

# 1

## All About Cocos2D

### Games created with Cocos2D





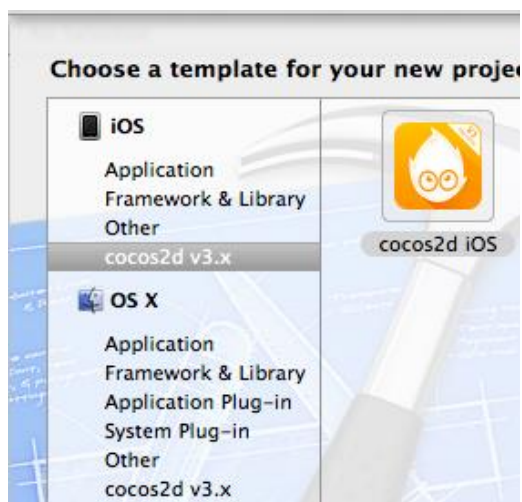
# 2

## Hello Cocos2D

### Integrating Cocos2D with Xcode



### Creating a Hello World project



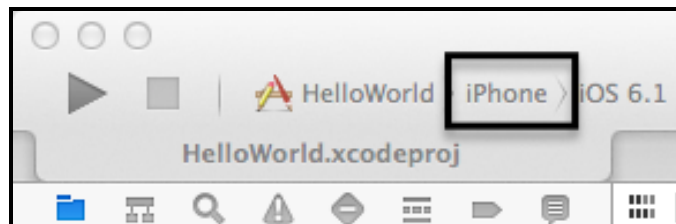
Product Name HelloWorld

Organization Name Packt Publishing

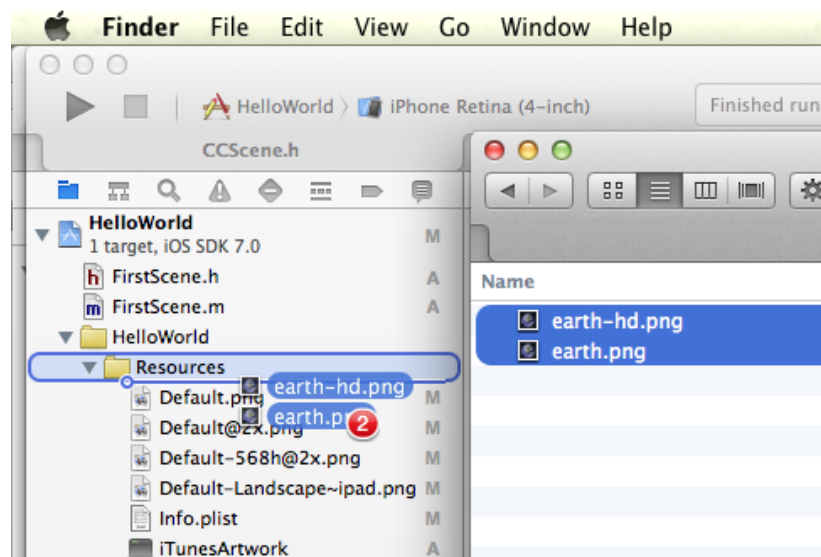
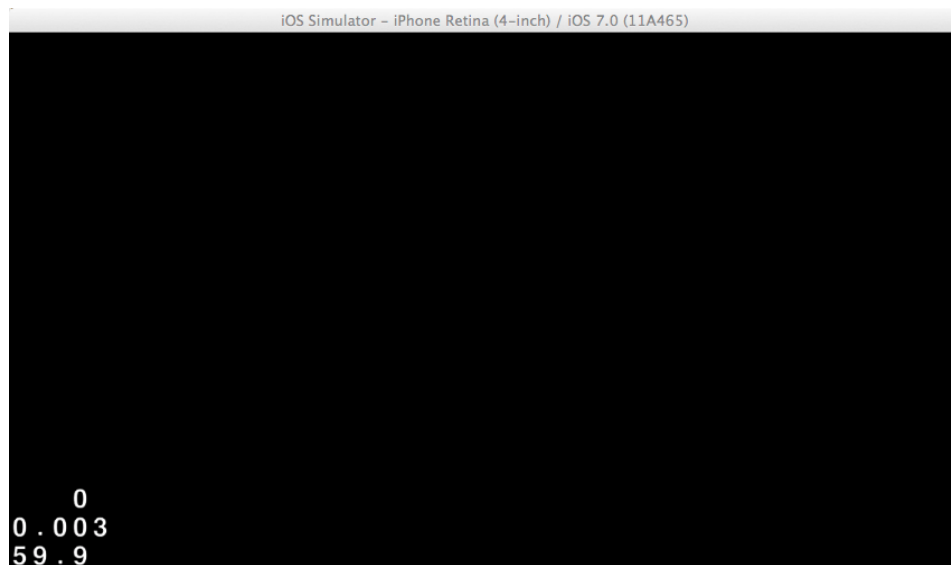
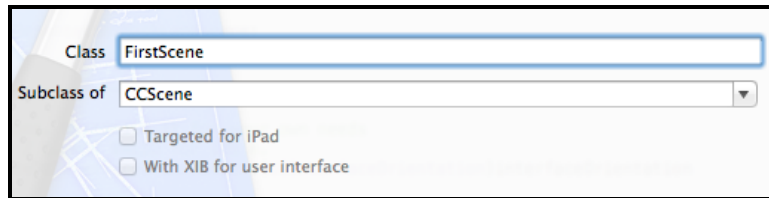
Company Identifier com.packtpub

Bundle Identifier com.packtpub.HelloWorld

Device Family iPhone



## Modifying the project



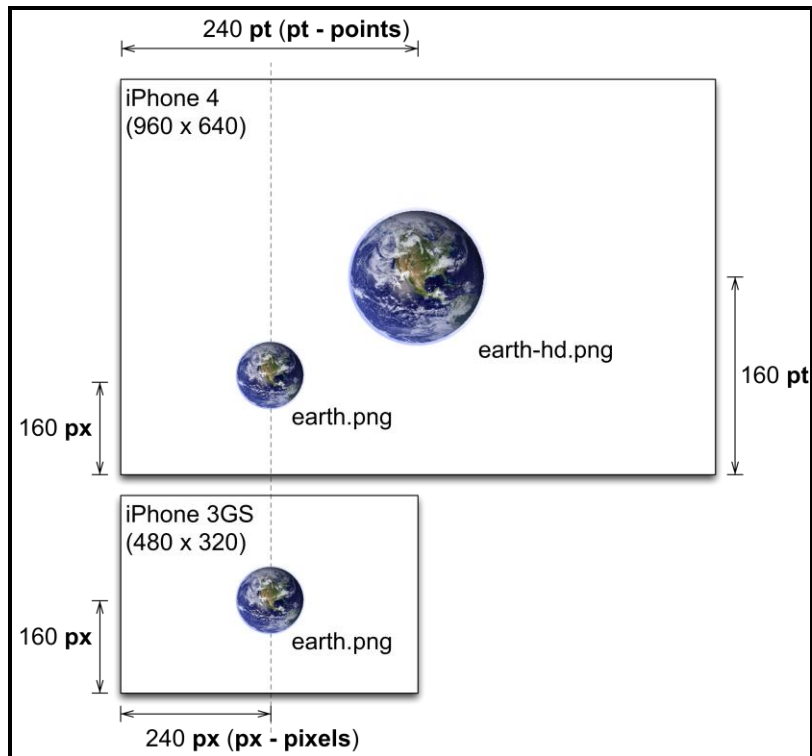
**Choose options for adding these files**

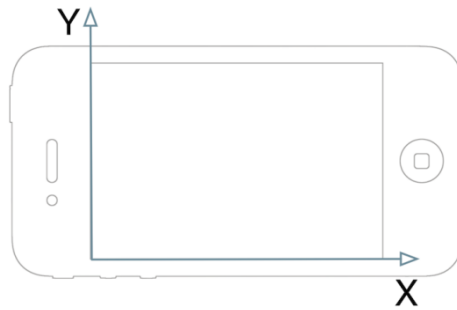
Destination  Copy items into destination group's folder (if needed)

Folders  Create groups for any added folders  
 Create folder references for any added folders

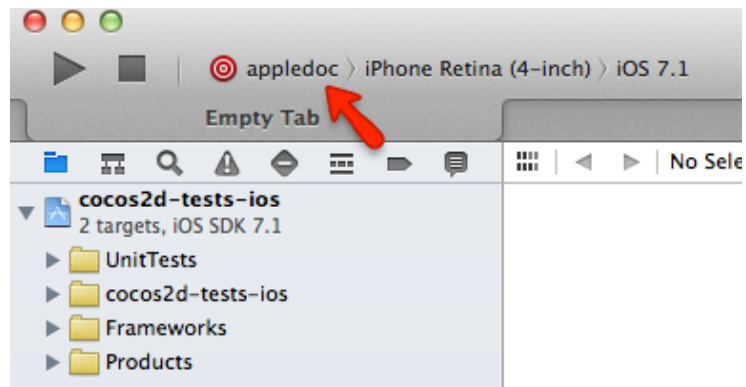
Add to targets  🚩 HelloWorld

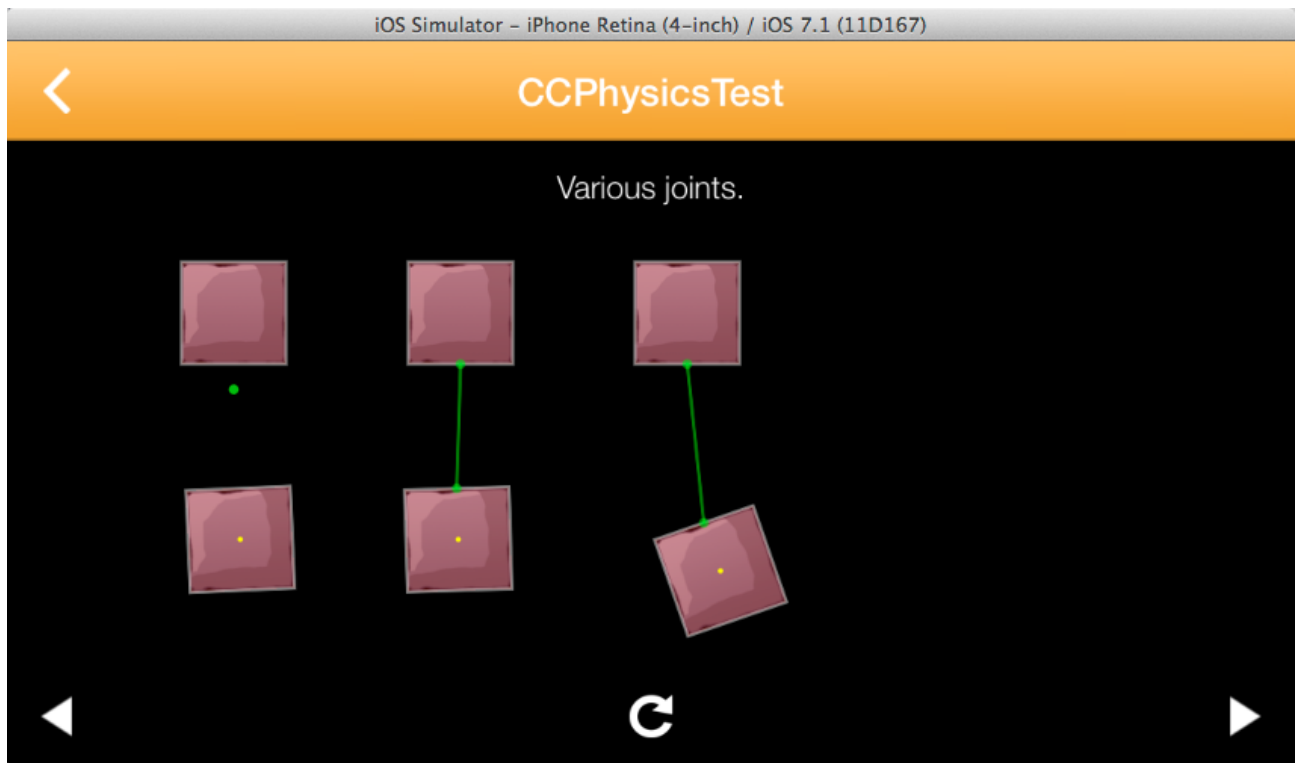
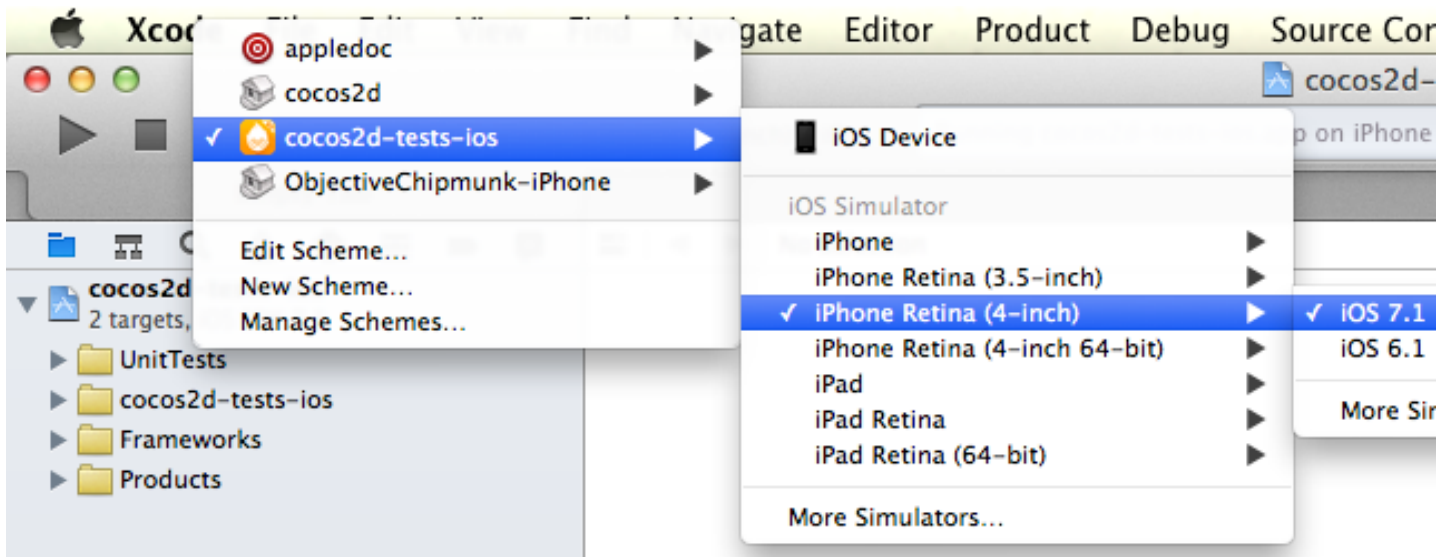
iOS Simulator - iPhone Retina (4-inch) / iOS 7.0 (11A465)





## Reviewing Cocos2D distribution



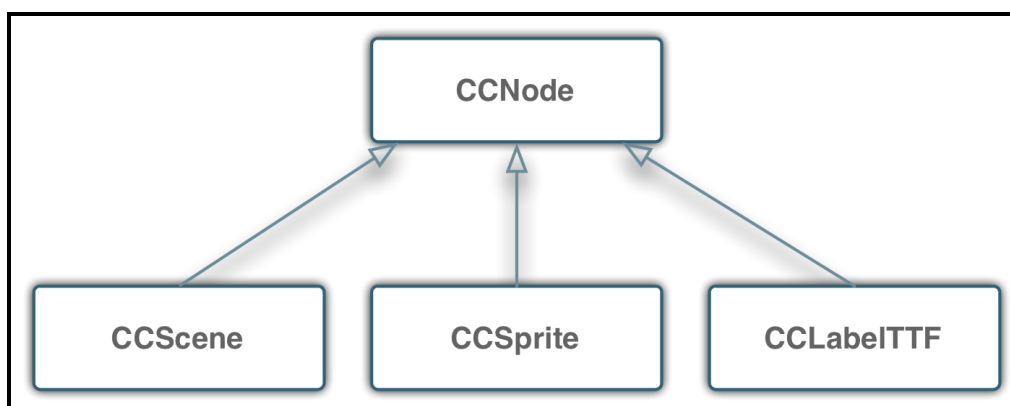




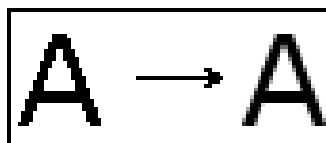
# 3

## Cocos2D – Under the Hood

### Reviewing Cocos2D



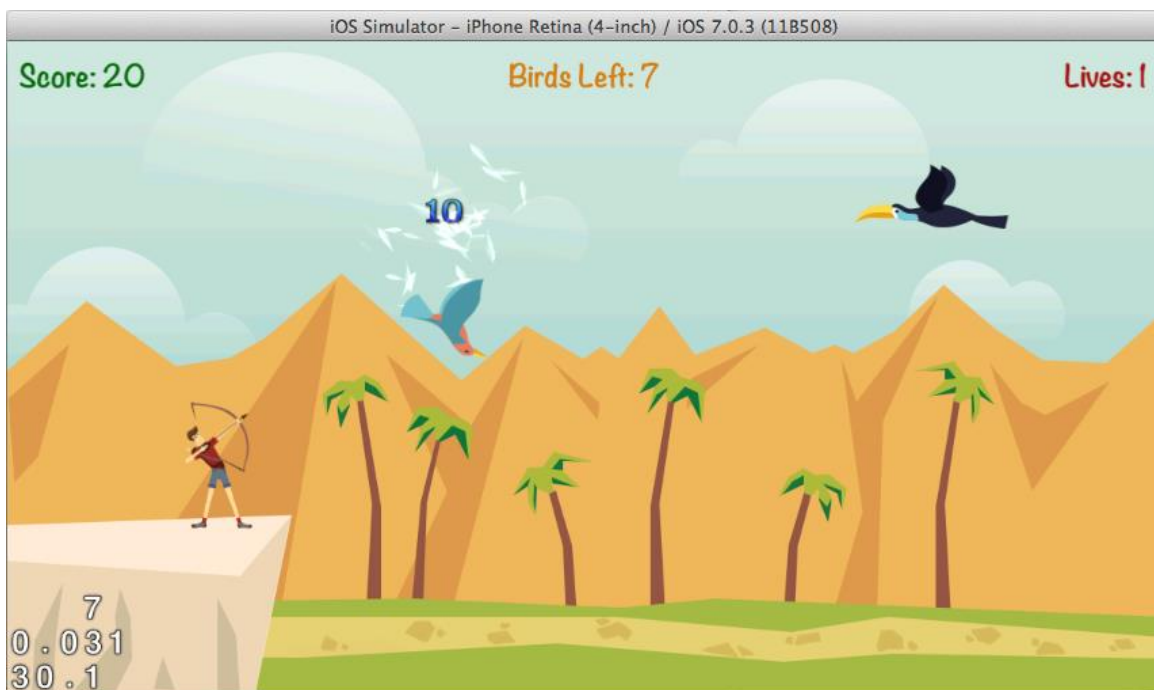
2  
0.008  
60.0

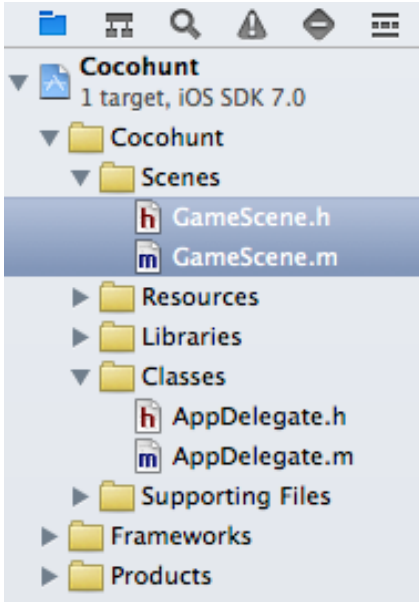
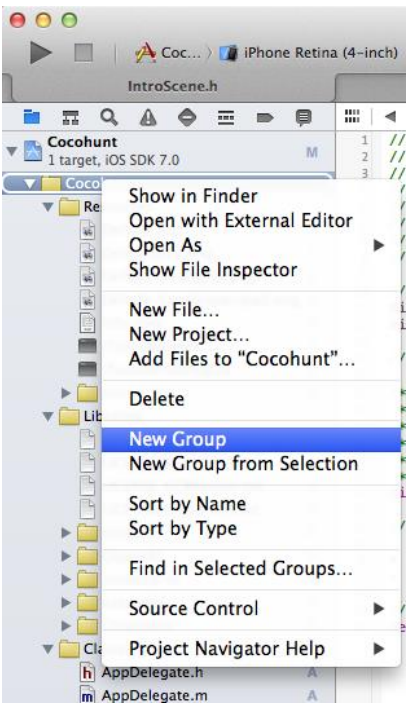


