



Object
Partners
Inc.

Sprite Kit

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<https://github.com/jondejong/playme>

SpriteKit

- ❖ Benefits
- ❖ Drawbacks

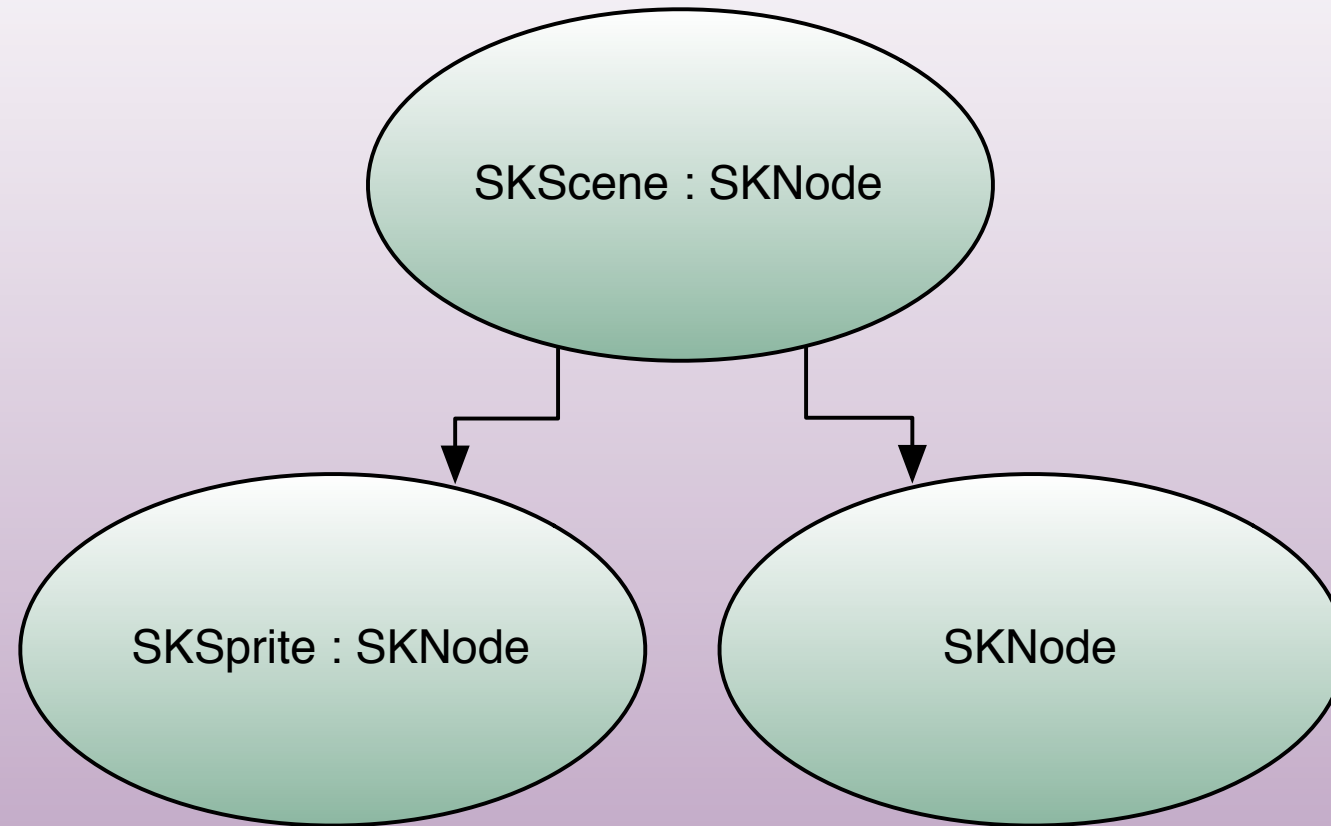
ViewController

SKView : UIView

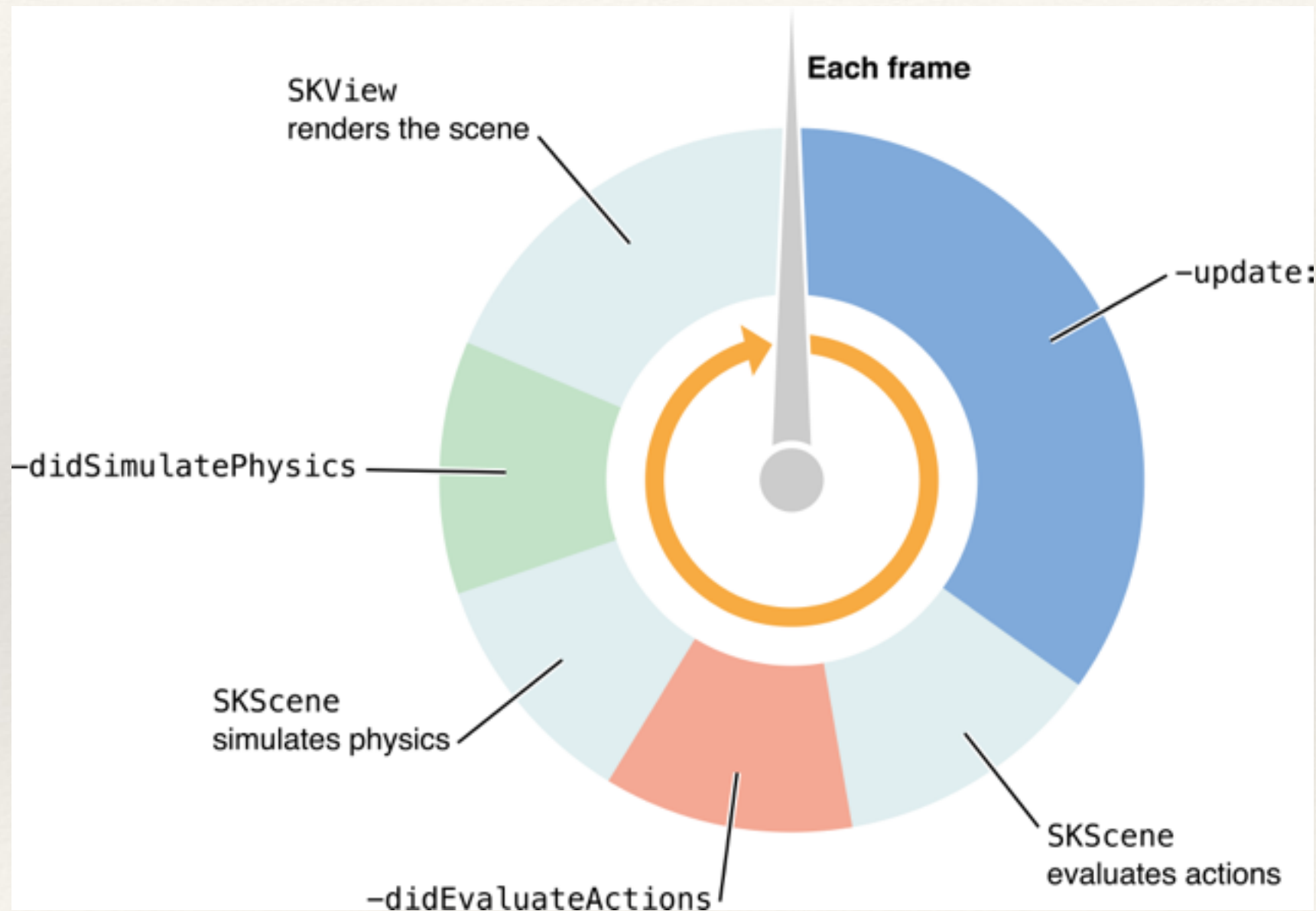
SKScene : SKNode

SKSprite : SKNode

SKNode



Scene Processing



Source: Apple Developer Docs

Demo 1

- ❖ Sprite basics
- ❖ Animations
- ❖ Scene Transitions
- ❖ Basic physics bodies

Demo 2

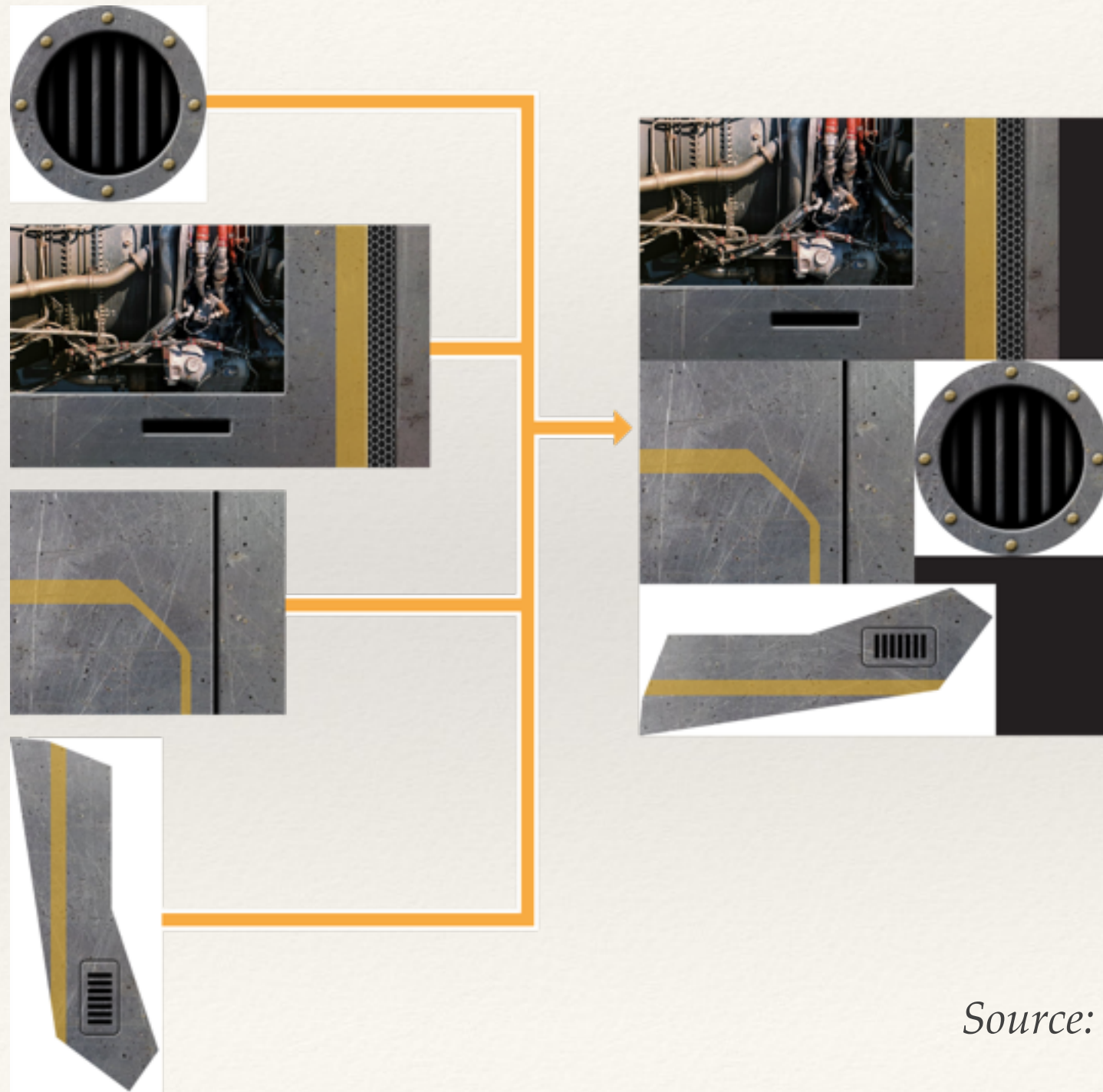
- ❖ Controlling a physics body with user input
- ❖ Labels
