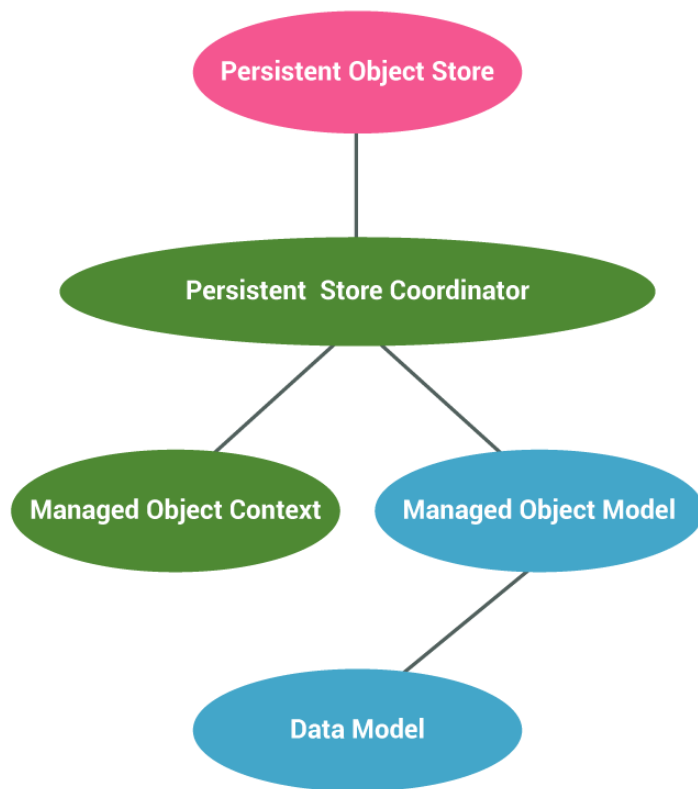
Pixel/Fragment Shader



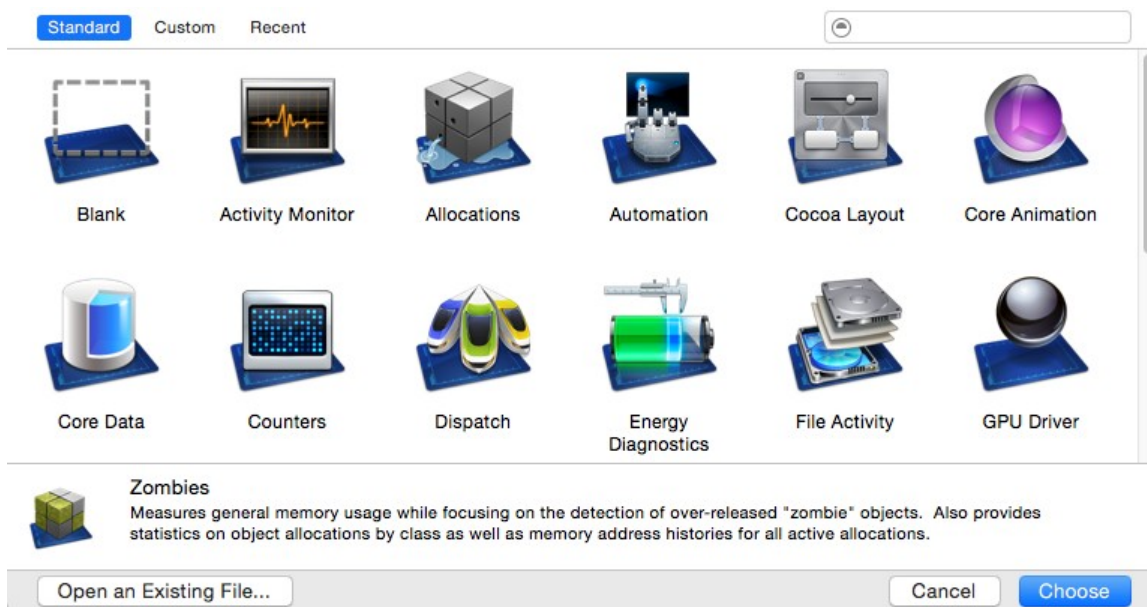
Chapter 8: Handling Multiple Scenes and Levels







Chapter 9: Performance Enhancement and Extras



Congratulations!!