# 4

## Rendering Sprites

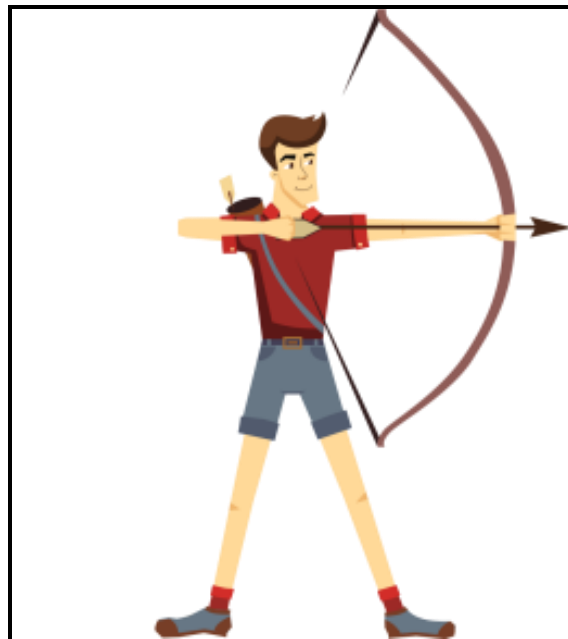
### Creating the game project

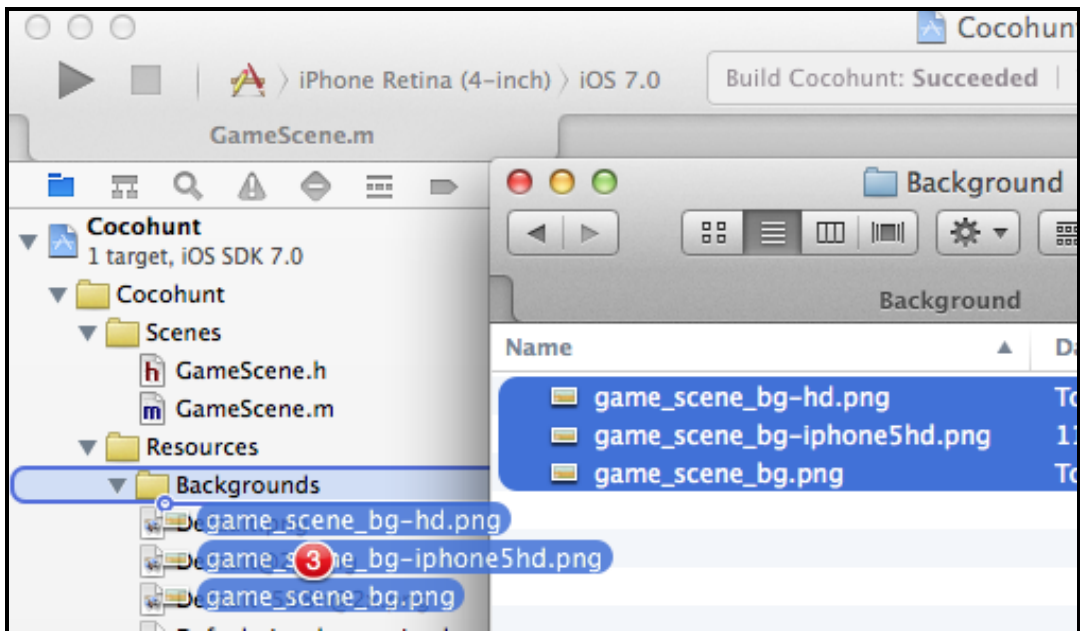


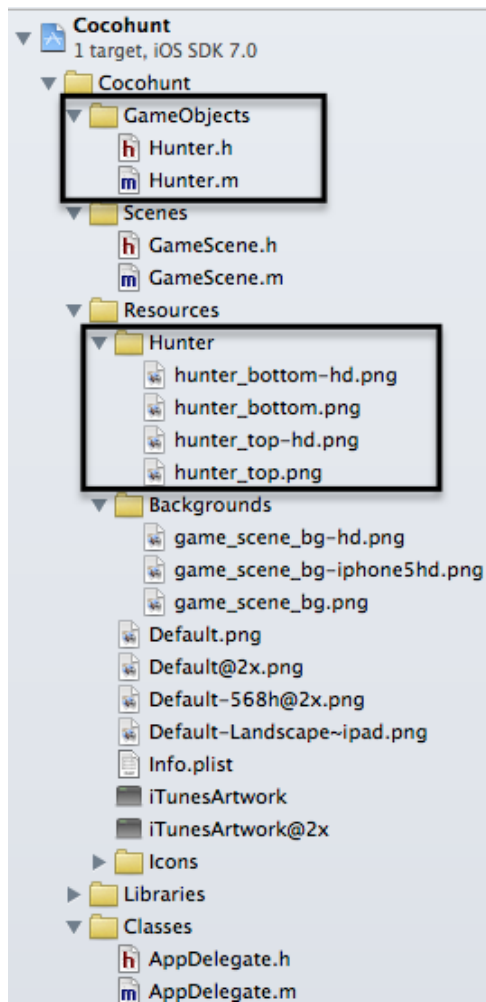


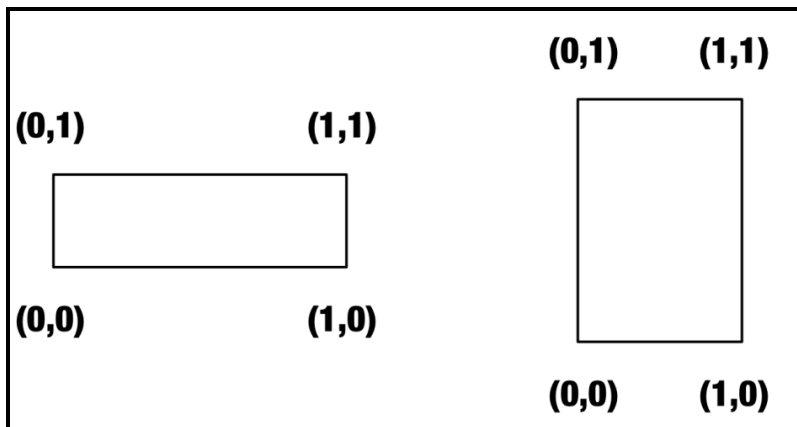
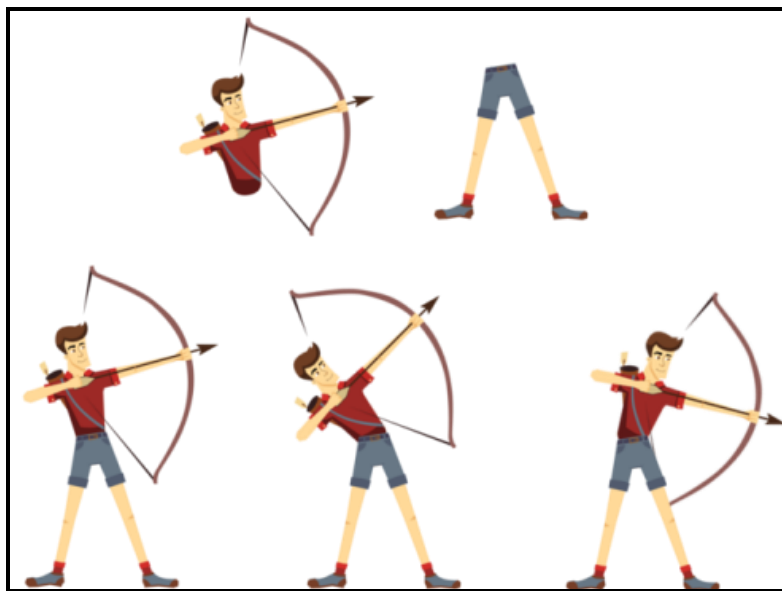
0  
0.004  
60.1

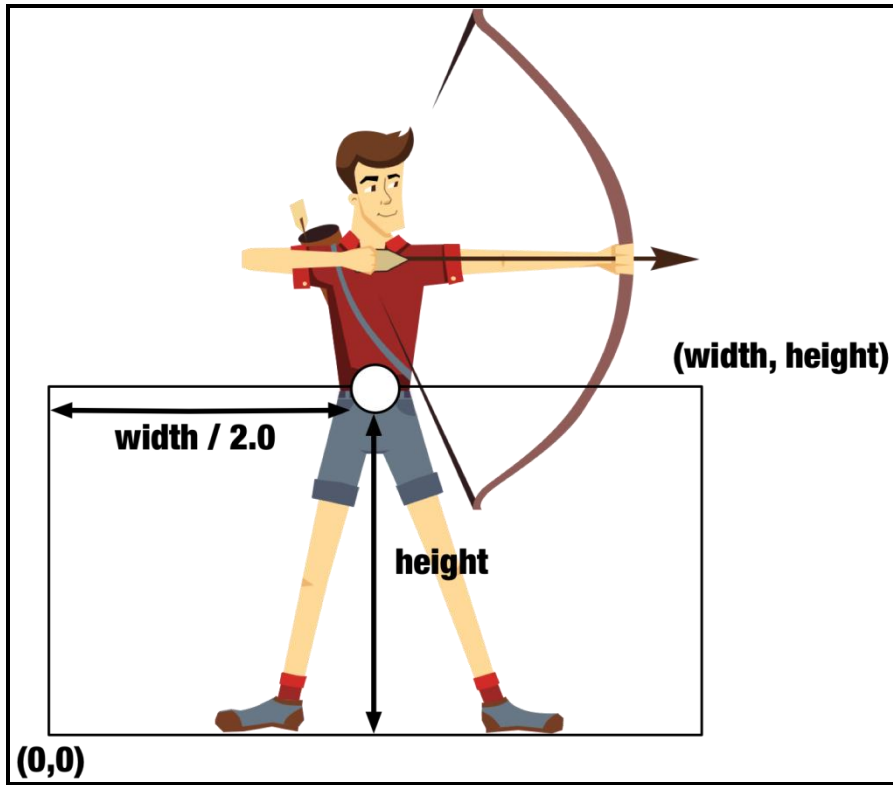
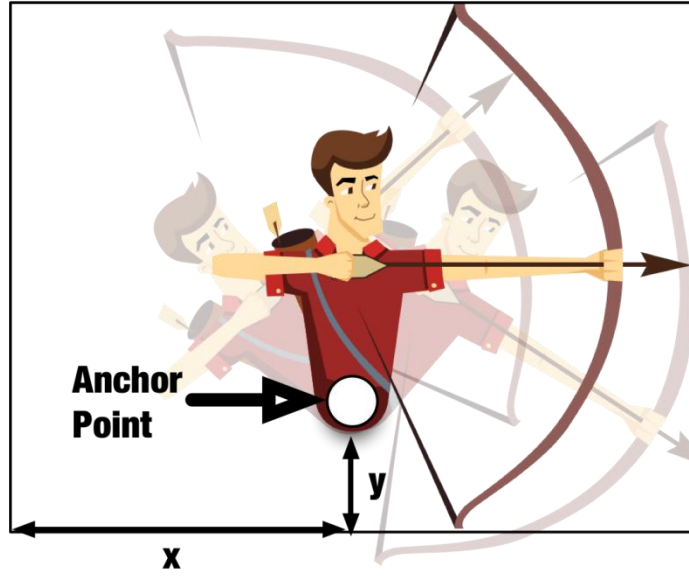
## Adding sprites to your game





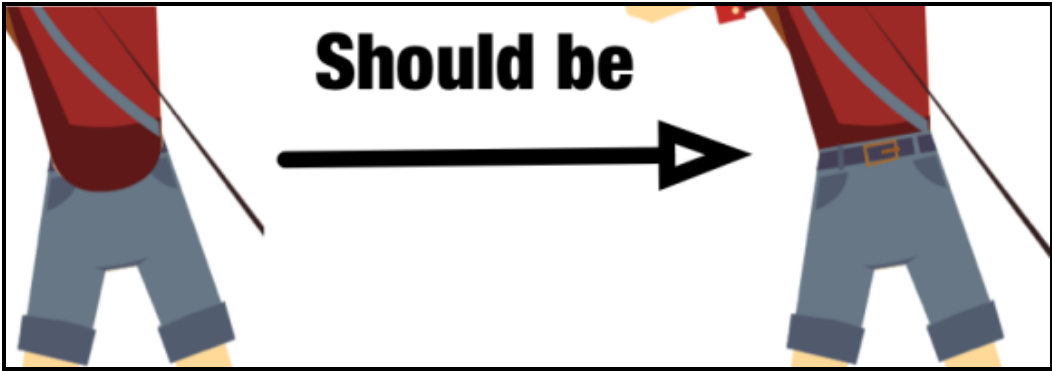
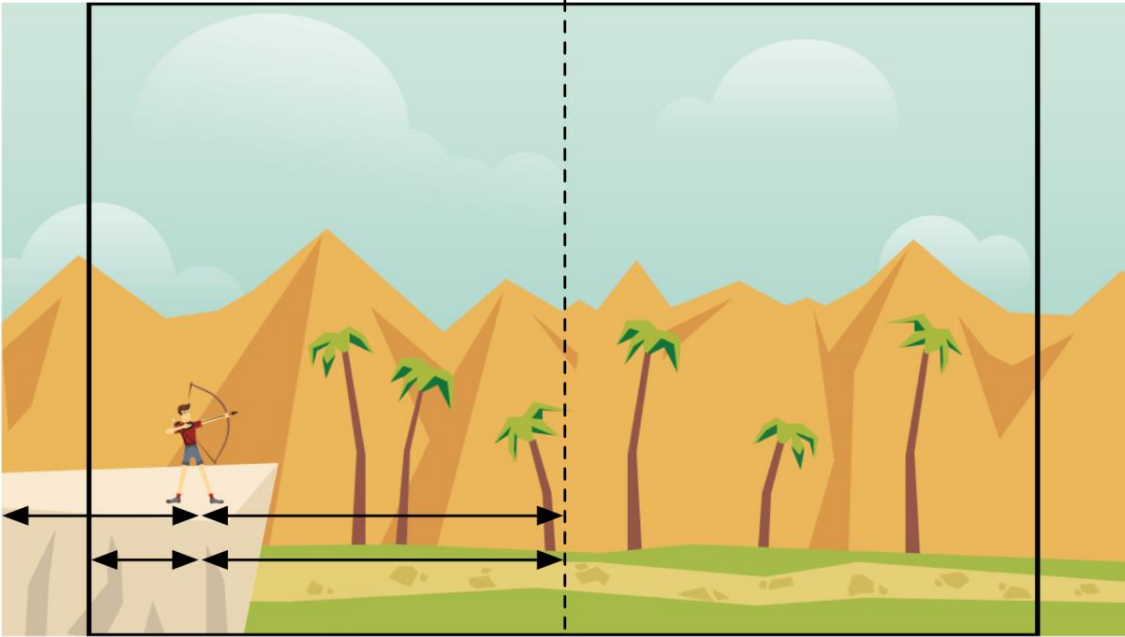




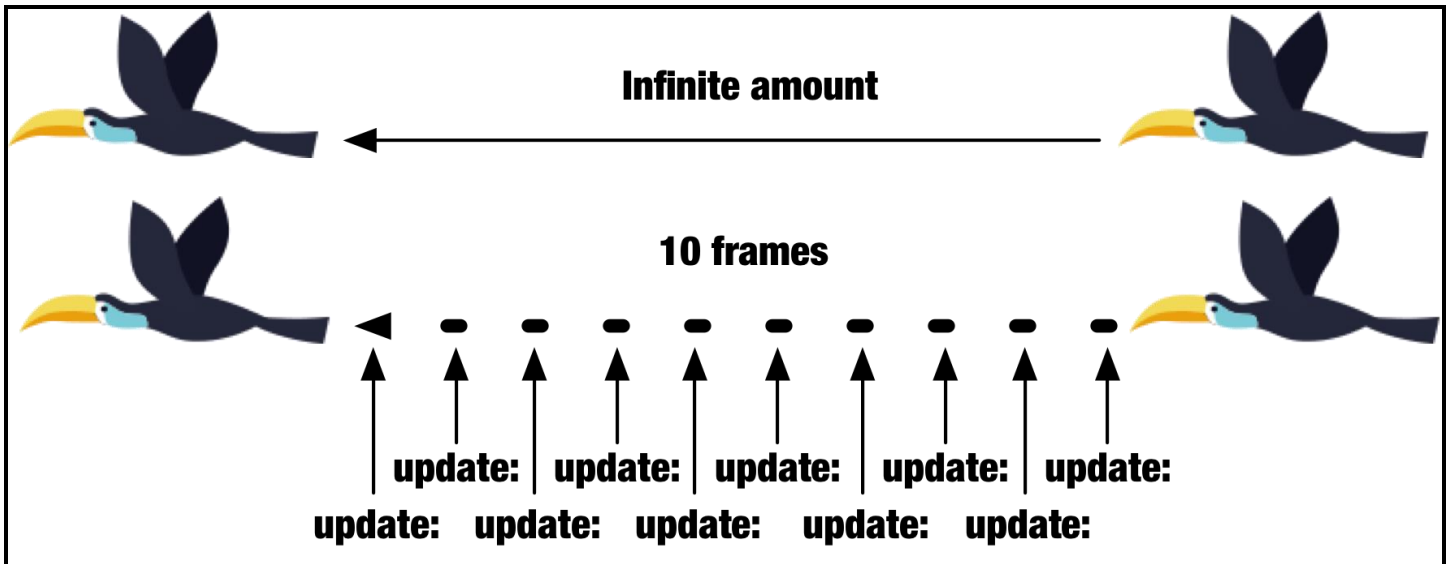


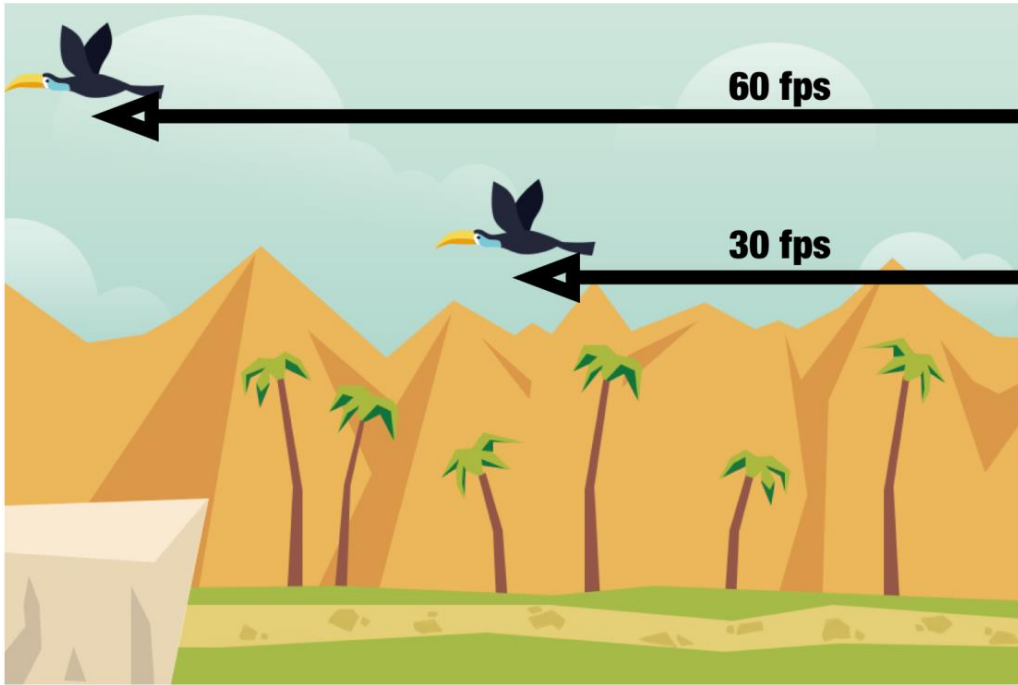


Center

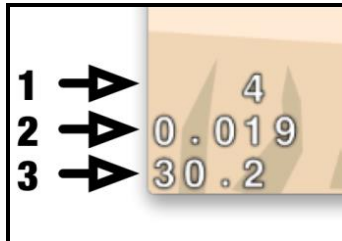


## Adding more sprites and moving them

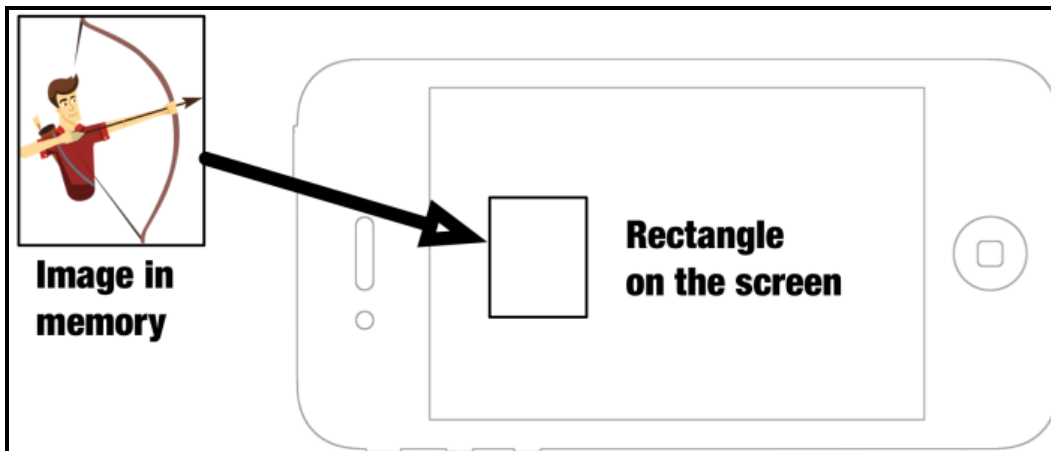


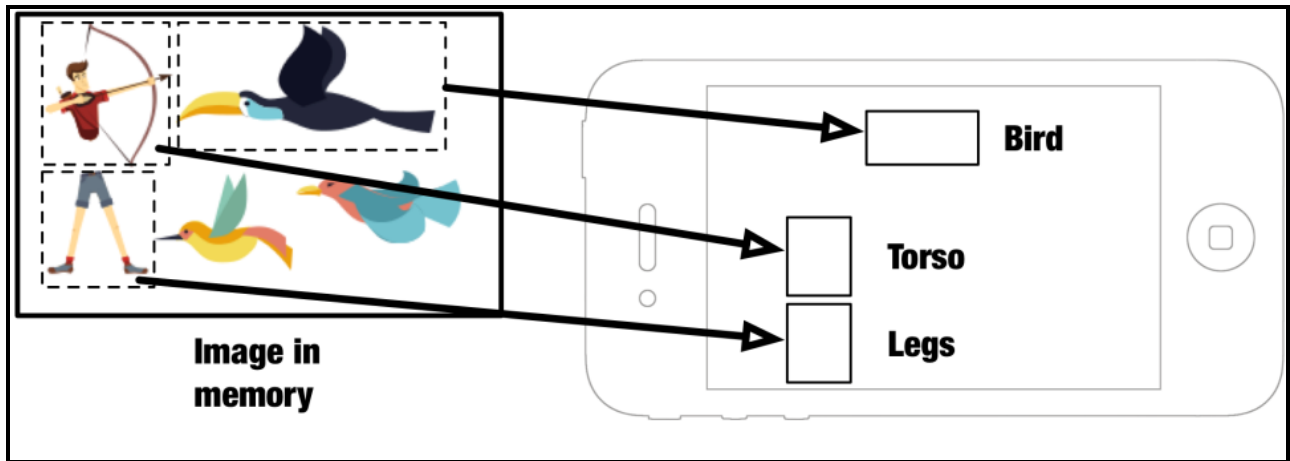


### Understanding debug FPS labels



### Spritesheets and animation





TextureSettings

100%, -hd 50%

Sprites

**Output**

Data Format: cocos2d

Data file: [ ]

Texture format: PNG (.png)

Texture file: [ ]

Png Opt Level: none

DPI: 72

Premultiply alpha:

Image format: RGBA8888

Dithering: NearestNeighbour

AutoSD:

Content protection:

**Geometry**

Max size W: 2048 H: 2048

Fixed size W: [ ] H: [ ]

Size constraints: POT (Power of 2)

Force squared:







Force word aligned:

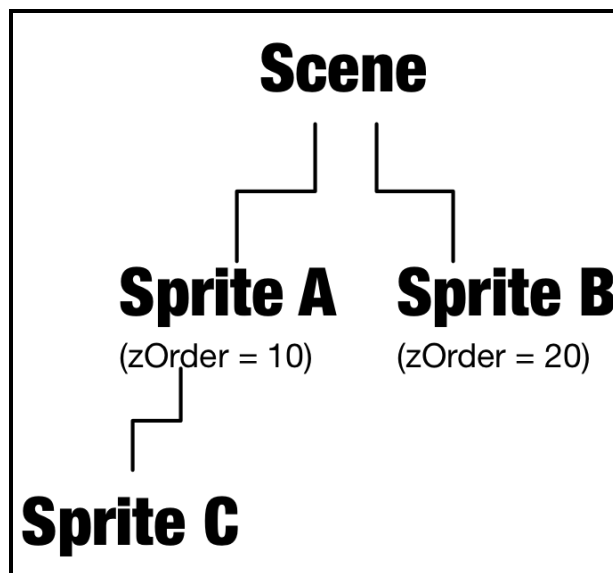
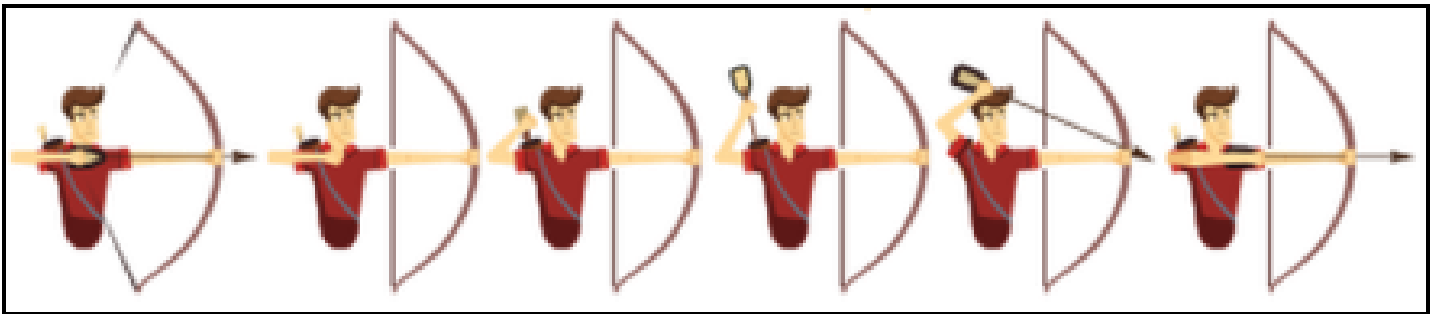
**Sprites**

- arrow.png
- bird\_big\_0.png
- bird\_big\_1.png
- bird\_big\_2.png
- bird\_big\_3.png
- bird\_big\_4.png
- bird\_big\_5.png
- bird\_big\_6.png
- bird\_middle\_0.png
- bird\_middle\_1.png
- bird\_middle\_2.png
- bird\_middle\_3.png
- bird\_middle\_5.png
- bird\_middle\_6.png
- bird\_small\_0.png
- bird\_small\_1.png
- bird\_small\_2.png
- bird\_small\_3.png
- bird\_small\_4.png
- bird\_small\_5.png
- bird\_small\_6.png
- hunter\_bottom.png
- hunter\_top\_0.png
- hunter\_top\_1.png
- hunter\_top\_2.png
- hunter\_top\_3.png
- hunter\_top\_4.png
- hunter\_top\_5.png
- power\_meter.png

0,69

Size: 512x512 (1024kB)

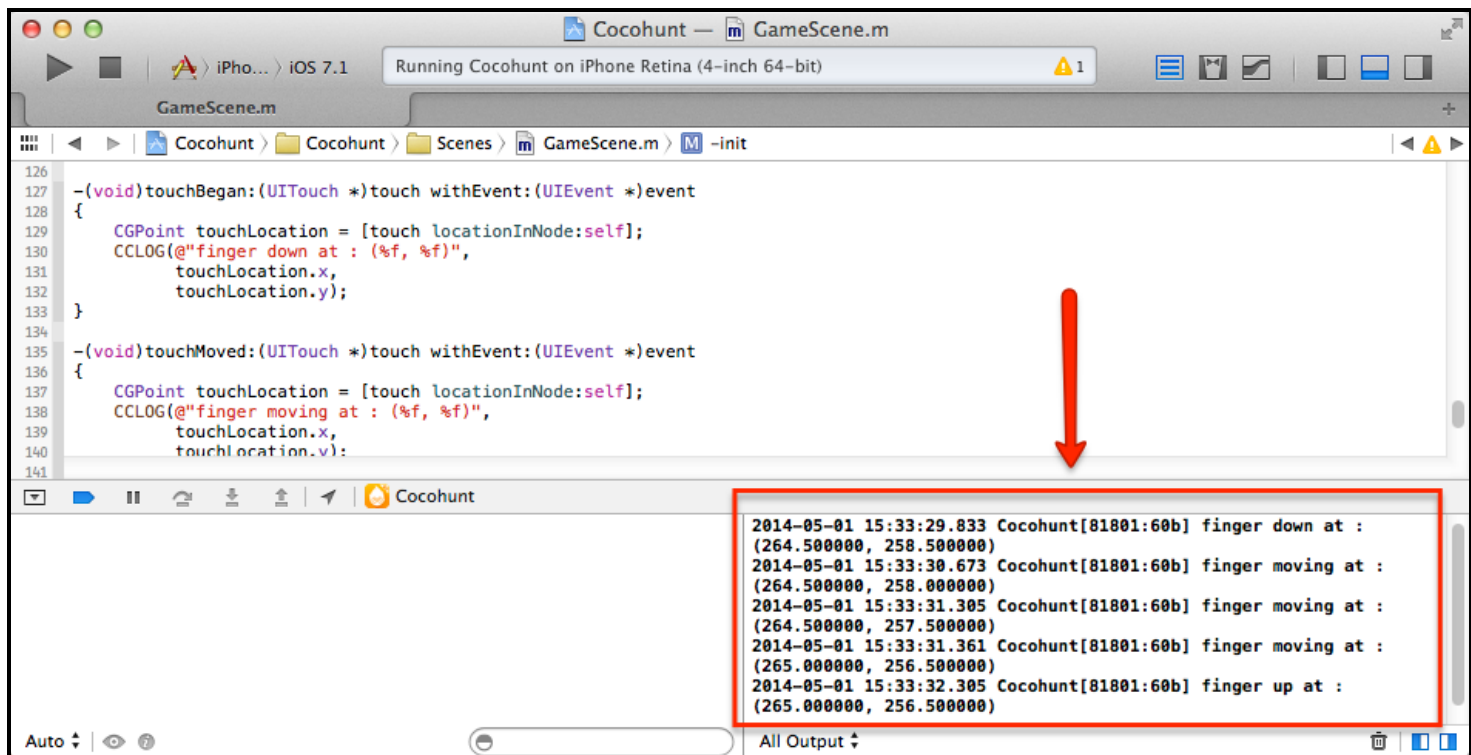
Name	Date Modified
 Cocohunt-hd.plist	Today 16:51
 Cocohunt-hd.png	Today 16:51
 Cocohunt-hd.tps	Today 16:51
 Cocohunt.plist	Today 16:51
 Cocohunt.png	Today 16:51
 Cocohunt.tps	Today 16:51



# 5

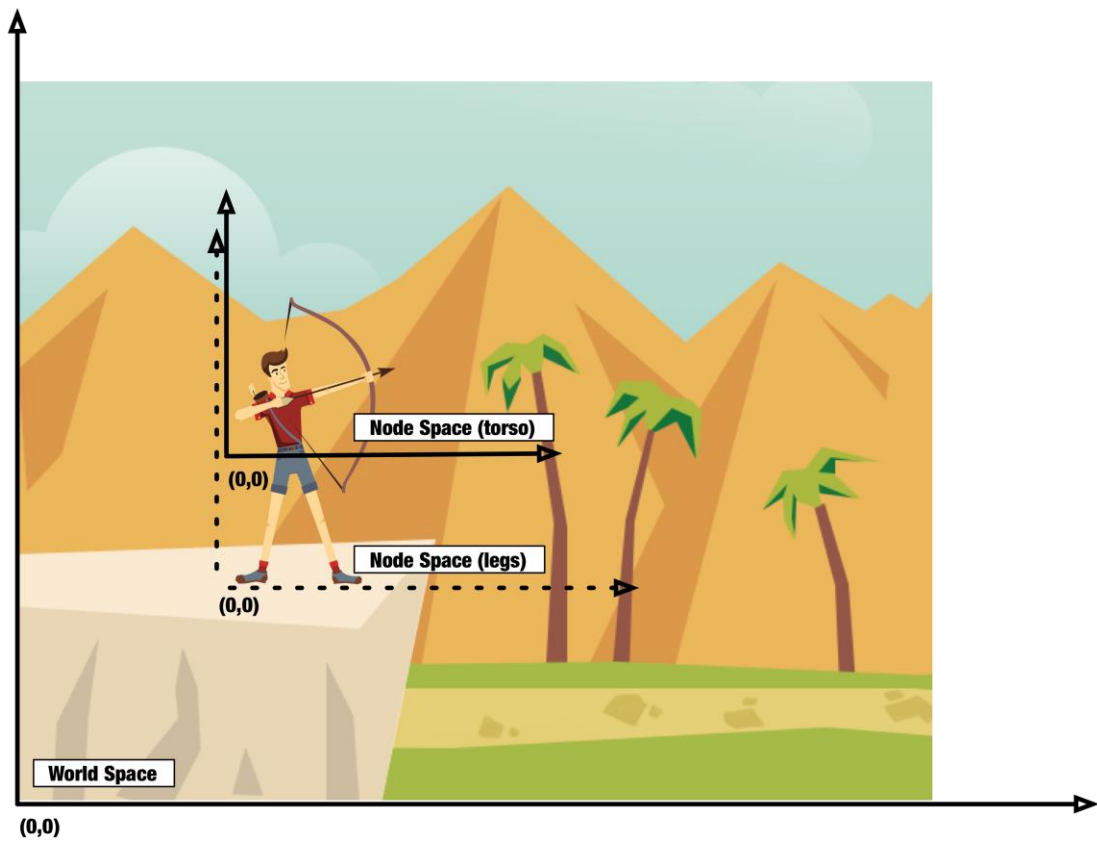
## Starting the Action

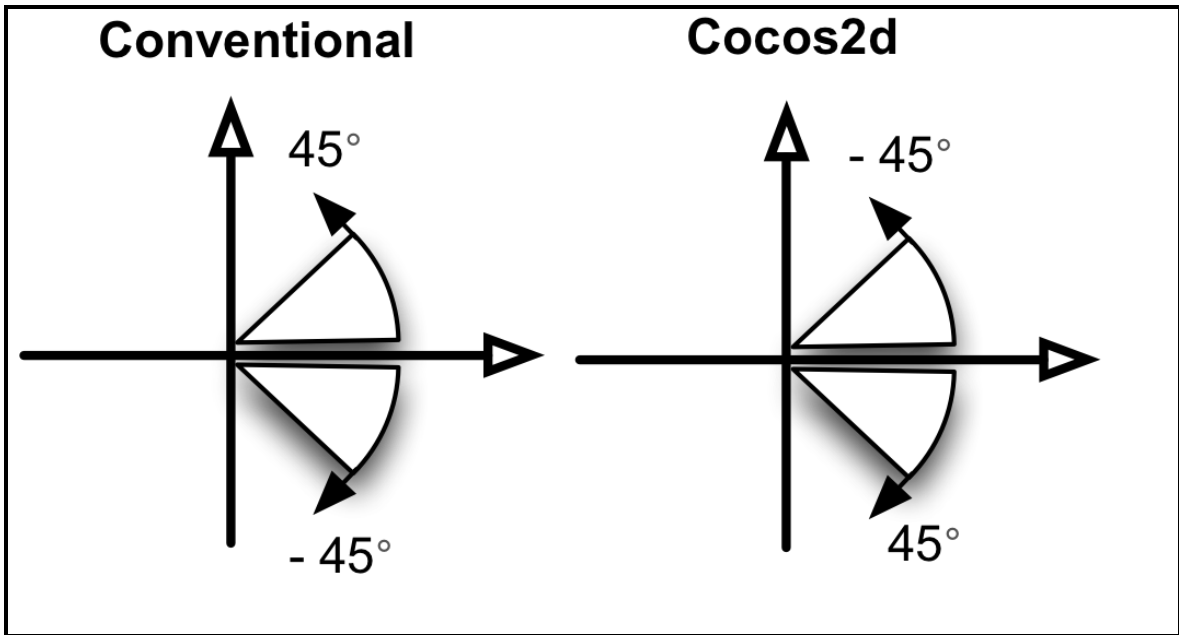
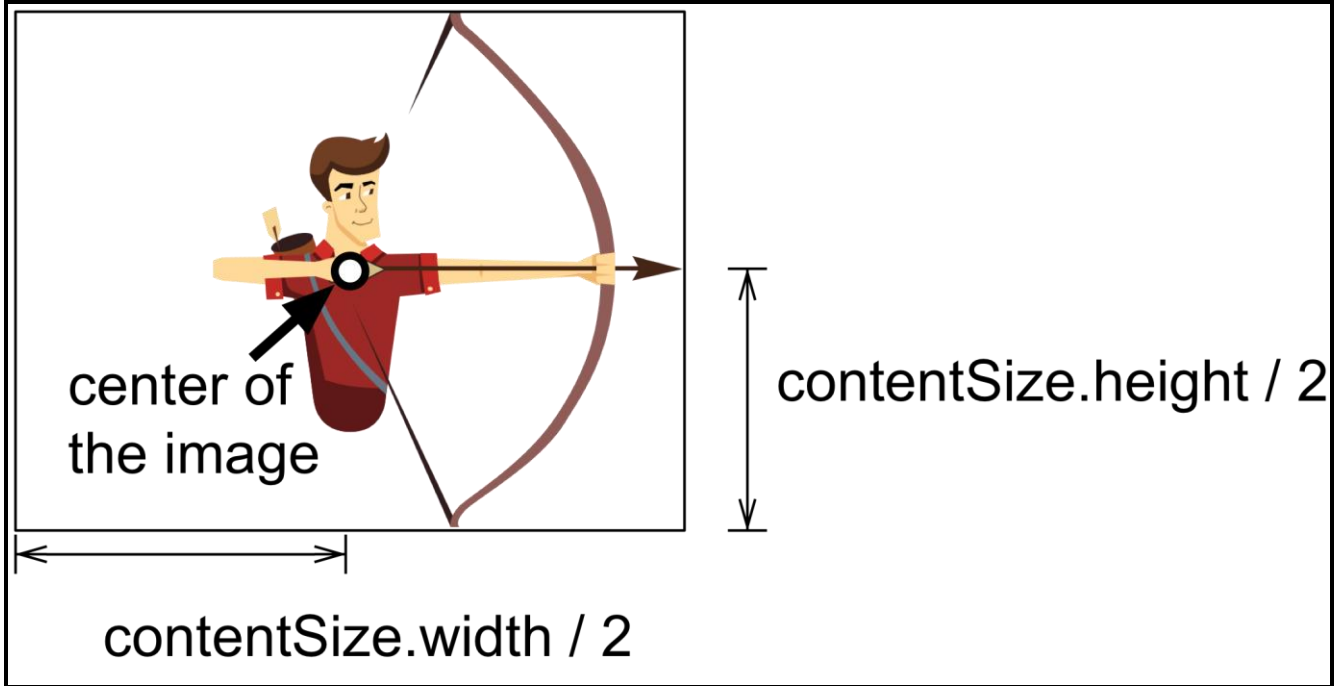
### Making the hunter aim and shoot



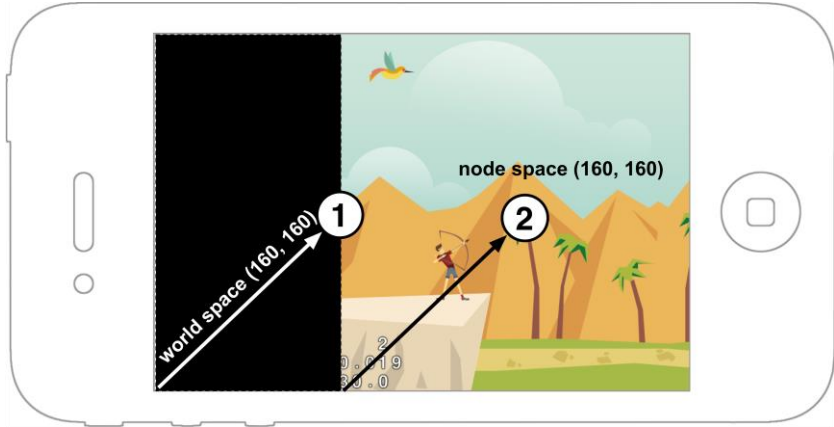
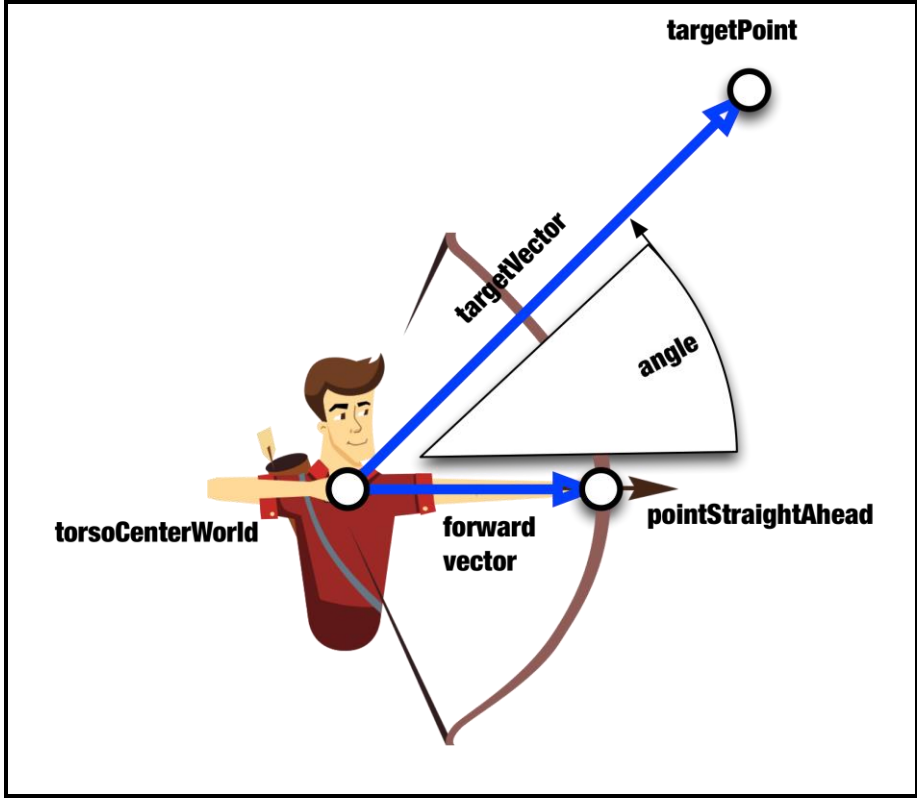
The screenshot shows the Xcode IDE with a project named 'Cocohunt' running on an iPhone Retina (4-inch 64-bit). The code in GameScene.m defines two methods: touchBegan and touchMoved. The touchBegan method logs the finger down location, and the touchMoved method logs the finger moving location. The console output shows the following log messages:

```
2014-05-01 15:33:29.833 Cocohunt[81801:60b] finger down at :  
(264.500000, 258.500000)  
2014-05-01 15:33:30.673 Cocohunt[81801:60b] finger moving at :  
(264.500000, 258.000000)  
2014-05-01 15:33:31.305 Cocohunt[81801:60b] finger moving at :  
(264.500000, 257.500000)  
2014-05-01 15:33:31.361 Cocohunt[81801:60b] finger moving at :  
(265.000000, 256.500000)  
2014-05-01 15:33:32.305 Cocohunt[81801:60b] finger up at :  
(265.000000, 256.500000)
```

