

SKTexture



An **SKTexture** is an object that holds an image that is used by **SKSpriteNodes** and **SKShapeNodes**

Each image used to create an **SKSpriteNode** is internally represented as an **SKTexture**



SKTexture



```
node = SKSpriteNode(texture: SKTexture)
```

1

1 You can create an **SKSpriteNode** by passing in a **SKTexture** in the constructor

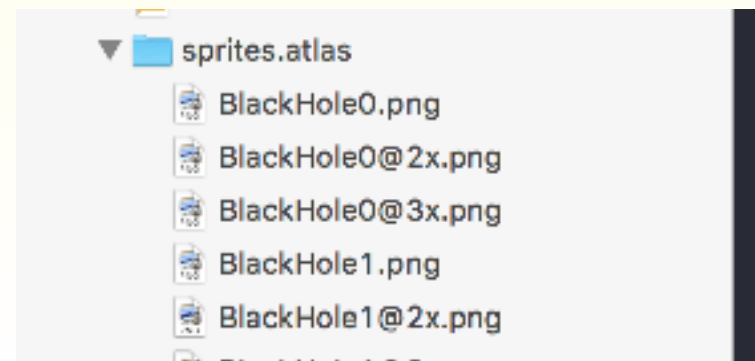
Texture Atlases



A **SKTextureAtlas** is a **collection of SKTexture objects** created from a texture atlas stored in application's resource bundle

Place your **image files** in a folder with a name that ends with **.atlas**

Xcode will notice the **.atlas extension** and automatically combine the images into a **texture atlas** at compile time



Texture Atlases



Spritekit is optimized to work with **texture atlases**

Using an atlas can **improve memory usage** and **rendering performance**



0



1



2



3



4

Texture Atlases



```
let textureAtlas = SKTextureAtlas(named: "sprites.atlas")
```

```
let frame0 = textureAtlas.textureNamed("Frame0")
```

```
let frame1 = textureAtlas.textureNamed("Frame1")
```

```
let frame2 = textureAtlas.textureNamed("Frame2")
```

```
let frame3 = textureAtlas.textureNamed("Frame3")
```

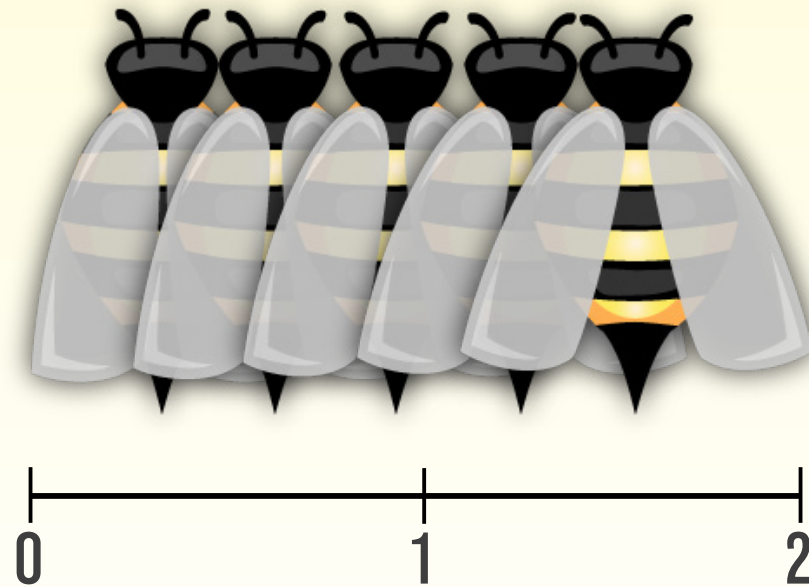
```
let frame4 = textureAtlas.textureNamed("Frame4")
```

```
let frameTextures: [SKTexture] = [frame0, frame1, frame2, frame3, frame4]
```

SKAction - Animations



```
let animate = SKAction.animate(with: frameTextures, timePerFrame: 0.4)  
node.run(animate)
```



SKAction - Animations



1

2

let **animate** = SKAction.**animate**(with: **frameTextures**, timePerFrame: **0.4**)

node.run(**animate**)

3

1 Pass in an array of **[SKTexture]** that the action will animate

2 Time in seconds of each frame to be displayed

3 Call a node's **run(_:)** method and **pass** it the action object

Sequencing Animations



```
let goombaWalk = SKAction.animate(with: walkTextures, timePerFrame: 0.2)
```

```
let goombaFall = SKAction.animate(with: fallTextures, timePerFrame: 0.2)
```

```
let goombaSequence = SKAction.sequence([goombaWalk, goombaFall])
```

```
goomba.run(goombaSequence)
```