Raj

ADD PLAYER

CANCEL

3 nodes 31.0 fps

High Scorer: Raj

The Score is: 20

MAIN MENU

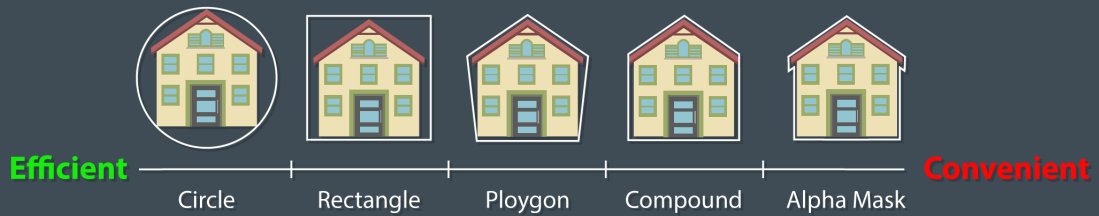
3 nodes 14.6 fps



PHYSICS NODE

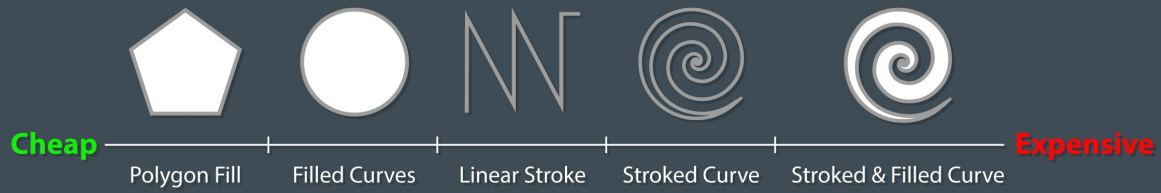
Pick the right shape

Different shapes have different costs



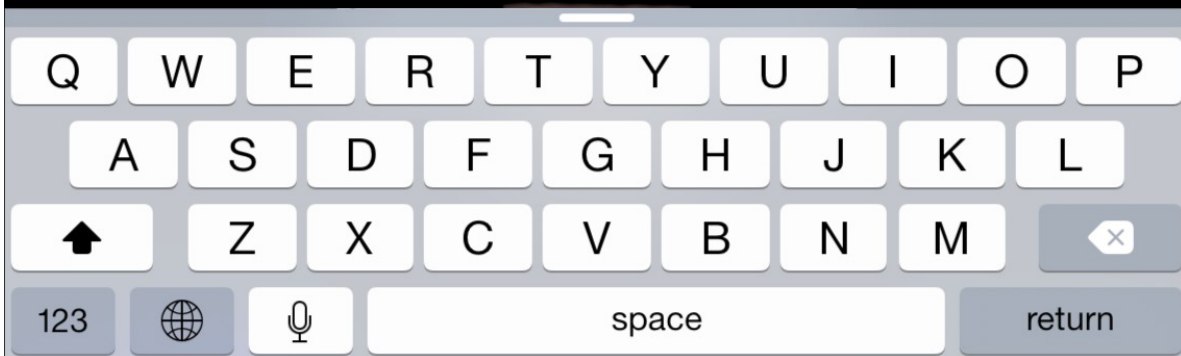
Pick the cheapest representation that serves your game