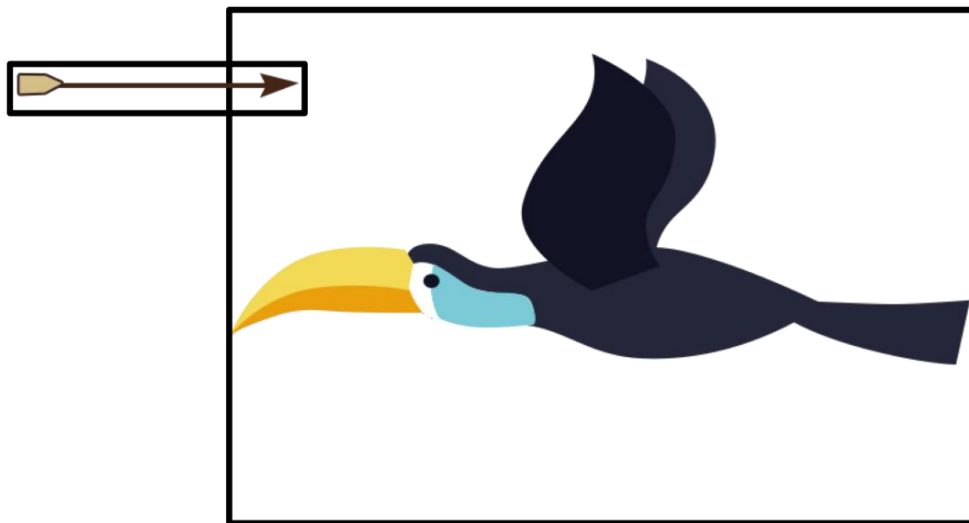


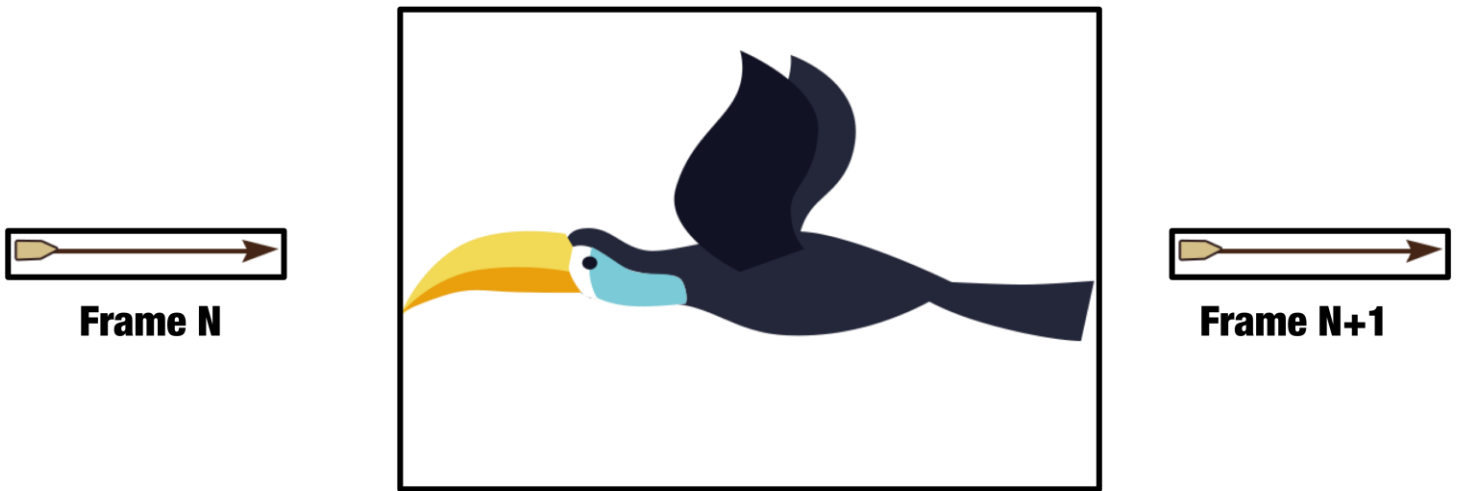




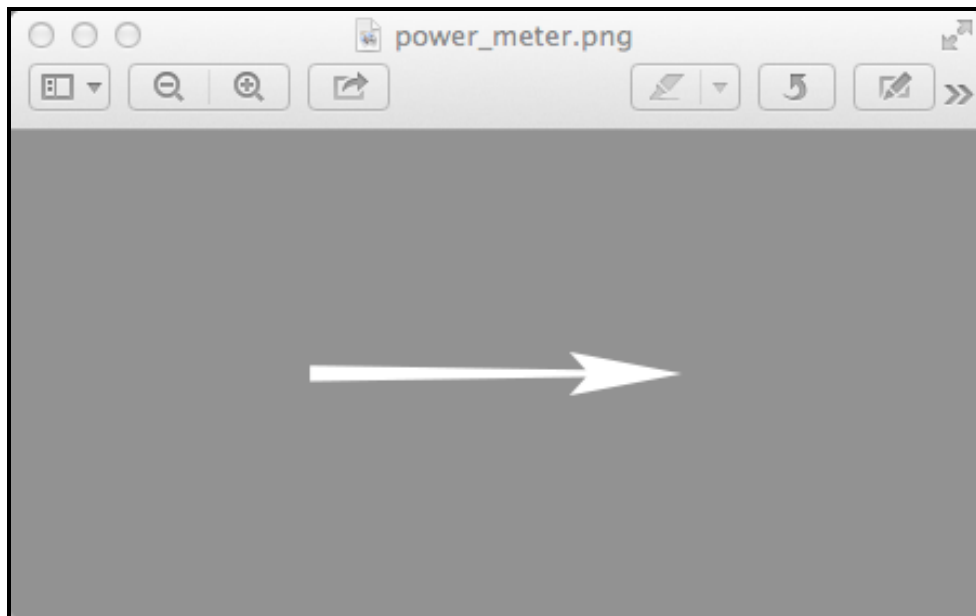


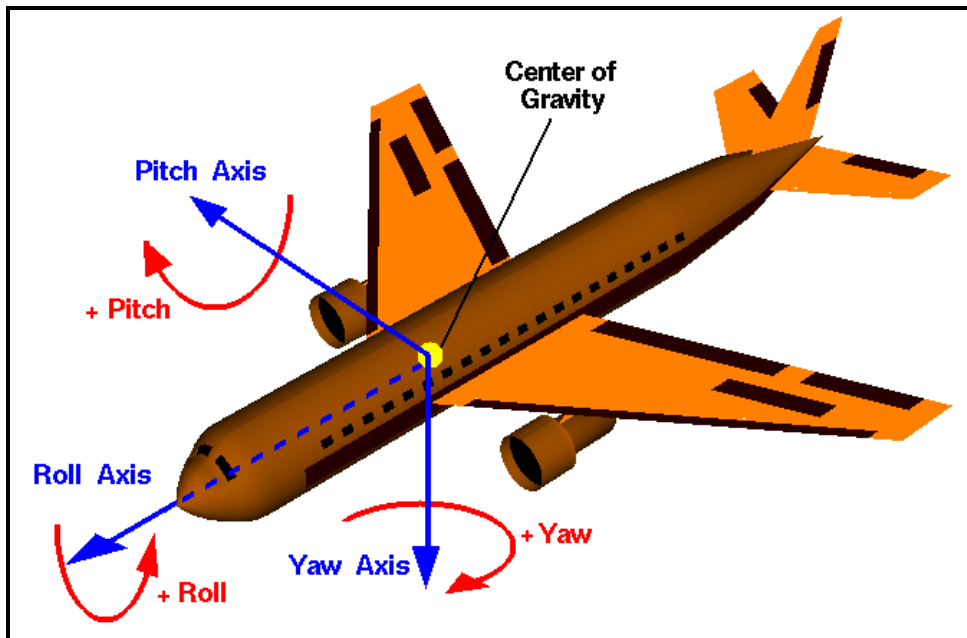
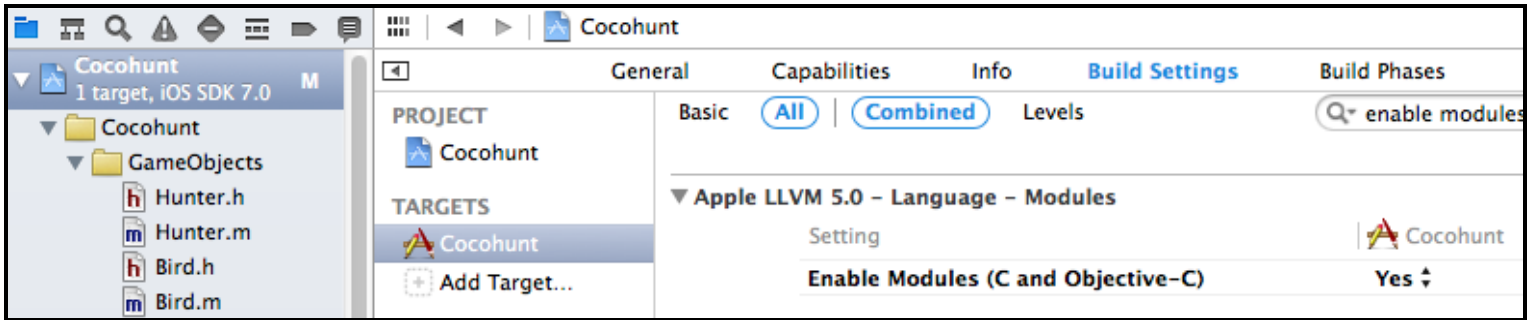
## Adding more birds to the GameScene class

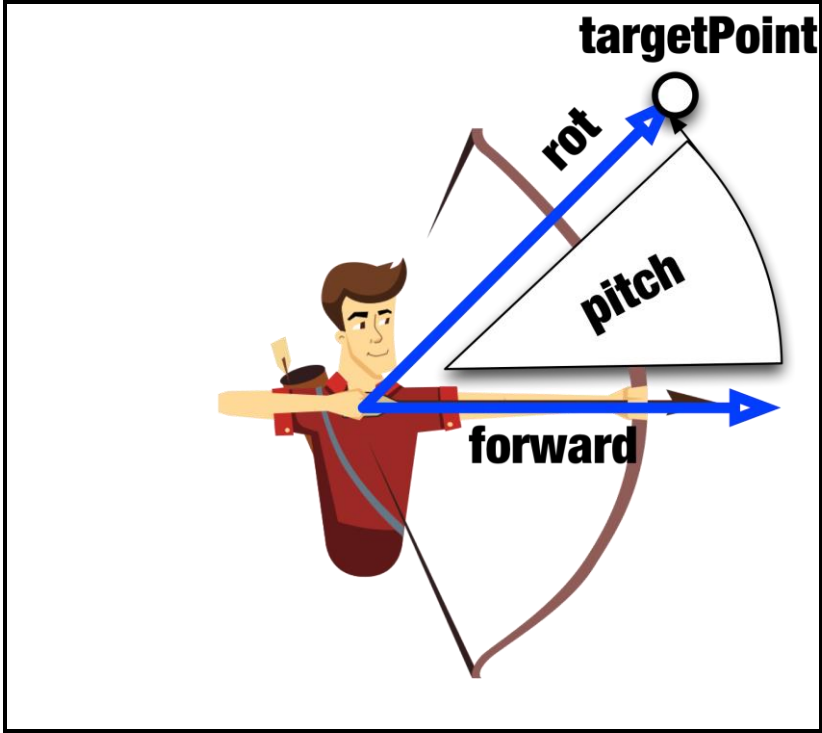




### Improving the gameplay



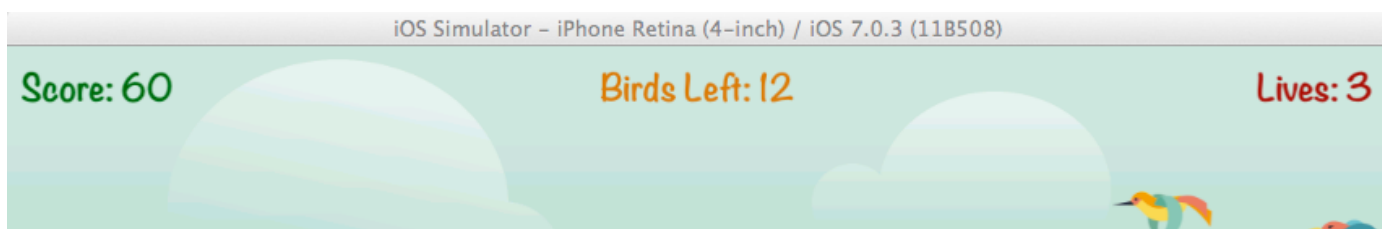
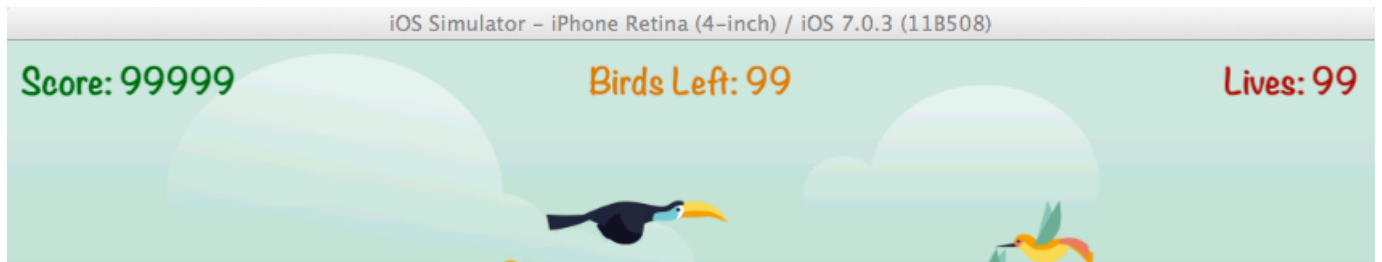




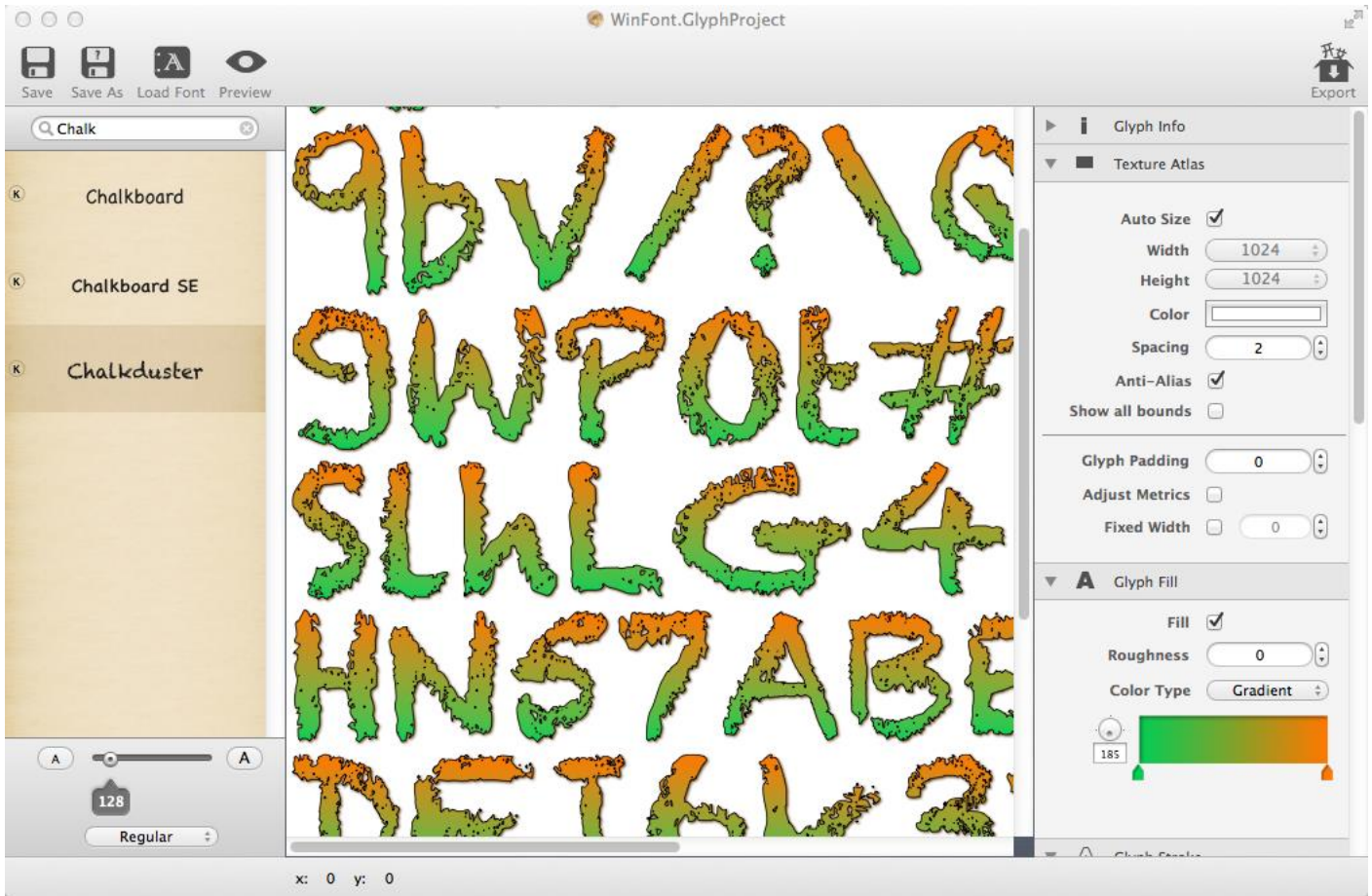
# 6

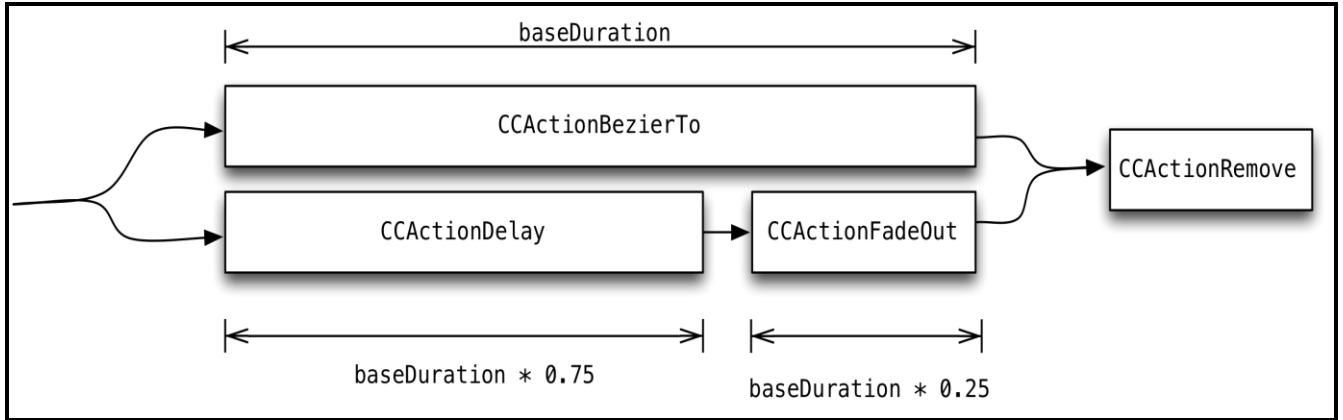
## Rendering Text

### The easy way – CCLabelITTF



# Using bitmap fonts for better performance



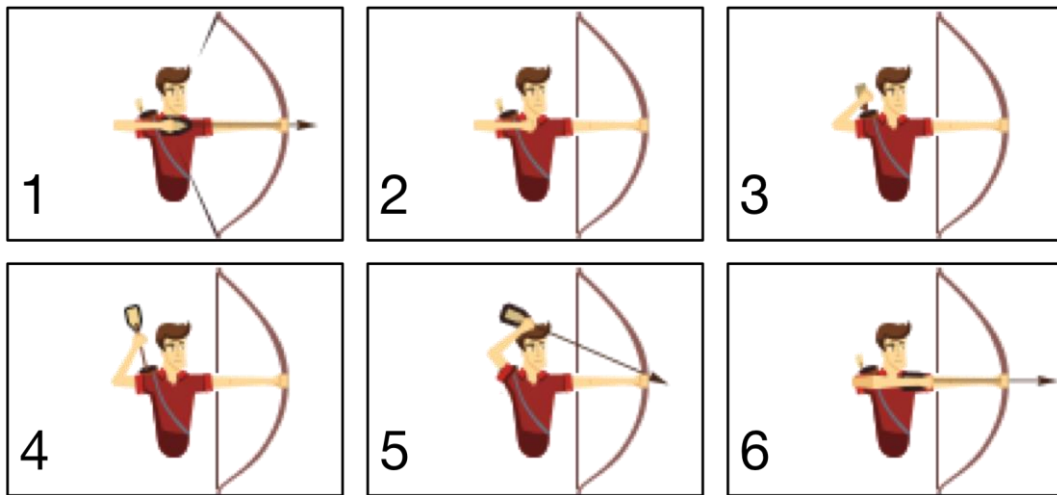


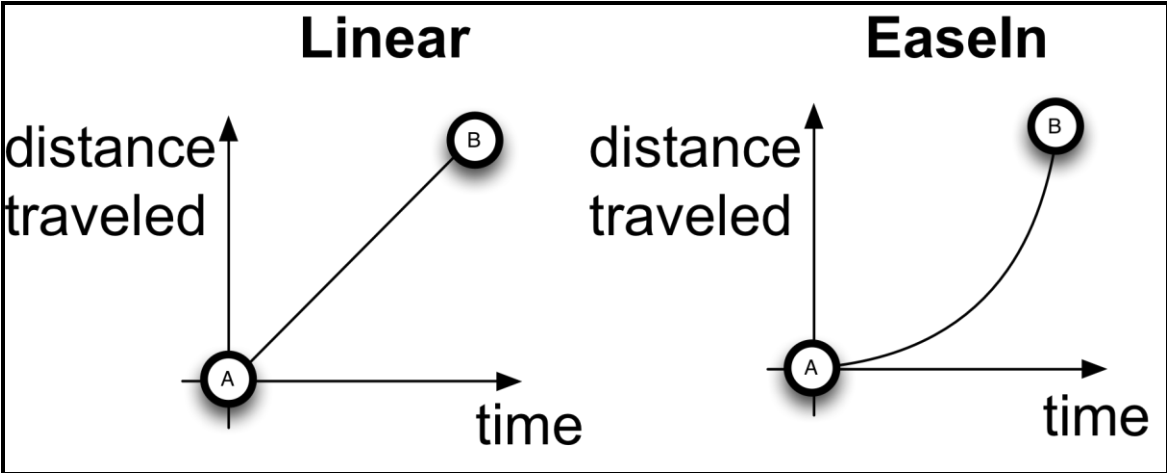
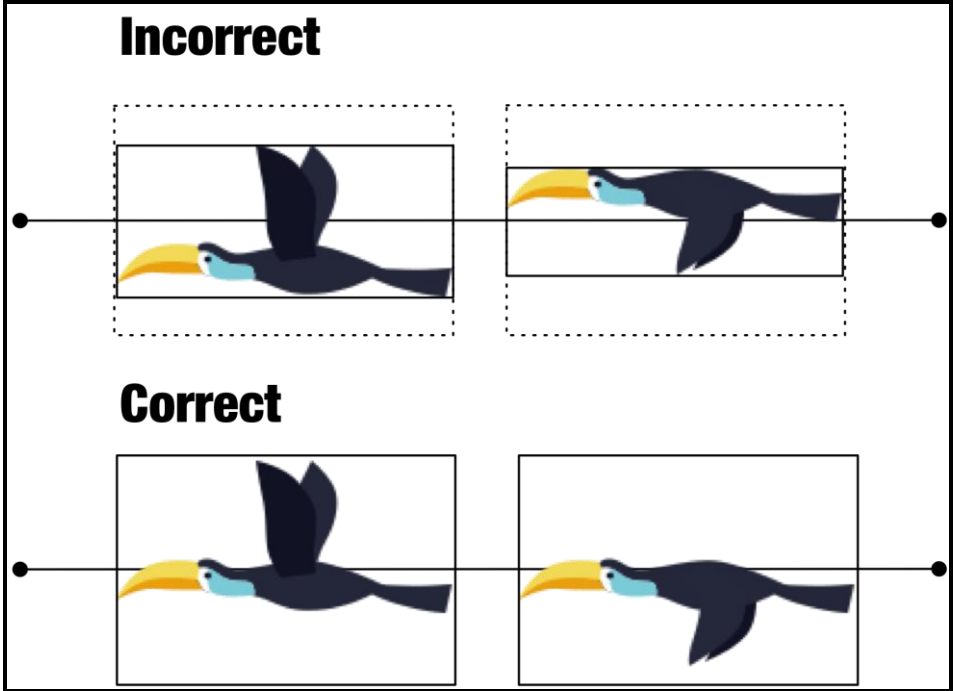