- ❖ Collision Handling

Demo 3

- ❖ More Storyboard integration
- ❖ UIKit integration

Demo 1

Texture Atlas



Source: Apple Developer Docs

PhysicsBody Types

- ❖ Volume-based Physics Bodies
 - ❖ `bodyWithCircleOfRadius:`
 - ❖ `bodyWithRectangleOfSize:`
 - ❖ `bodyWithPolygonFromPath:`
- ❖ Edge-based Physics Bodies
 - ❖ `bodyWithEdgeLoopFromRect:`
 - ❖ `bodyWithEdgeFromPoint:toPoint:`
 - ❖ `bodyWithEdgeLoopFromPath:`
 - ❖ `bodyWithEdgeChainFromPath:`

Physics Body Properties

- ❖ mass
- ❖ friction
- ❖ linearDamping
- ❖ angularDamping
- ❖ affectedByGravity
- ❖ allowsRotation
- ❖ restitution
- ❖ dynamic

Demo 2

Collision Detection

- ❖ Controlled with a series of bit masks
- ❖ categoryBitMask
 - ❖ Defines the physics body itself
- ❖ collisionBitMask
 - ❖ Defines what objects collide in the physics simulation
- ❖ contactTestBitMask
 - ❖ Defines which object contacts will fire a contact event

Moving Physics Bodies

- ❖ `applyForce:`
- ❖ `applyTorque:`
- ❖ `applyForce:atPoint:`
- ❖ `applyImpulse:`
- ❖ `applyAngularImpulse:`
- ❖ `applyImpulse:atPoint:`

Demo 3

Now go create the next Flappy Birds

Thank you!



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