SHAPE NODE

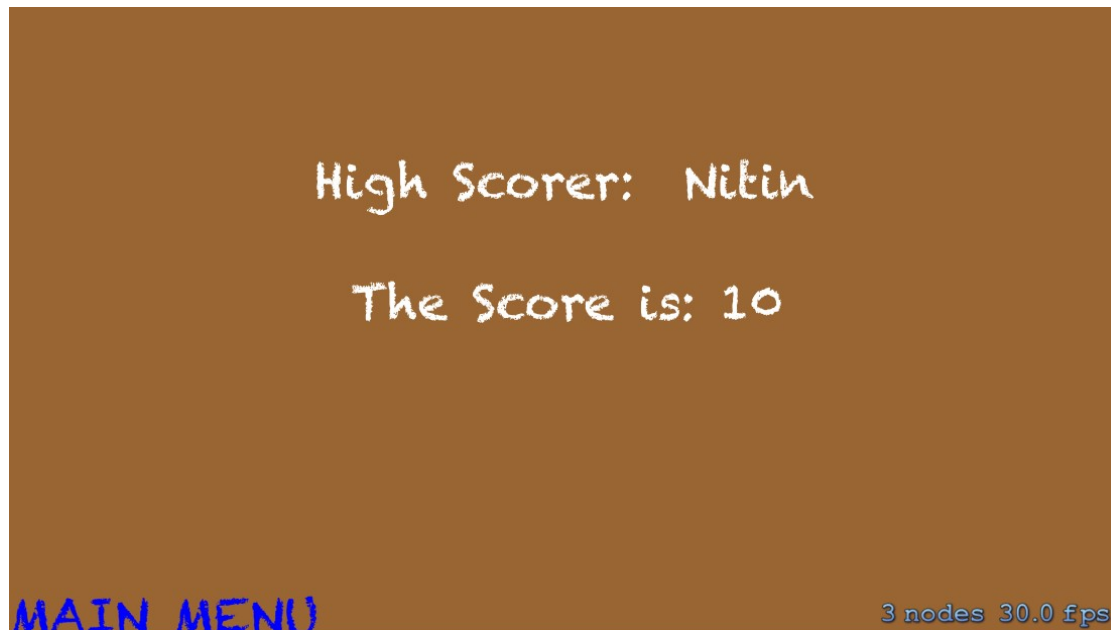


Congratulations!!

Please Enter the Player Name

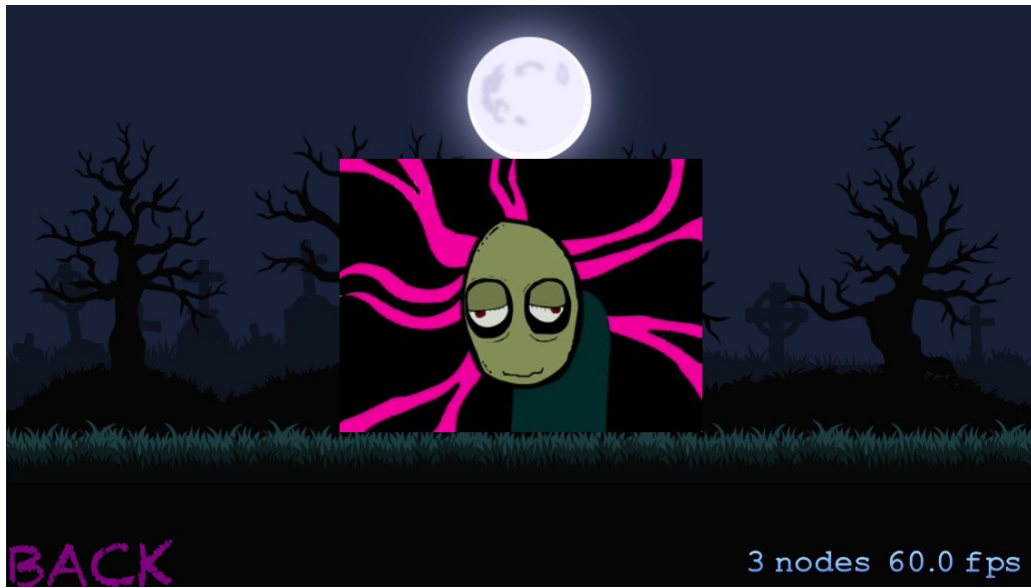
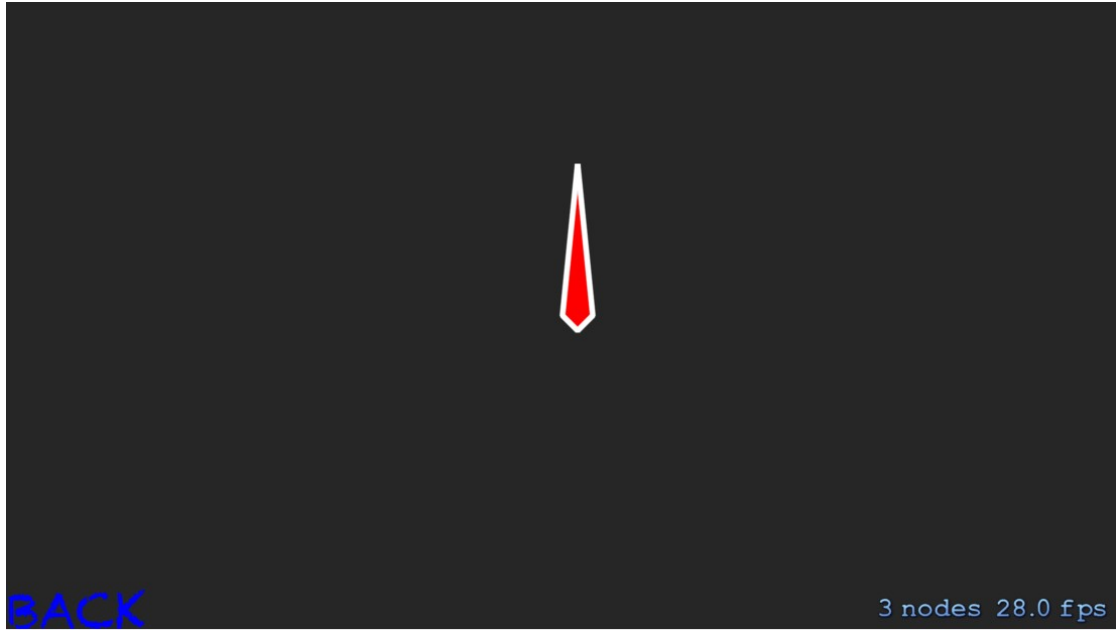