# 7

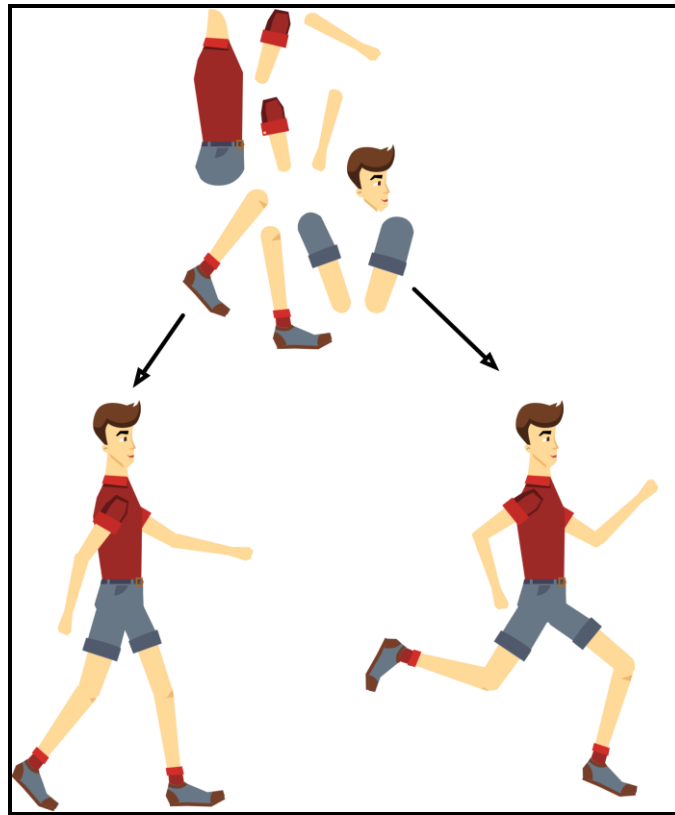
## Animations and Particle Systems

### Using frame-based animation

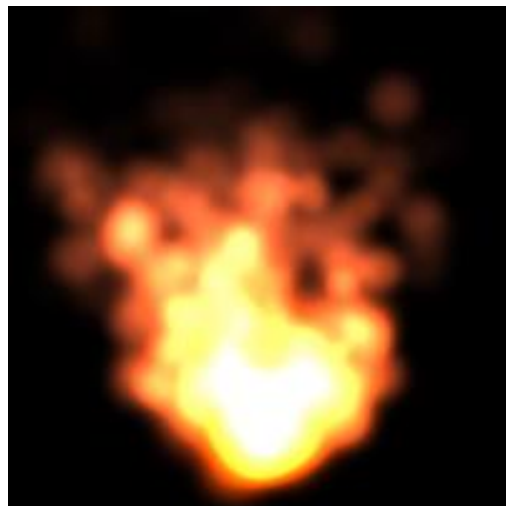




## Animating using actions



## Creating particle systems for advanced effects



Score: 20

Birds Left: 7

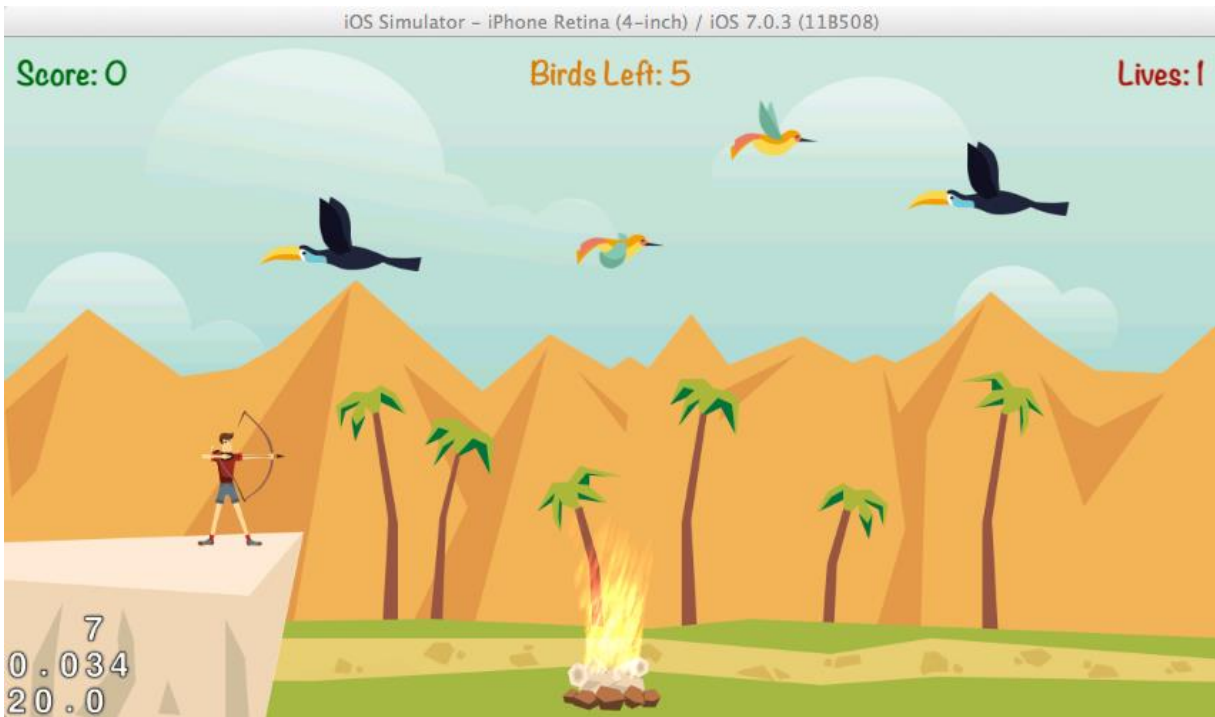
Lives: 1

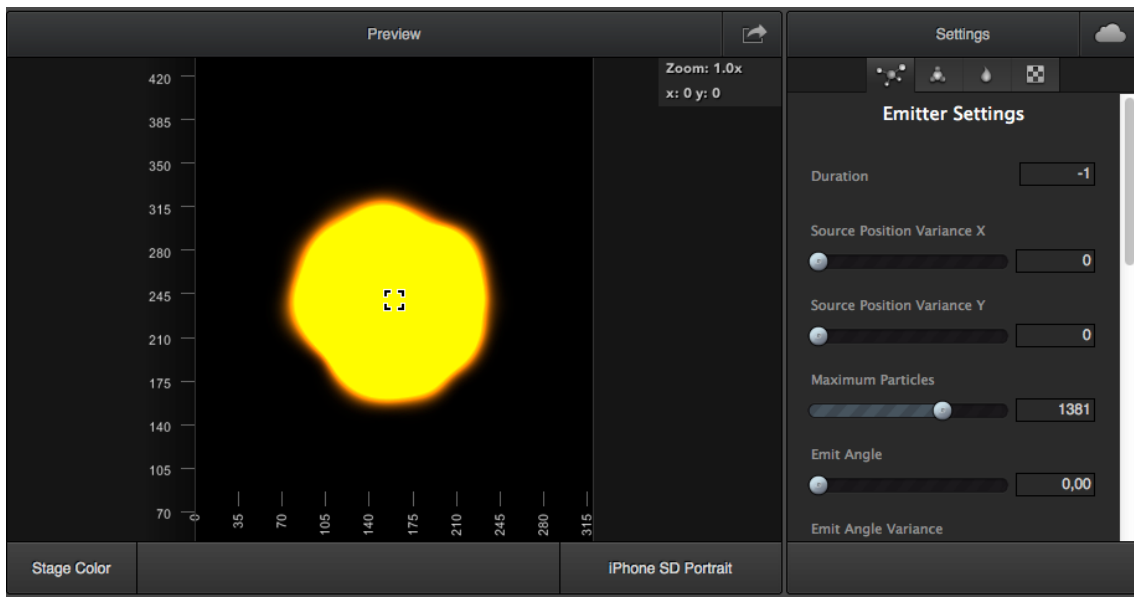
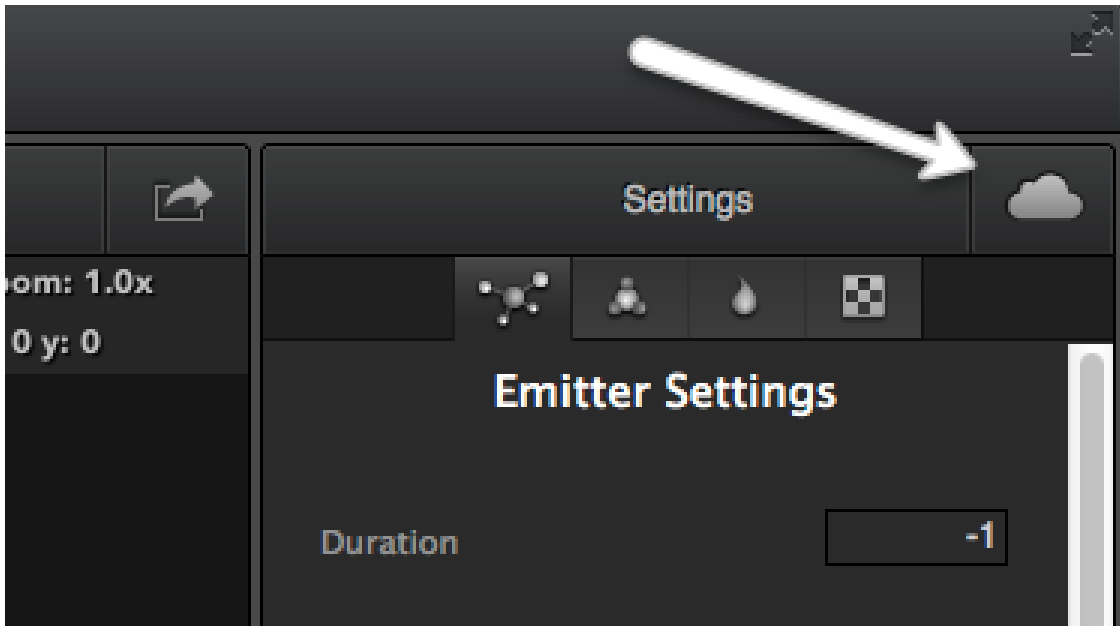


Score: 0

Birds Left: 5

Lives: 1





Score: 10

Birds Left: 6

Lives: 1

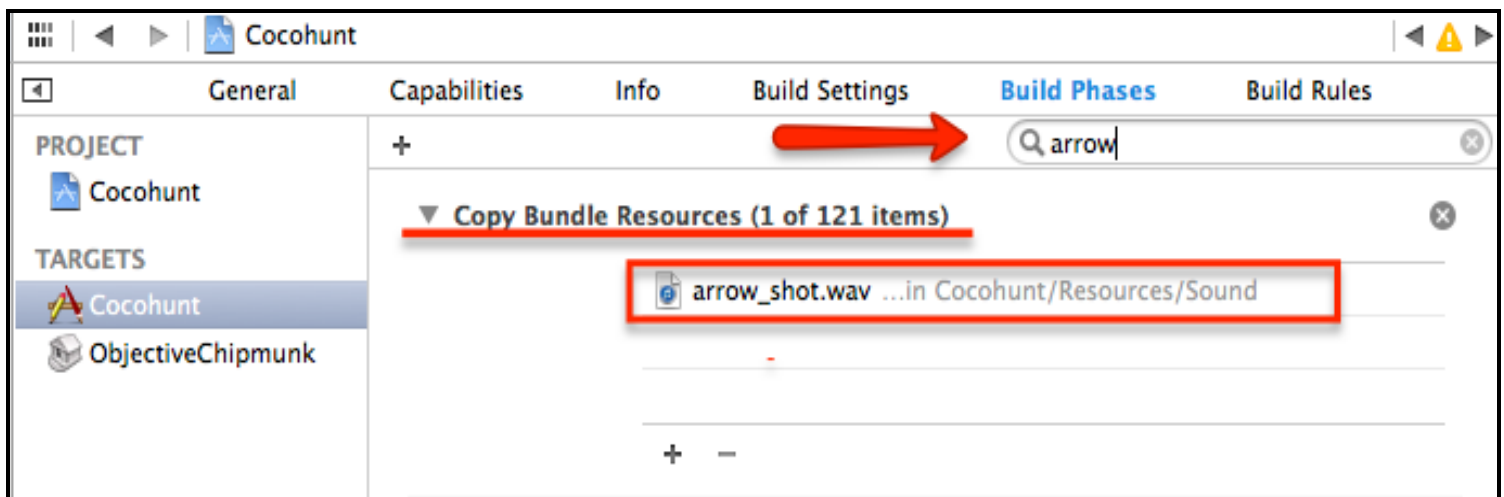
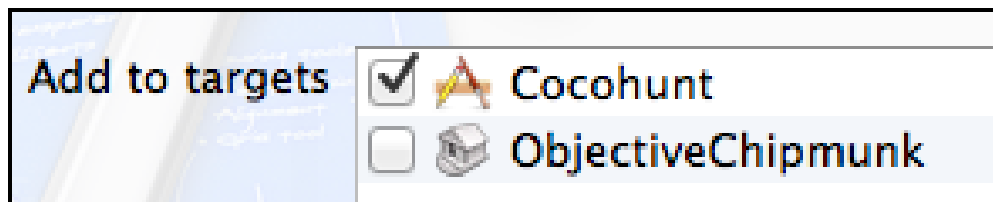


8  
0.384  
60.0

# 8

## Adding Sound Effects and Music

### Creating AudioManager and playing sound effects



## Music and background sound

Fire    Forest Ambien    Grasshopper    No Sound

20 %    20 %    10 %    20 %

0 %    0 %    0 %    0 %

Save as Link    Export to File

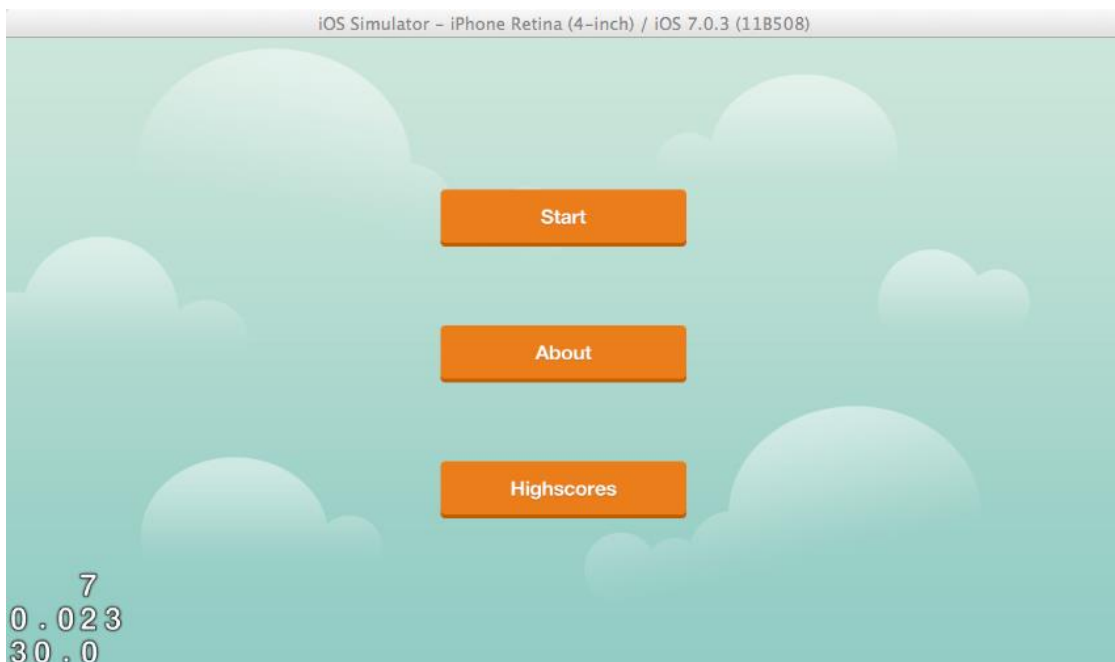
© 2013 naturesoundsfor.me

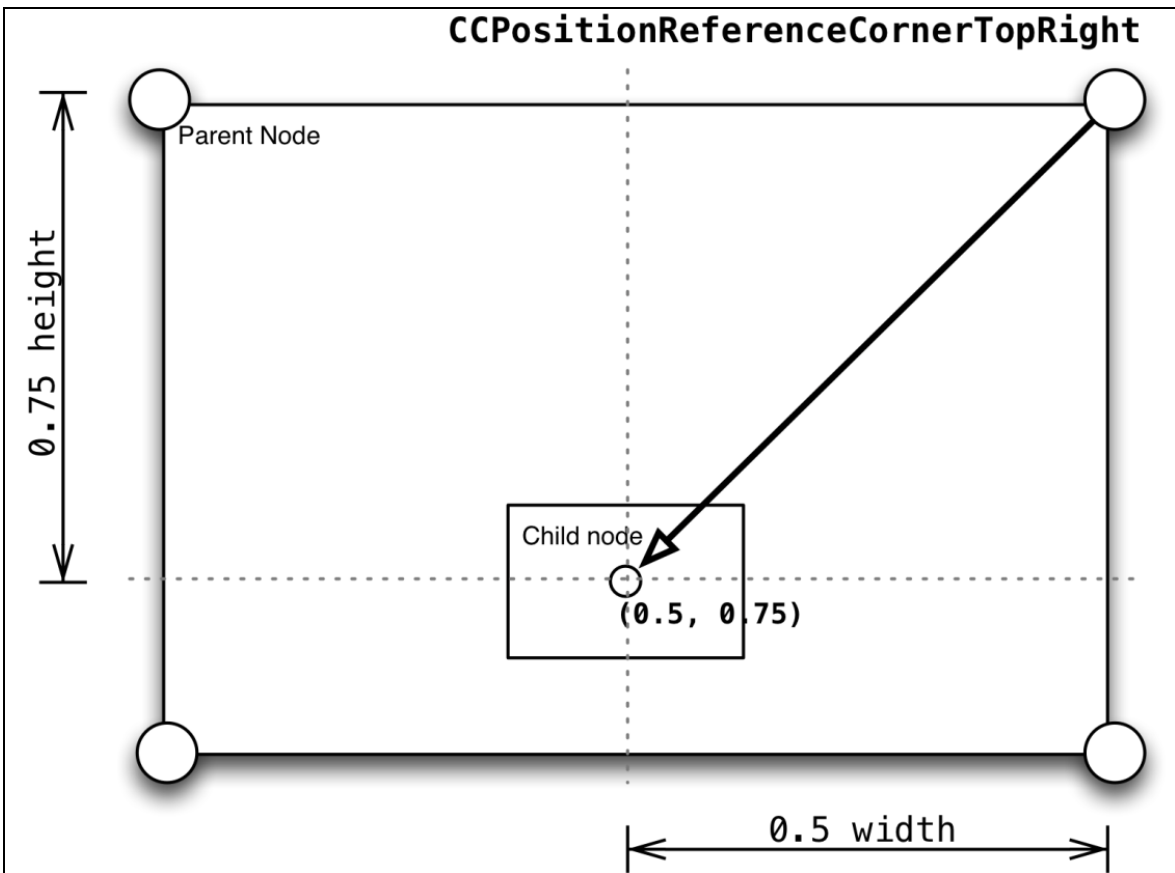
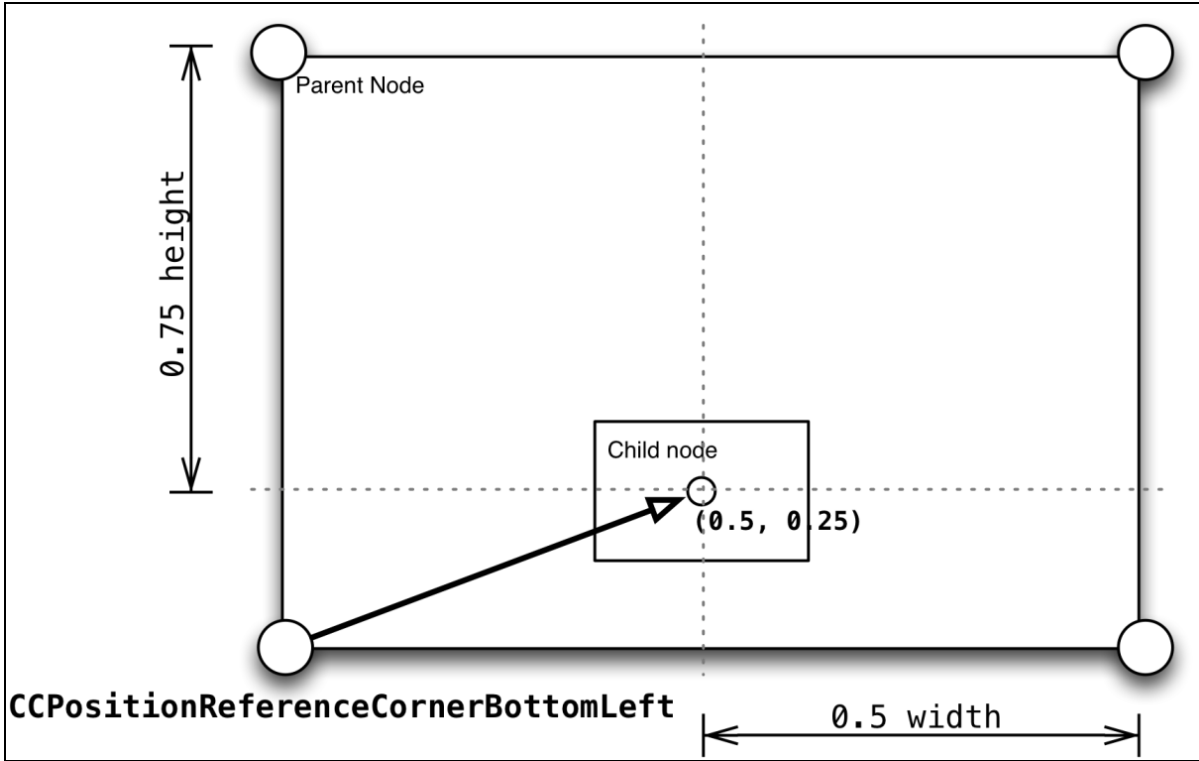