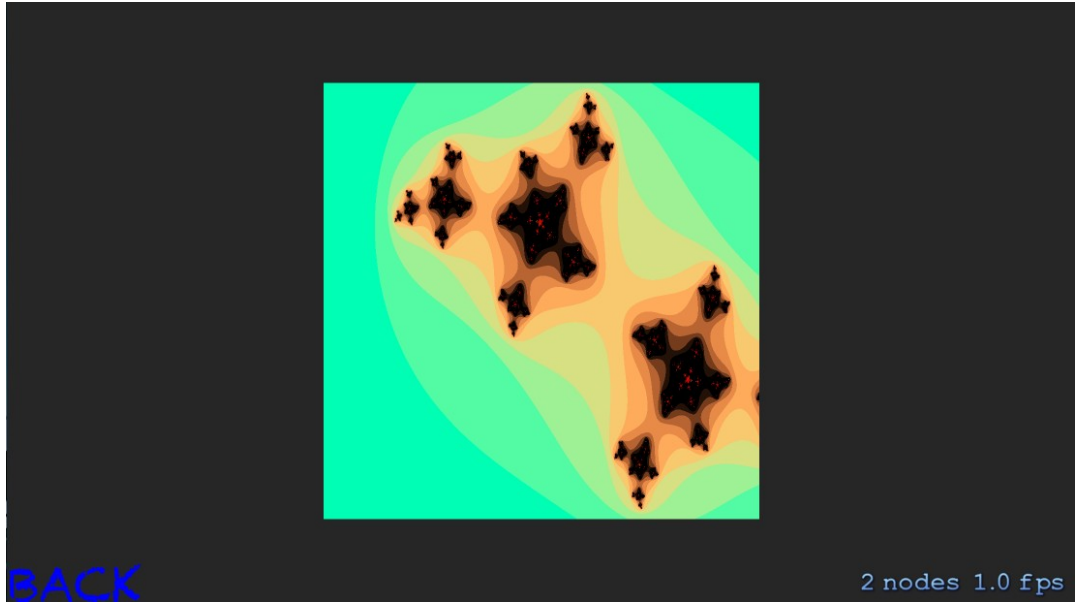
Chapter 10: Revisiting Our Game and More on iOS 9

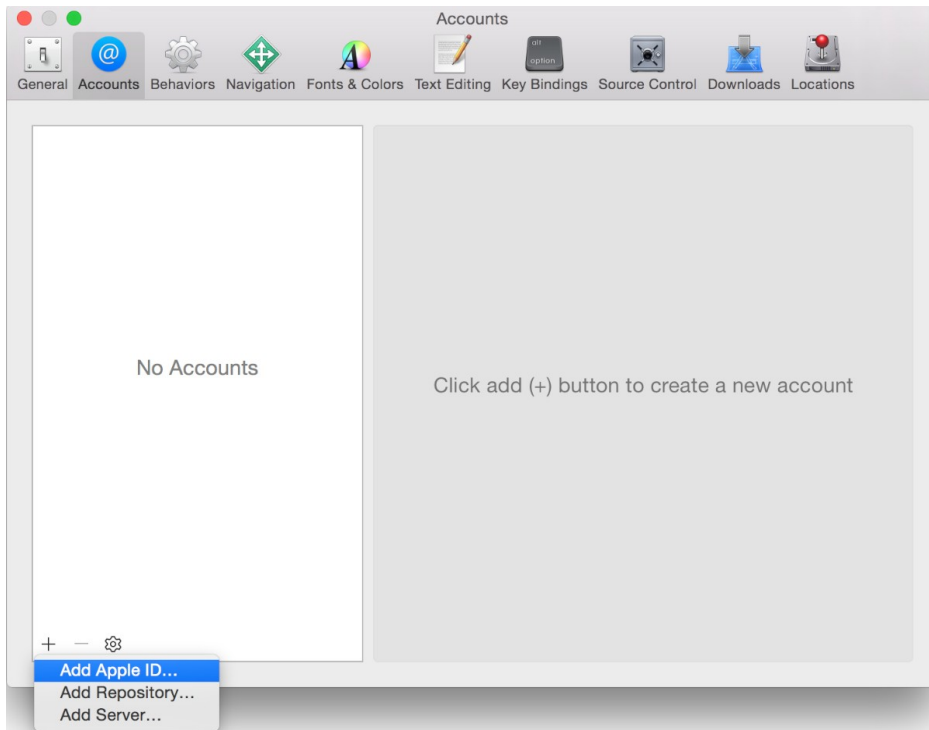
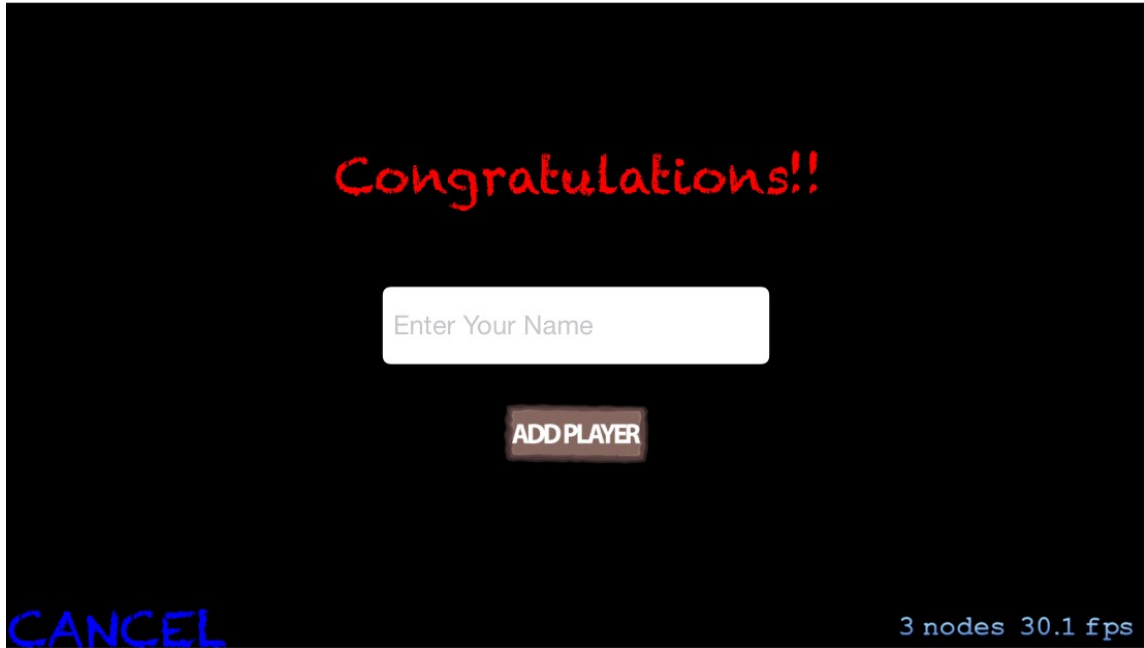