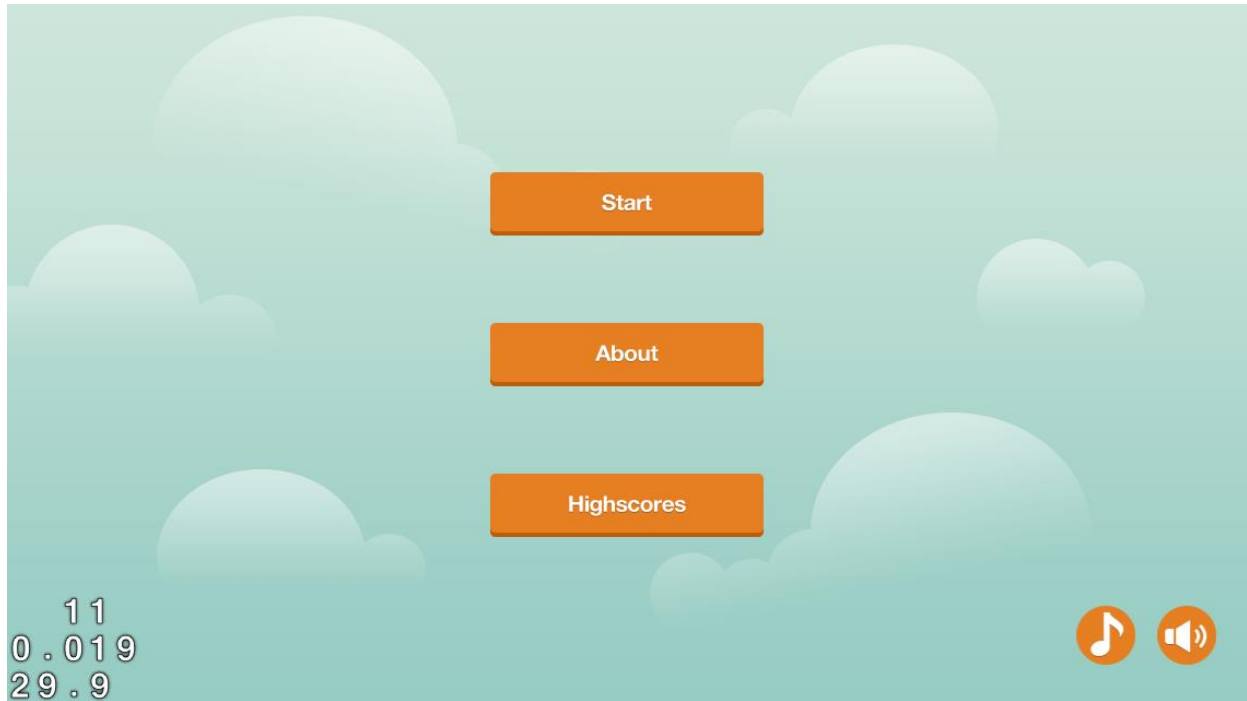
# 9

## User Interface and Navigation

### Using buttons

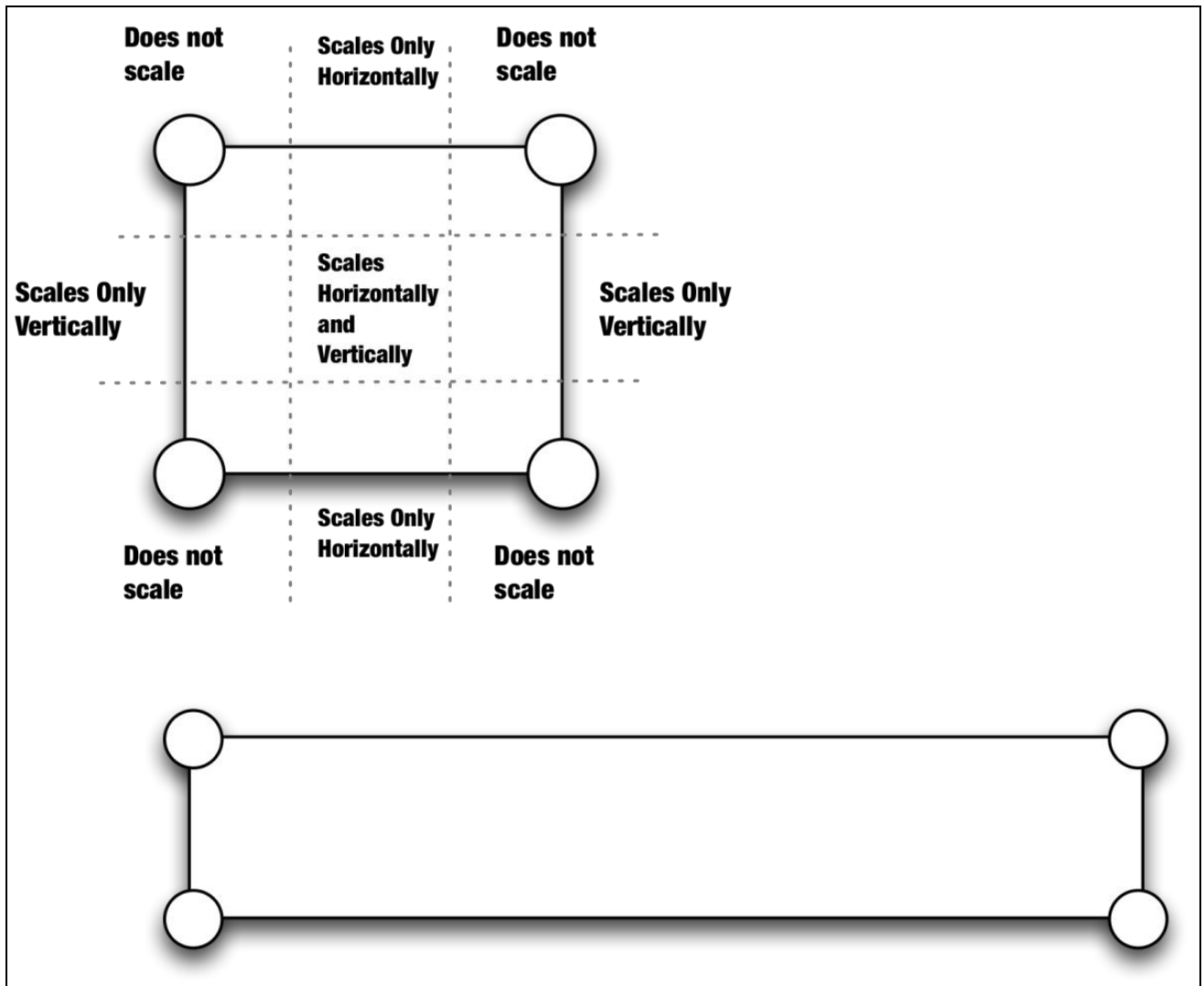
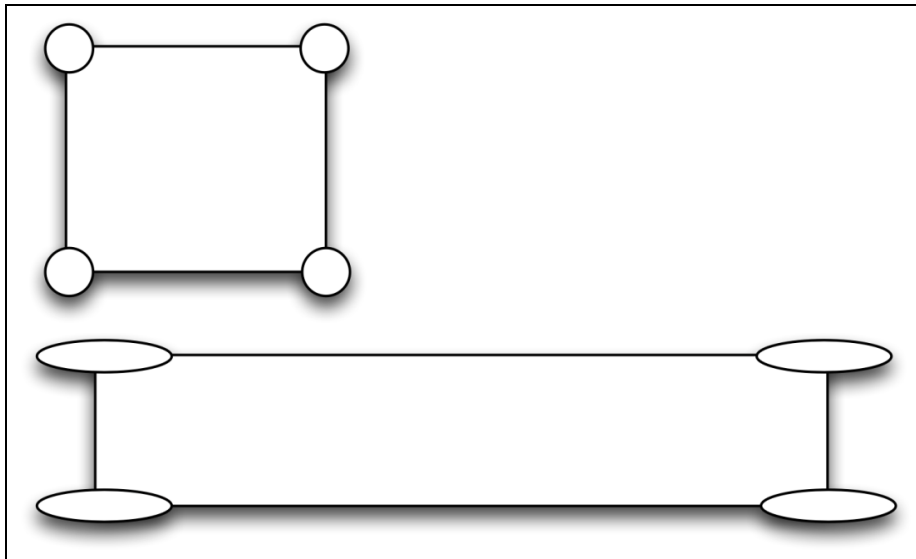


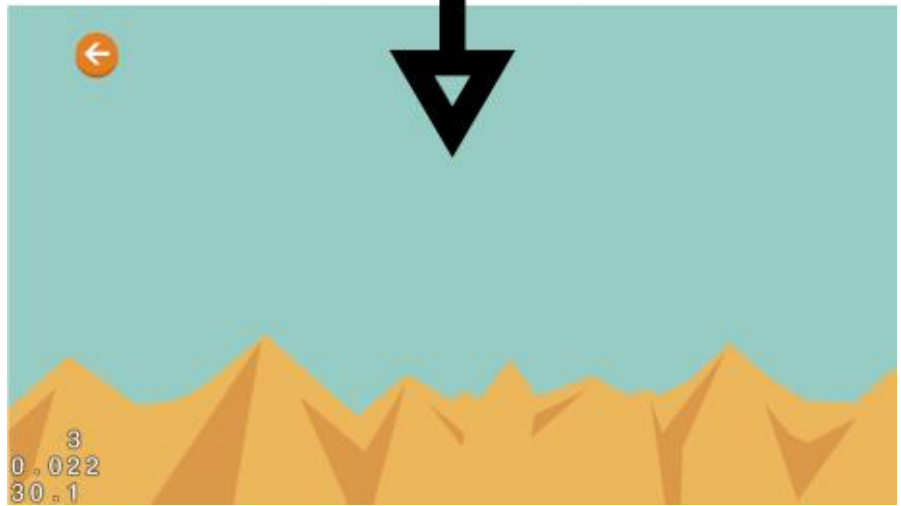
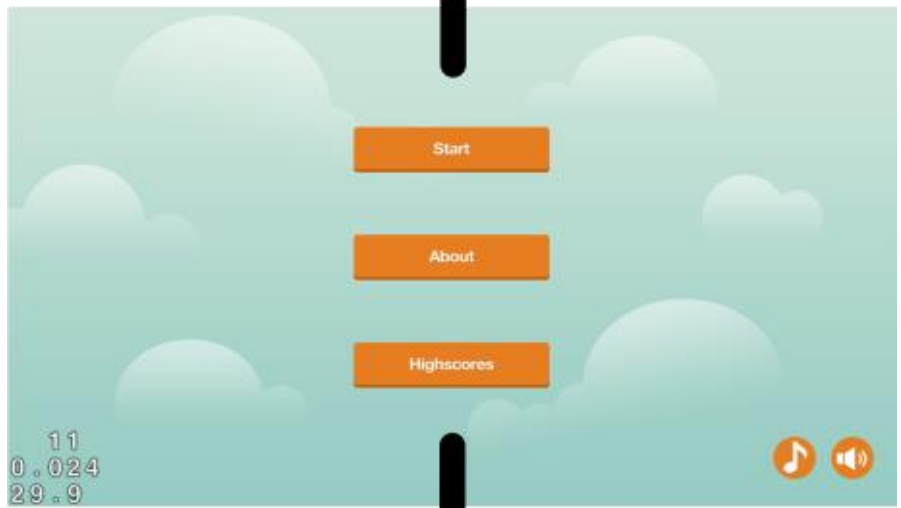




## Navigating between scenes









23  
0.027  
30.0

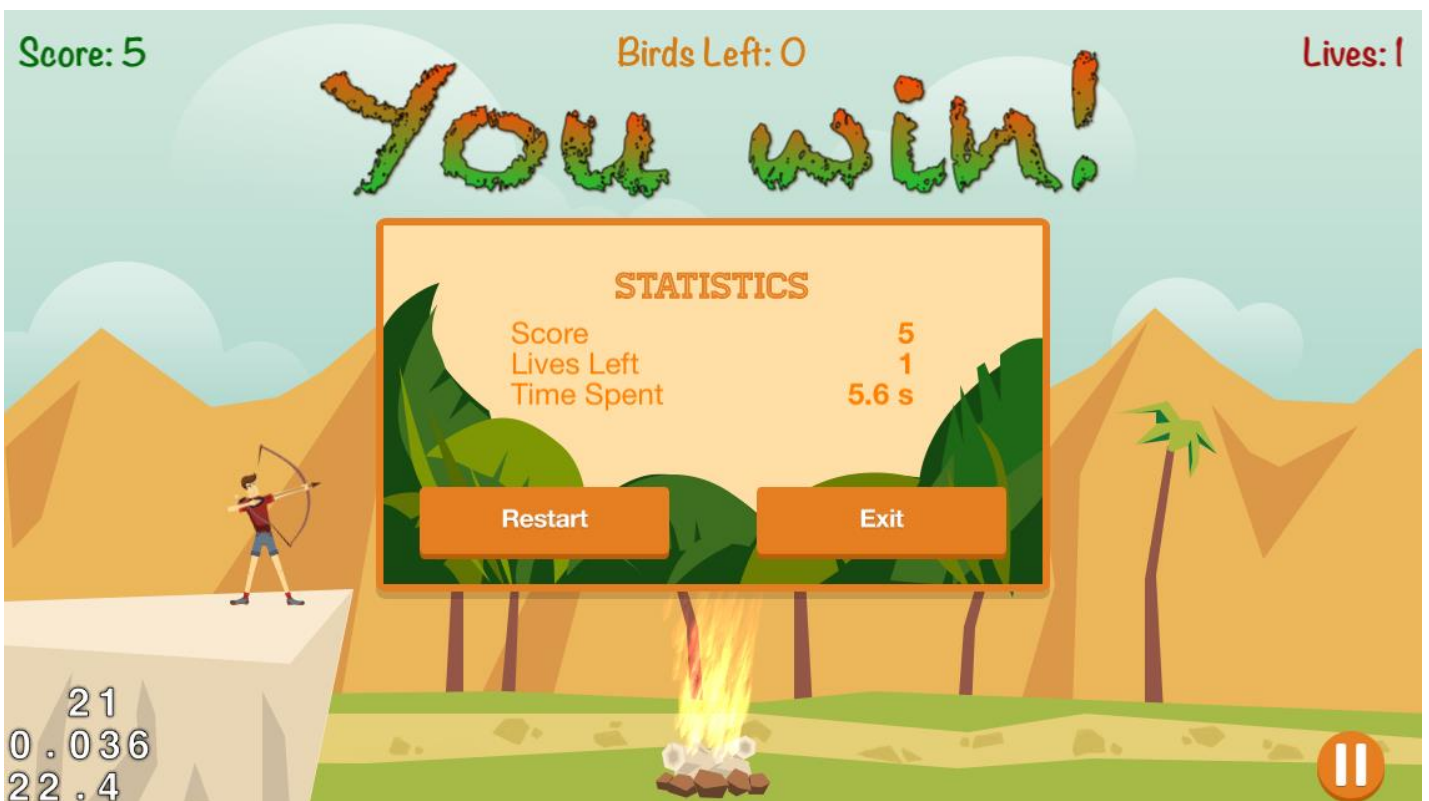
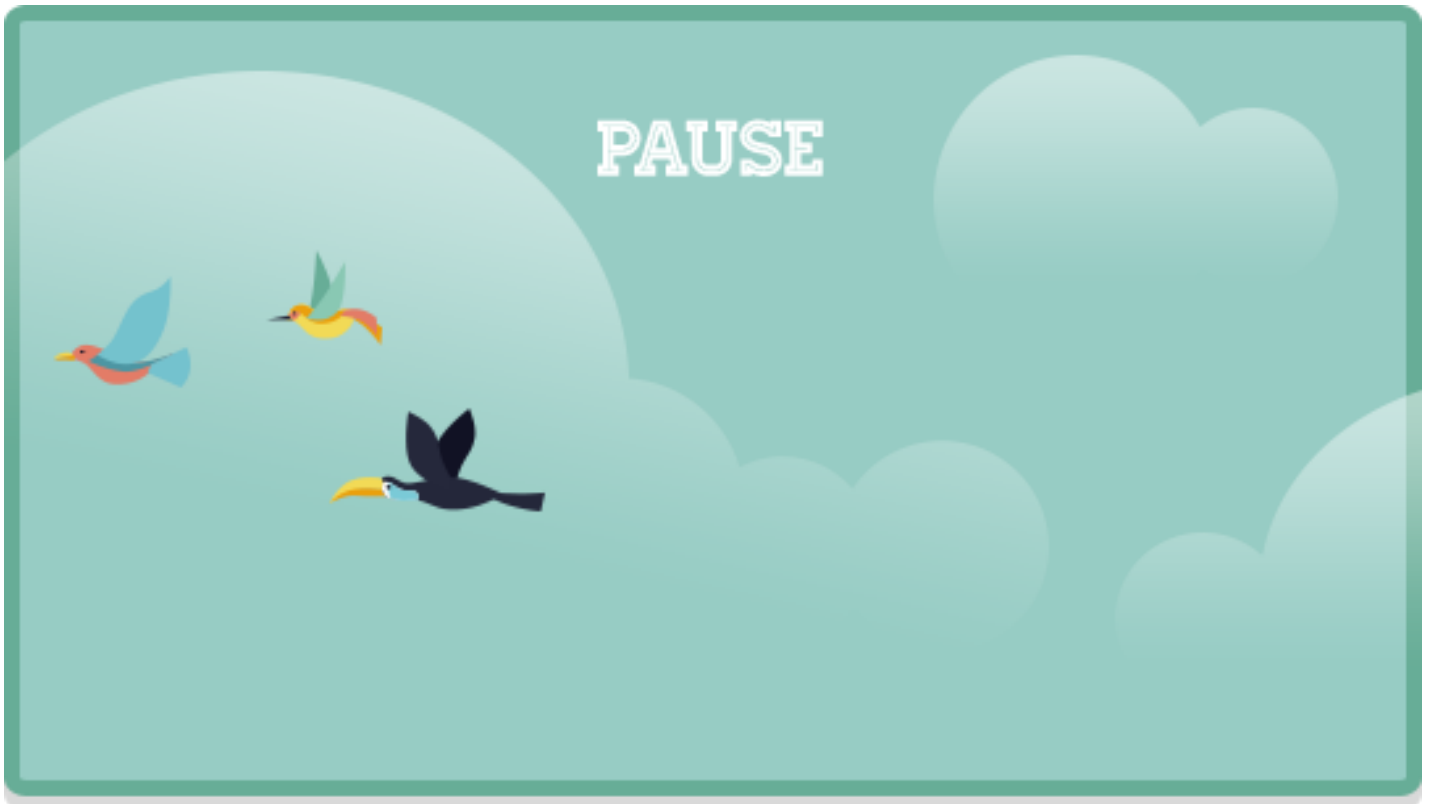
Scroll View Node

Content Node

Scroll View Node

Content Node

## Creating modal dialogs and using text input



## Entering and displaying highscores

iOS Simulator - iPhone Retina (4-inch) / iOS 7.0.3 (11B508)



### HIGHSCORES

Player #0 100 pts.

Player #1 99 pts.

Player #2 98 pts.

Player #3 97 pts.

Player #4 96 pts.

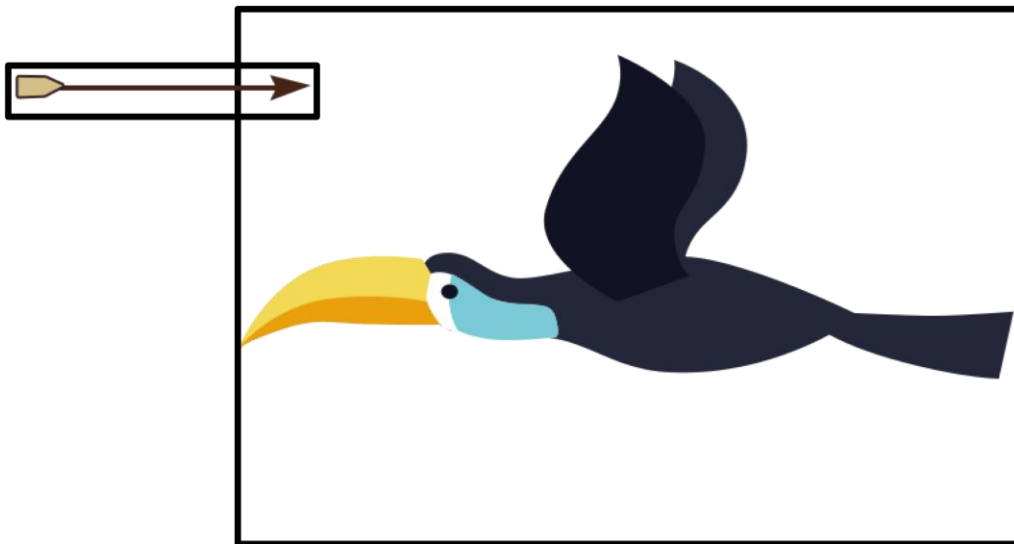
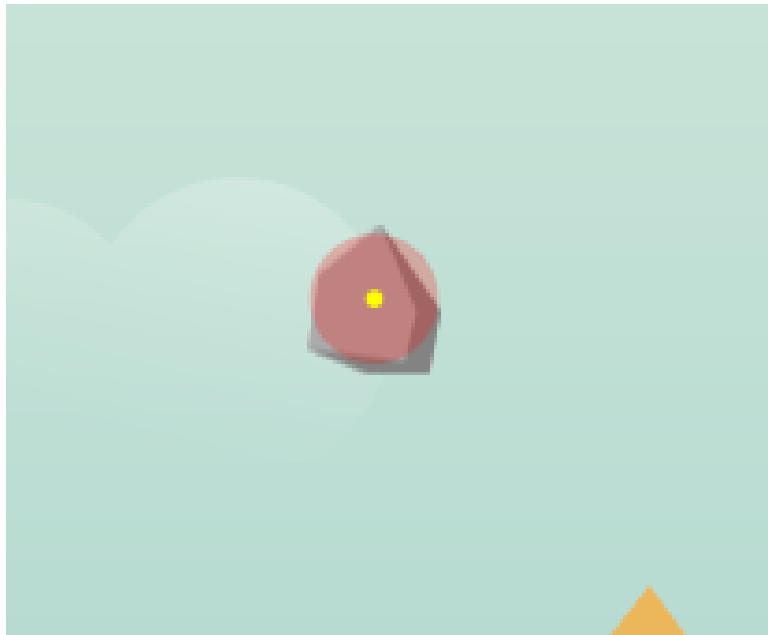
23  
0.026  
30.2

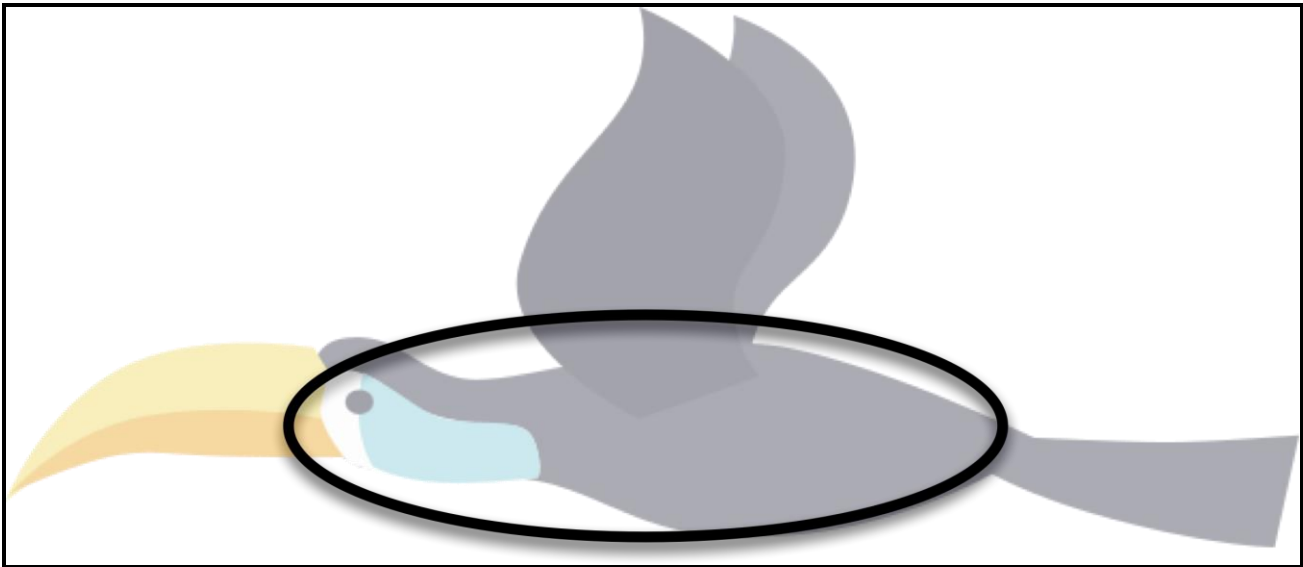
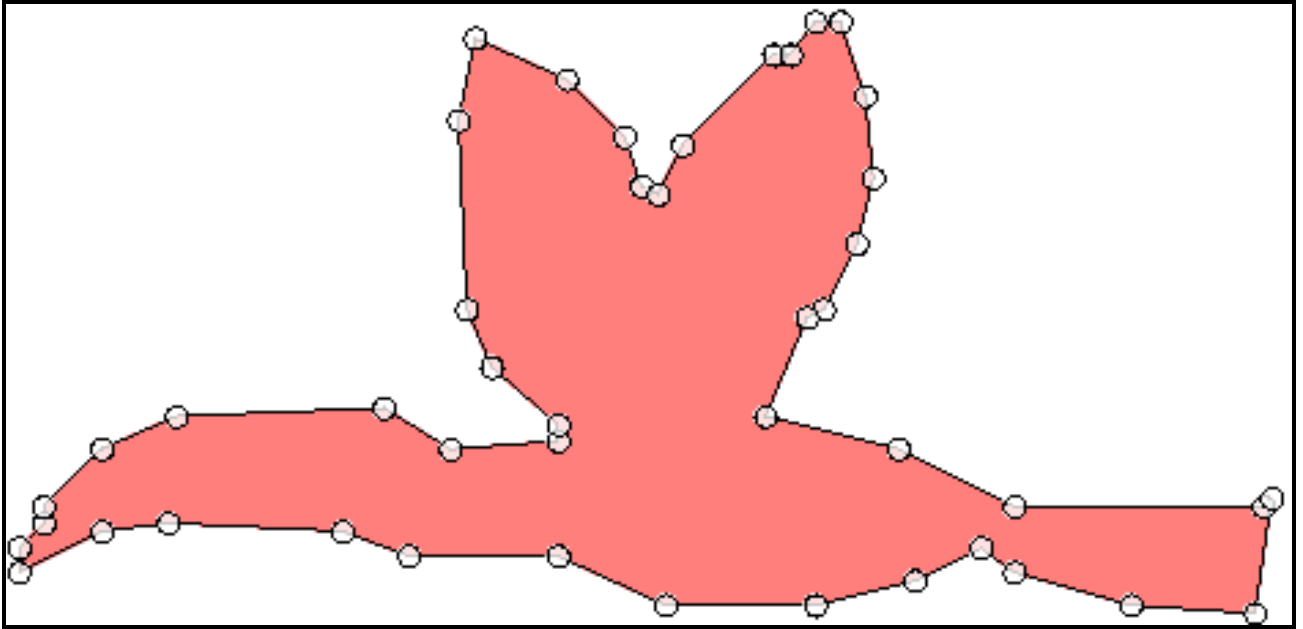


# 10

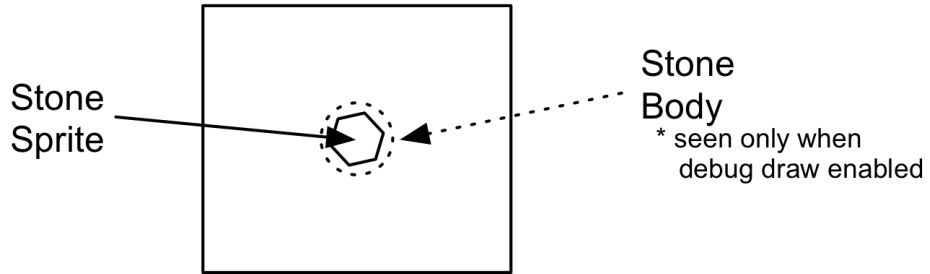
## Physics

Creating a physics world





# What we have

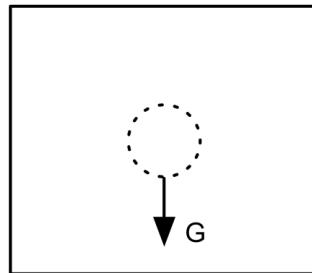
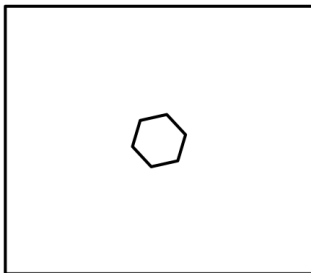


# How it works

What we see

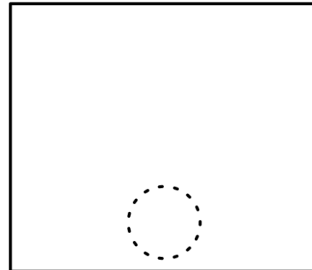
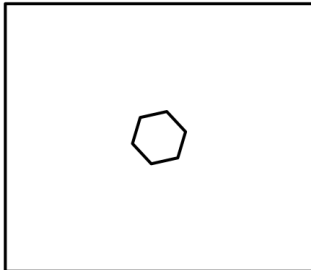
What is simulated, by physics engine

1.



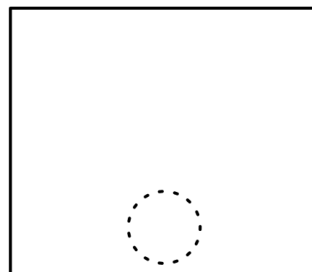
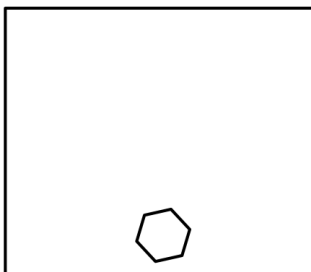
Gravity affects the physics body...

2.

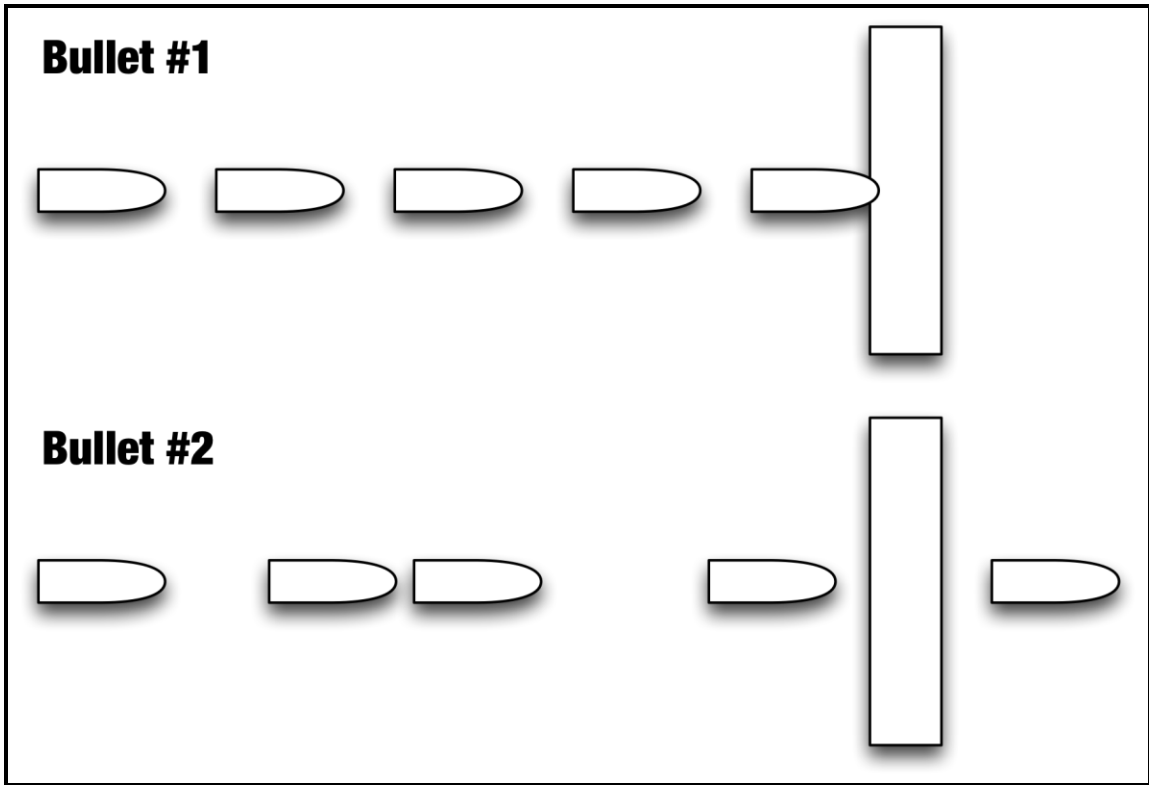
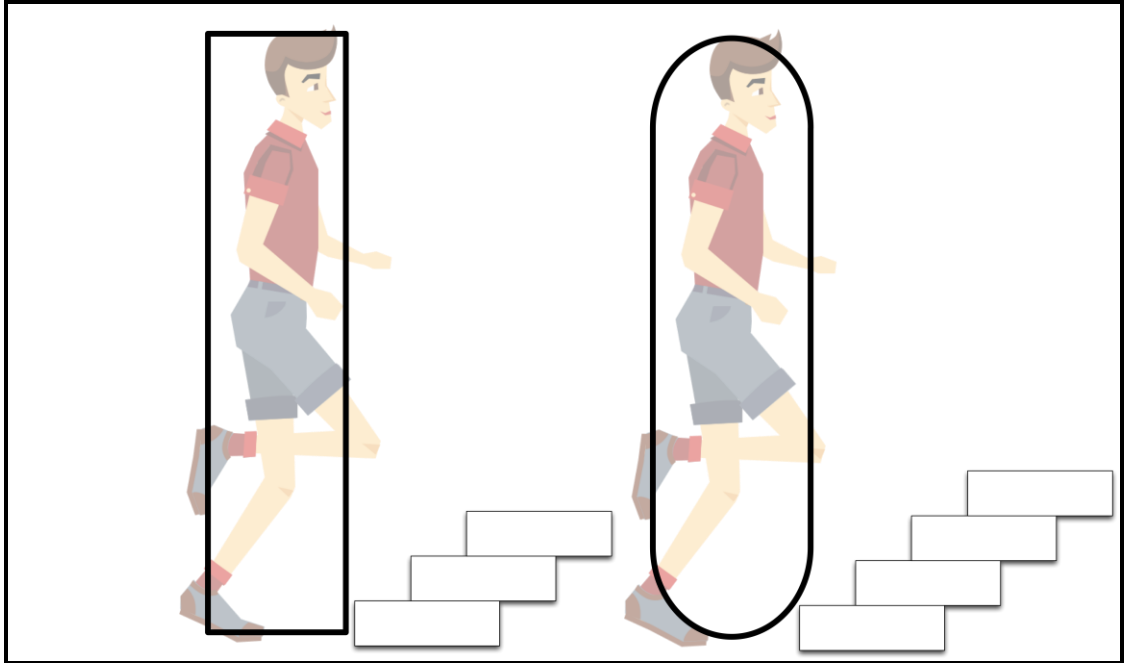


..and the physics body moves down..

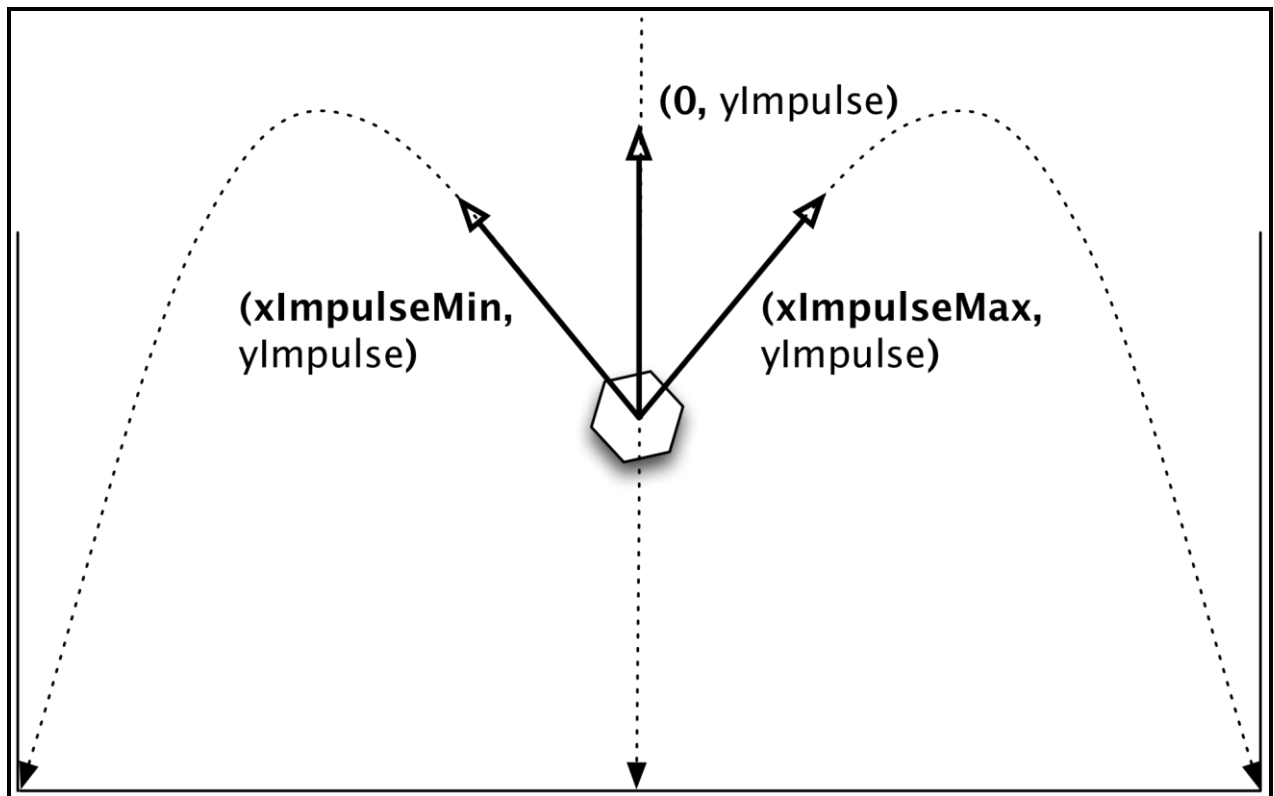
3.



Since the physics body and the sprite are linked the sprite's position is also updated



## Applying forces and impulses using joints

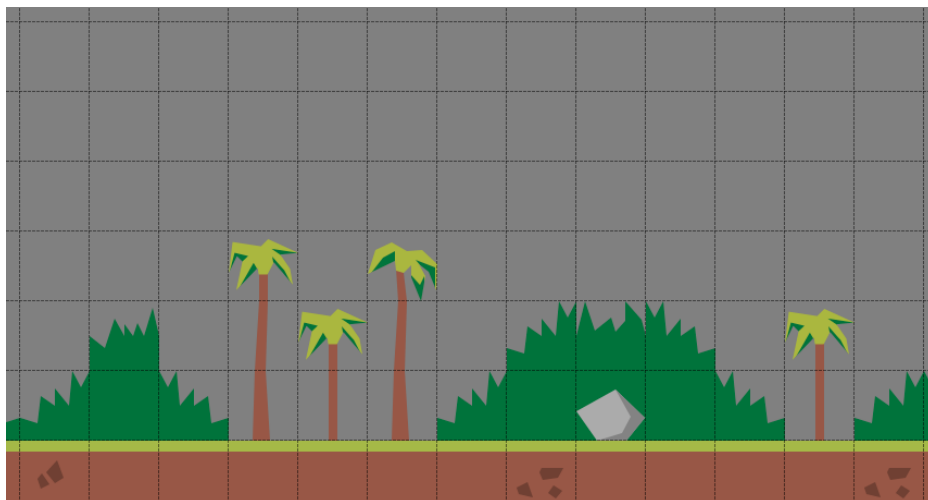
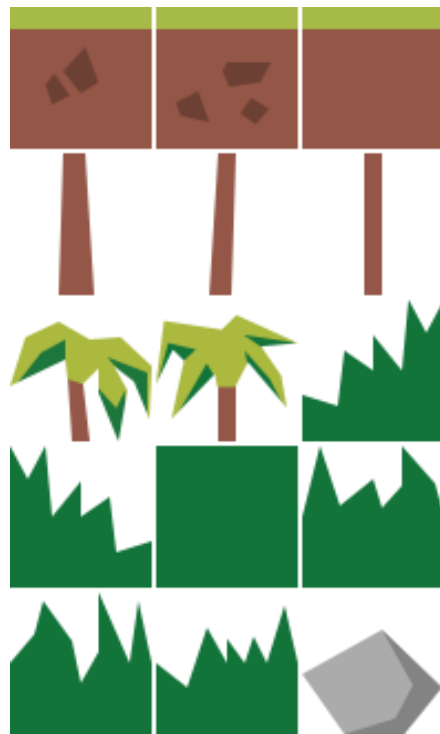




# 11

## Working with Tile Maps

### Creating the tile maps



**New Tileset**

**Tileset**

Name:

Image:

Use transparent color:

**Tiles**

Tile width:

Tile height:

Margin:

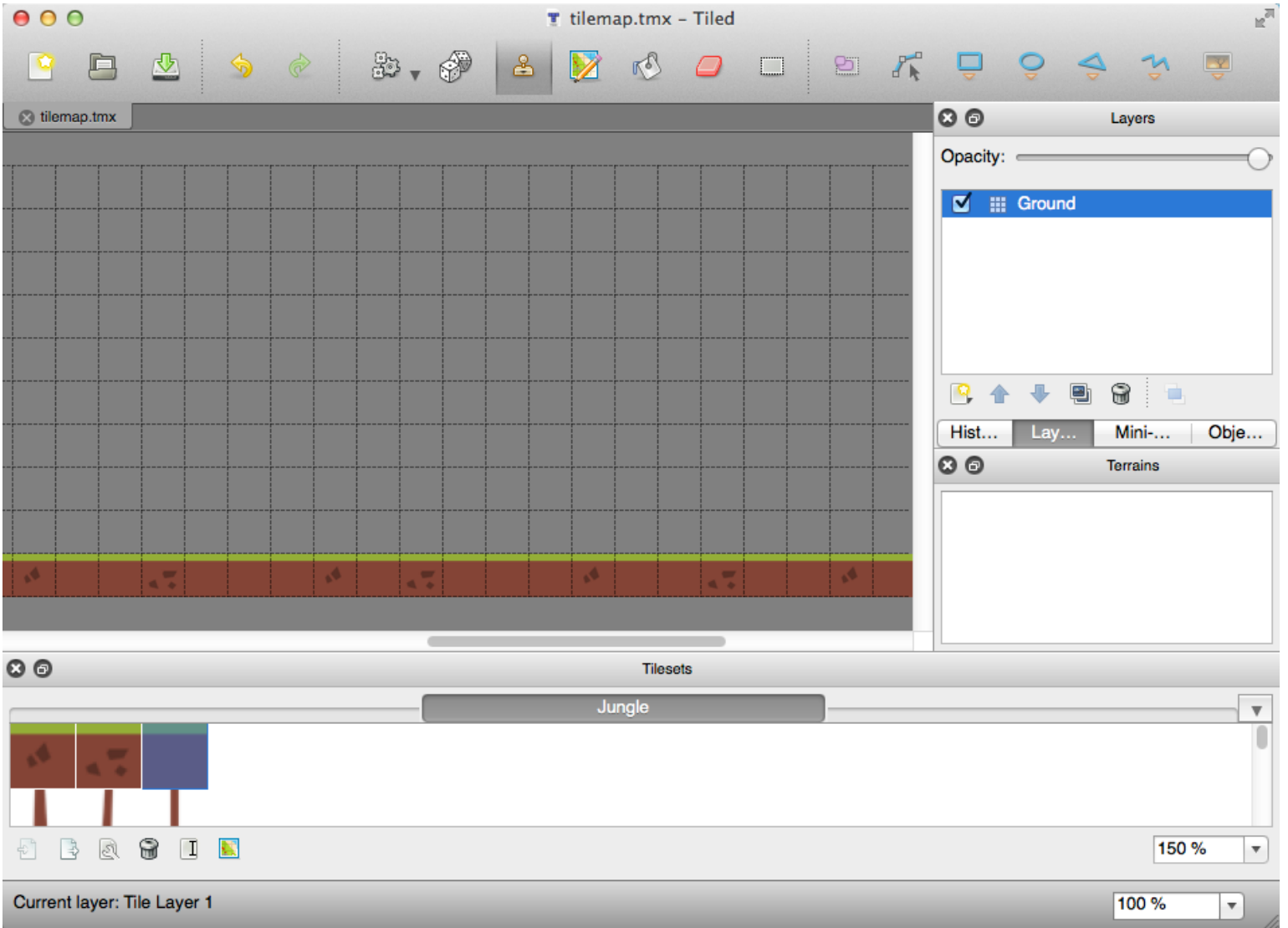
Spacing:

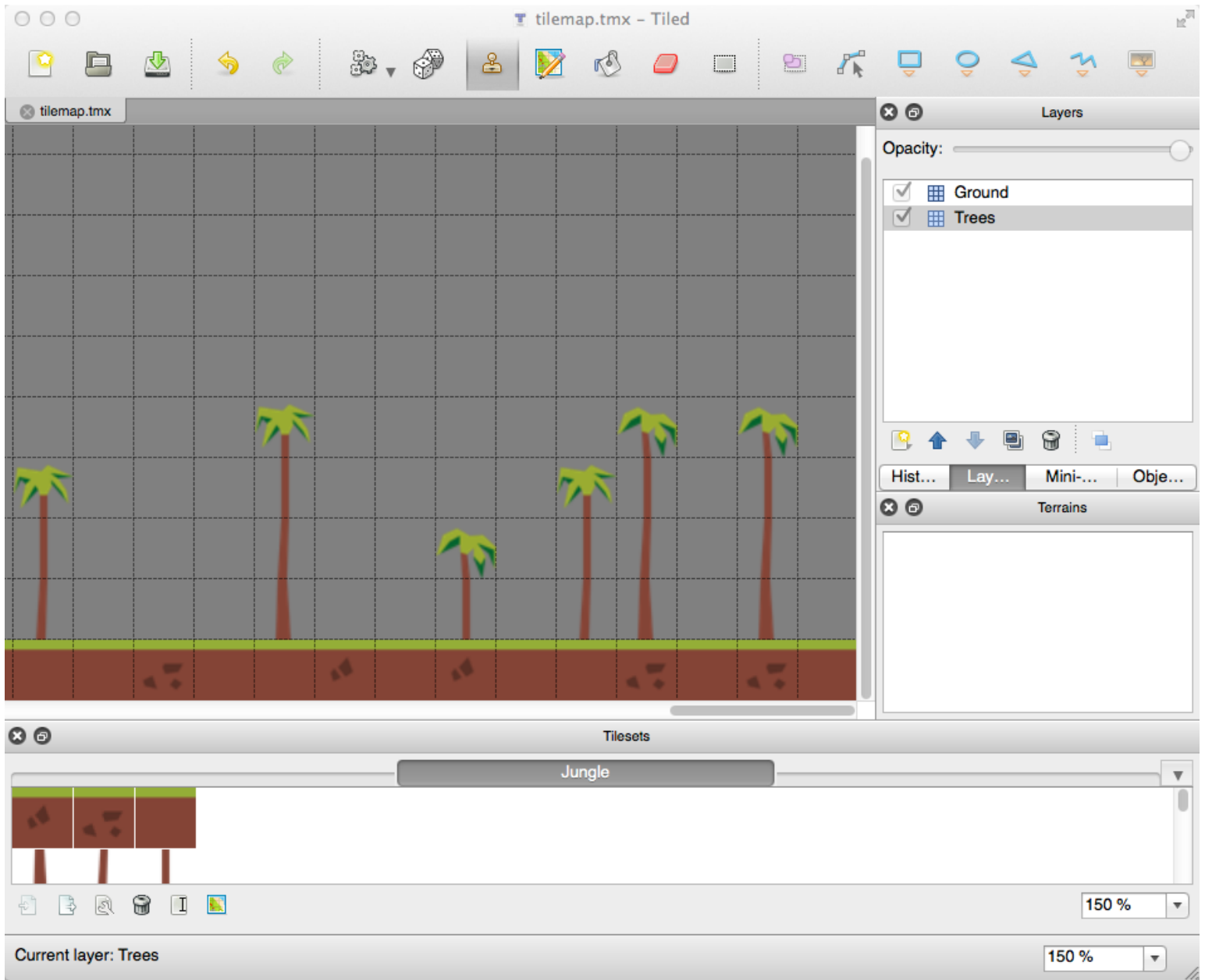
**Drawing Offset**

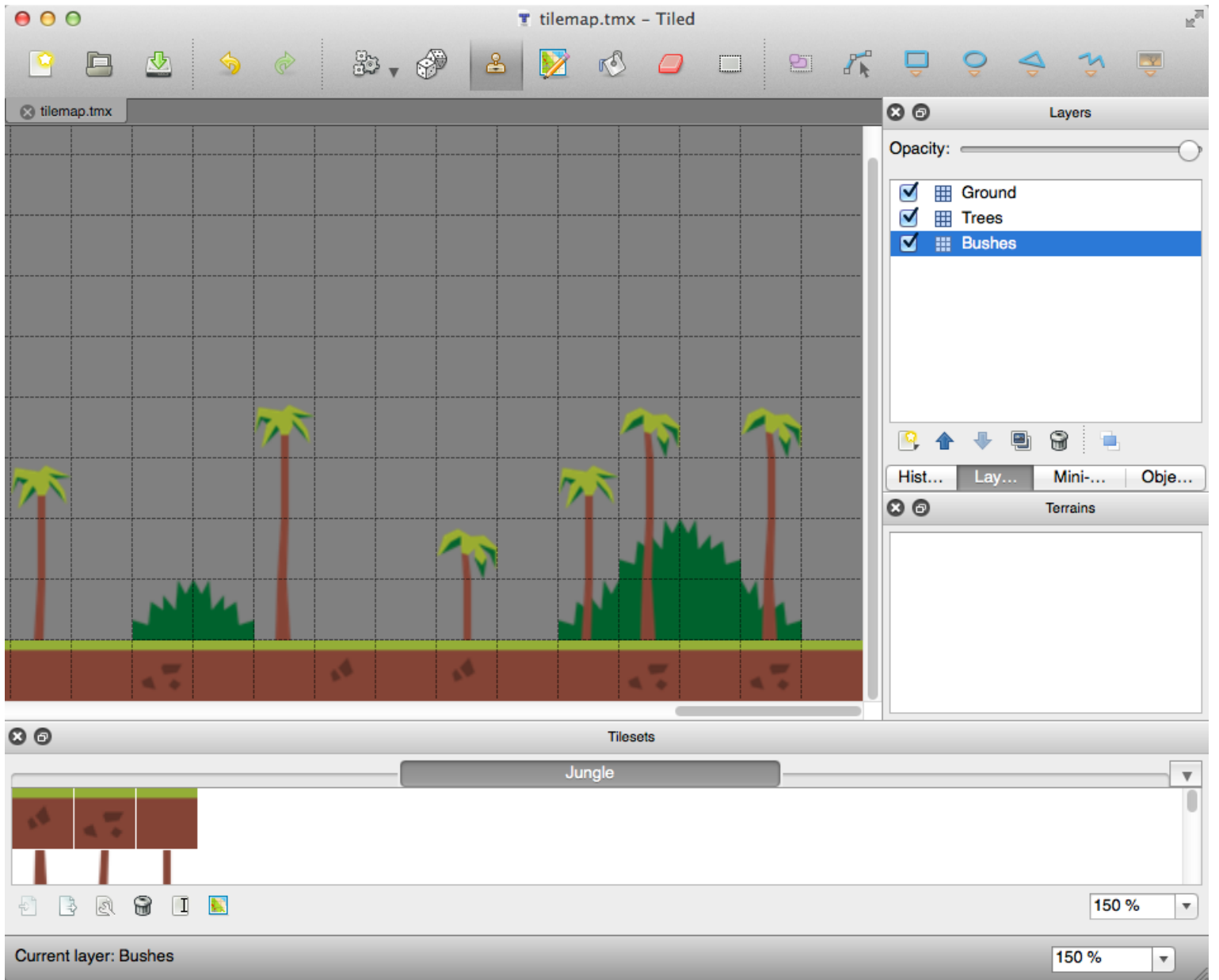
X:

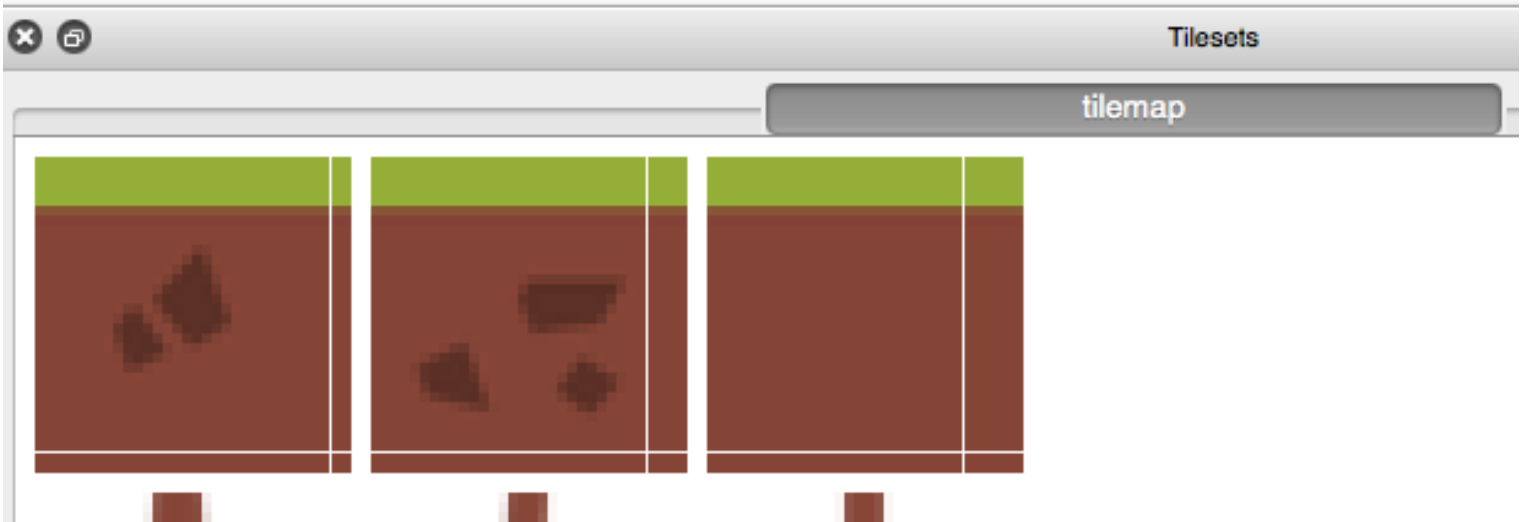
Y:











## Using the tile maps







## Confirm your App ID.

To complete the registration of this App ID, make sure your App ID information is correct, and click the submit button.

App ID Description: **CoconutFall**

Identifier: **8D4AYLXQVP.com.packtpub.coconutfall**

Data Protection:  Disabled

Game Center:  Enabled

iCloud:  Disabled

In-App Purchase:  Enabled

Inter-App Audio:  Disabled

Passbook:  Disabled

Push Notifications:  Disabled

Default Language

English



App Name

Coconut Fall Game



SKU Number

CoconutFall\_1



Bundle ID

CoconutFall - com.packtpub.coconutfall



You can register a new Bundle ID [here](#).

## Versions

### Current Version



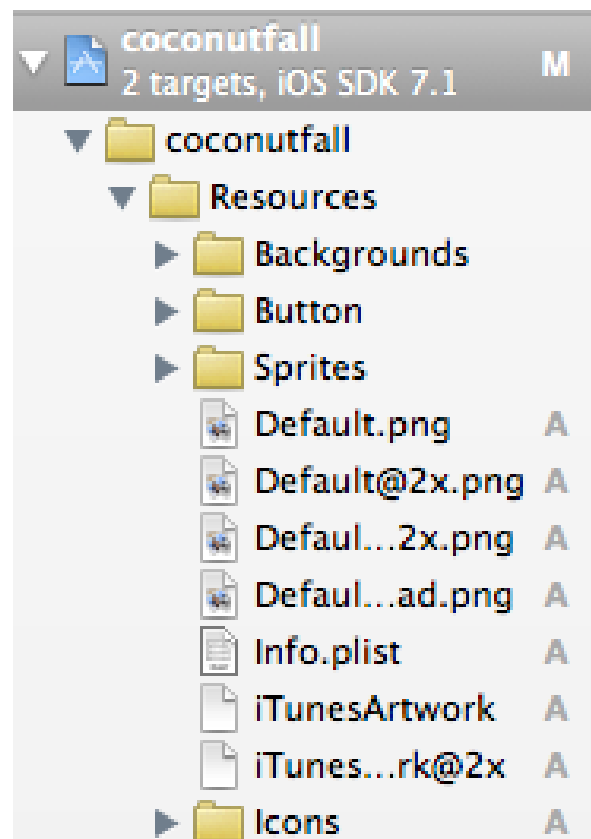
Version 1.0

Status Prepare for Upload

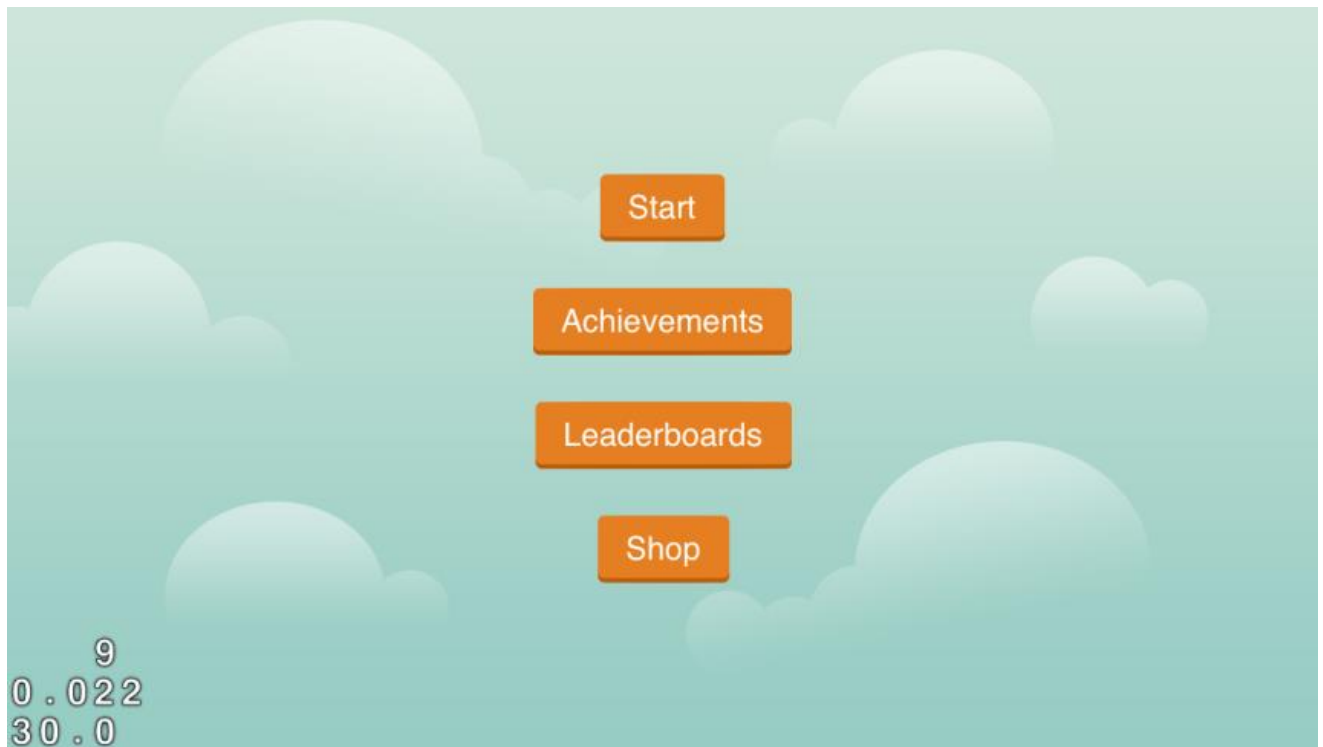
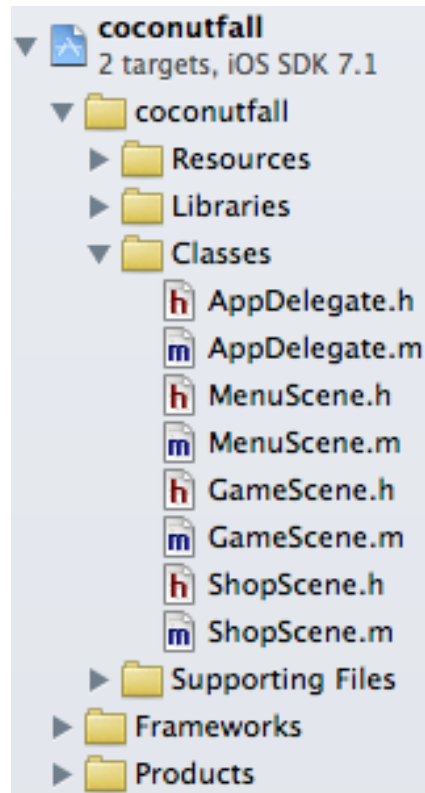
Date Created Mar 25, 2014

[View Details](#)

Product Name	<input type="text" value="coconutfall"/>
Organization Name	<input type="text" value="Kirill Muzykov"/>
Company Identifier	<input type="text" value="com.packtpub"/>
Bundle Identifier	<input type="text" value="com.packtpub.coconutfall"/>
Device Family	<input type="text" value="iPhone"/>









## Integrating Game Center

Leaderboard Reference Name  ?

Leaderboard ID  ?

Score Format Type  ?

Score Submission Type  Best Score  Most Recent Score ?

Sort Order  Low to High  High to Low ?

Score Range (Optional)  To  ?

Language  ?

Name  ?

Score Format  ?

Score Format Suffix (Singular)  ?

Score Format Suffix Plural  ?

Image (Optional)  ?

## Game Center

Game Center has been enabled for your app. Click below if you want to disable it.

Enabled

To share leaderboards and achievements of this app with other apps you have provided, move this app to a Game Center group.

Move to Group

## Leaderboards

### 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

Move All Leaderboards into Leaderboard Sets



Delete Test Data



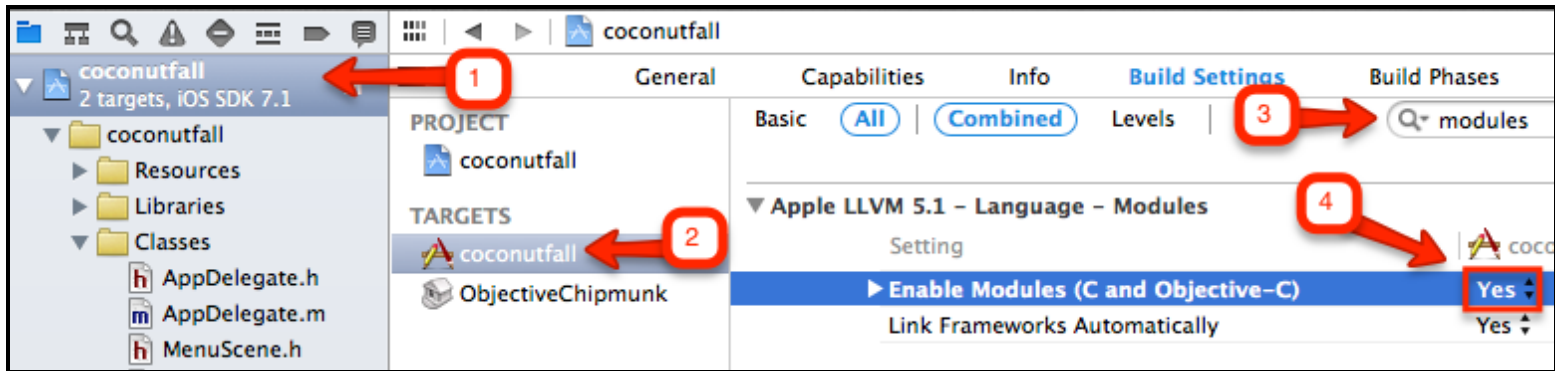
1 Leaderboard					Search
	Reference Name	Leaderboard ID	Type	Default	Status
	Highest Score	com.packtpub.coconutfall.leader...	Single	<input checked="" type="radio"/>	Delete

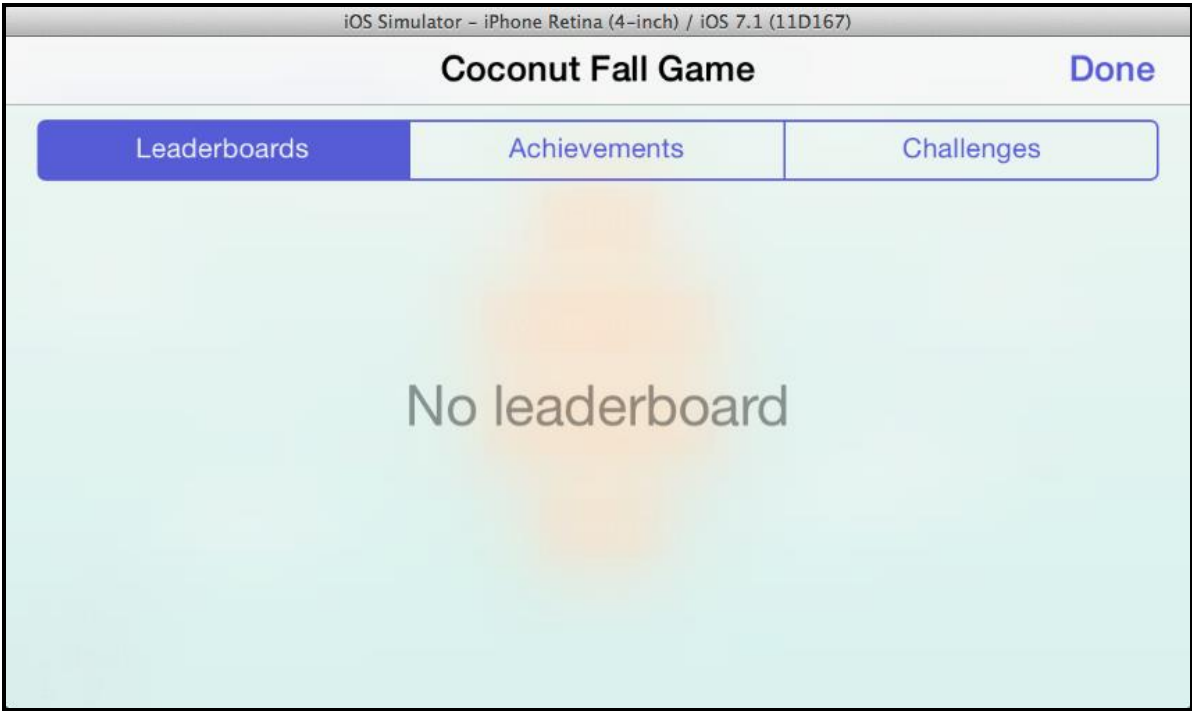
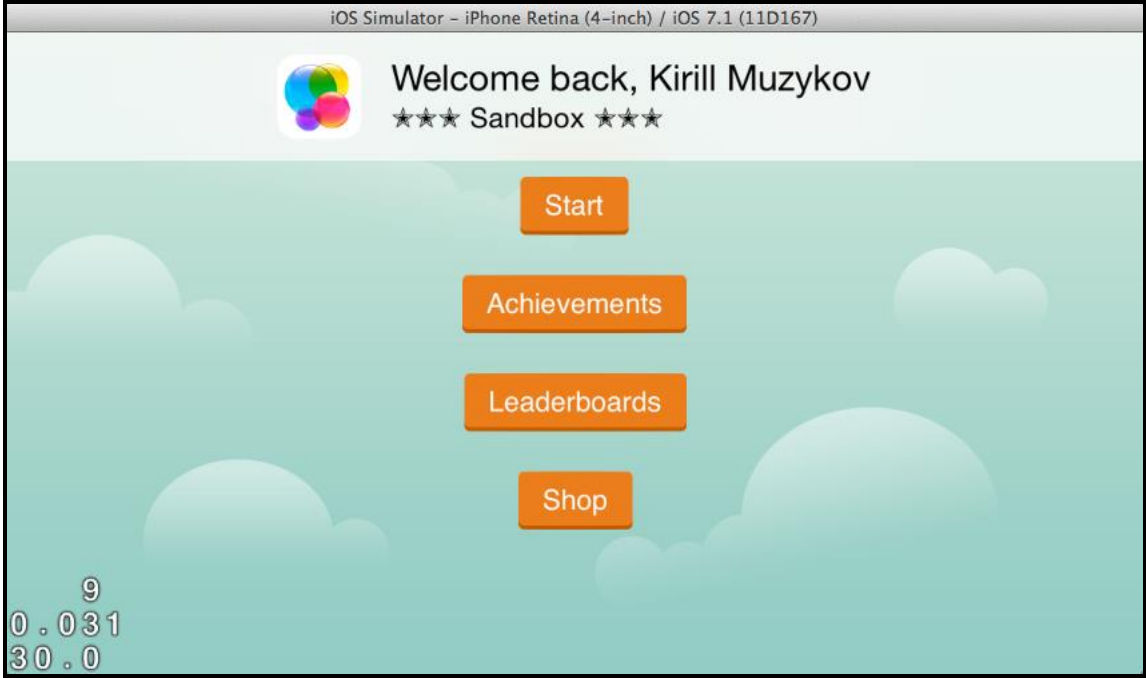
## Achievements

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

3 Achievements					Search
	Reference Name	Achievement ID	Points	Status	
	Hundred	com.packtpub.coconutfall.achievement.hundred	100	Delete	
	Wake Up	com.packtpub.coconutfall.achievement.wakeup	15	Delete	
	First Blood	com.packtpub.coconutfall.achievement.firstblood	10	Delete	





# Coconut Fall Game

Done

Leaderboards

Achievements

Challenges

1 Friend

1



Me

45 pts.

All 1 Player

1



Me

45 pts.



## First Blood!

You've hit your first coconut!



## Hundred

Score 100 points

5% completed

# Making in-app purchases

2 In-App Purchases				
Reference Name	Product ID	Type	Apple ID	Status
Double Lives	com.packtp...l.iap.doublelives	Non-Consumable	849676520	Waiting for Screenshot
Double Points	com.packtp...i.iap.doublepoints	Non-Consumable	849681200	Waiting for Screenshot



Back

## 2x Points

Get 2x points for every coconut!

## Double Lives

Double your lives!

9  
0.003  
60.0

Back

## 2x Points

Get 2x points for every coconut!

199,00 RUB

## Double Lives

Double your lives!

Purchased!

12  
0.003  
60.0