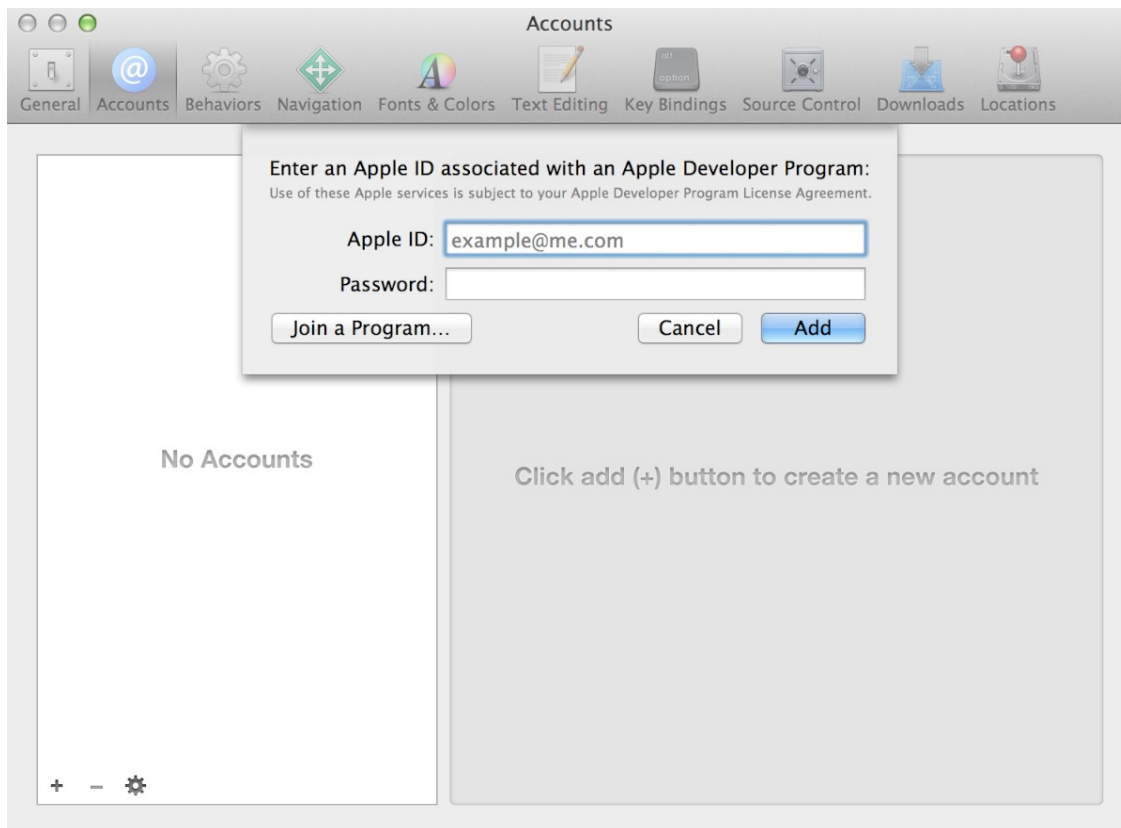
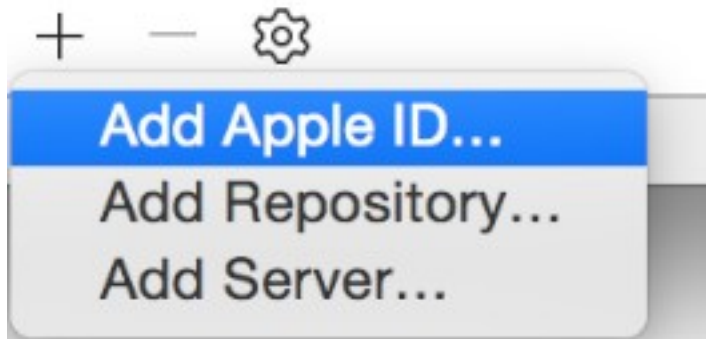


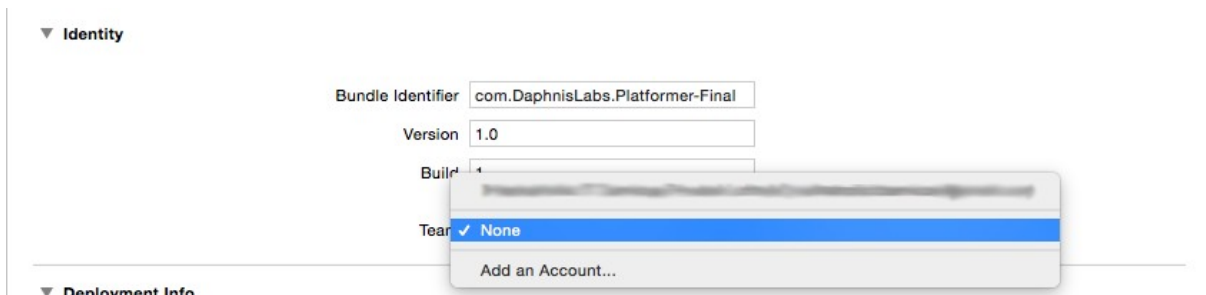
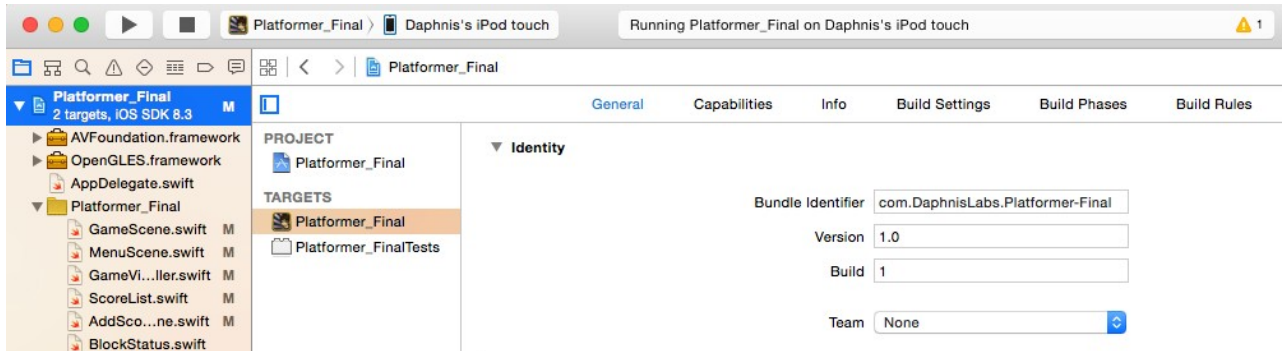
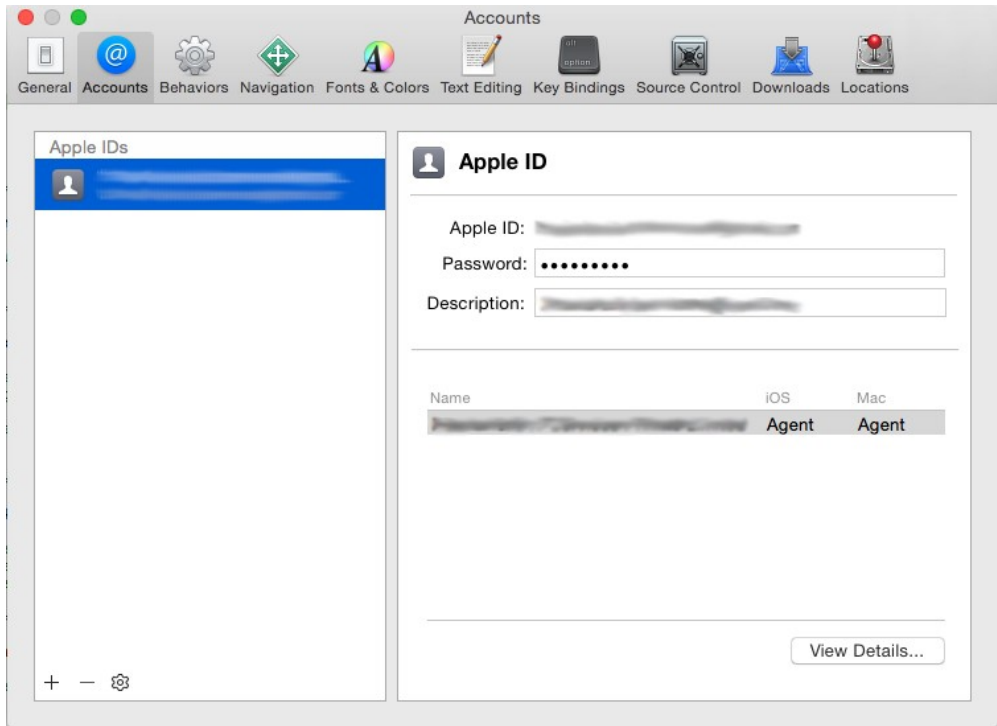














- PROJECT
Platformer_Final
- TARGETS
Platformer_Final
Platformer_FinalTests

▶ iCloud OFF

▼ Game Center OFF

Game Center allows a players to connect to the Game Center service, enabling them to interact with their friends, view leader boards, or play head to head in your game.

Turning on Game Center will...

- Add the "Game Center" entitlement to your App ID
- Link GameKit.framework
- Add the "GameKit" key to your info plist file



+

New iOS App

New iOS App

Company Name ?

Test

Name ?

Platformer

Version ?

1

Primary Language ?

English

SKU ?

platformer.test

Bundle ID ?

FitNut - com.fitnut.FitNut

Register a new bundle ID on the [Developer Portal](#).

Cancel

Create

[< My Apps](#)



FitNut - com.fitnut.FitNut

iOS

1.0 Prepare for Submission

Versions

[Prerelease](#)

[Pricing](#)

[In-App Purchases](#)

[Game Center](#)

[Reviews](#)

[Newsstand](#)

[More](#) ▾

1.0

Save

Submit for Review

Version Information

English ▾

App Video Preview and Screenshots ?

4.7-inch

5.5-inch

4-inch

3.5-inch

iPad

Enable Game Center

To add Game Center to your app binary, you must include the feature in the Game Kit framework. You can start by enabling Game Center for a single game or a group of games. Both options enable multiplayer features including compatibility across multiple apps.



Single Game

Select this option if your app has its own set of leaderboards and achievements.

[Enable for Single Game](#)



Group of Games

Select this option if this app shares leaderboards and achievements with other apps you have provided.

[Enable for Group Games](#)

Leaderboards

Leaderboards allow users to view the top scores of all Game Center players of your app. Leaderboards that are live for any app version cannot be removed.

[Add Leaderboard](#)

[Delete Test Data](#)



0 Leaderboards

Reference Name	Leaderboard ID	Type	Default	Status
Click Add Leaderboard to get started.				

Achievements

An achievement is a distinction that a player earns for reaching a milestone, or performing an action, defined by you and programmed into your app. Once an achievement has gone live for any version of your app, it cannot be removed.

[Add Achievement](#)

0 Achievements

Reference Name	Achievement ID	Points	Status
Click Add Achievement to get started.			