

Core Animation

by Saam Barati

Get the Code:

`http://github.com/saambarati/iOS_Lecture`

What is Core Animation?

QuartzCore framework

Why Bother?

and when not to

CALayer

MVC?

Ways to Work with CALayer

delegation VS. subclassing

Rendering Architecture

Three parts:

Layer Tree

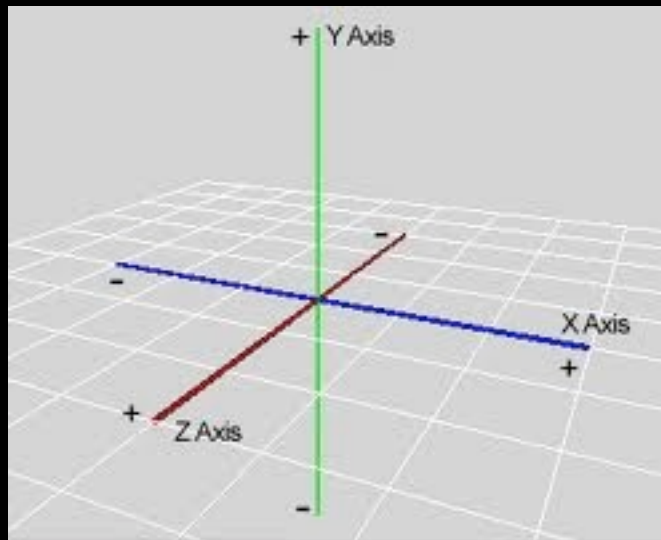
Presentation Tree

Rendering Tree (Private)

Threading

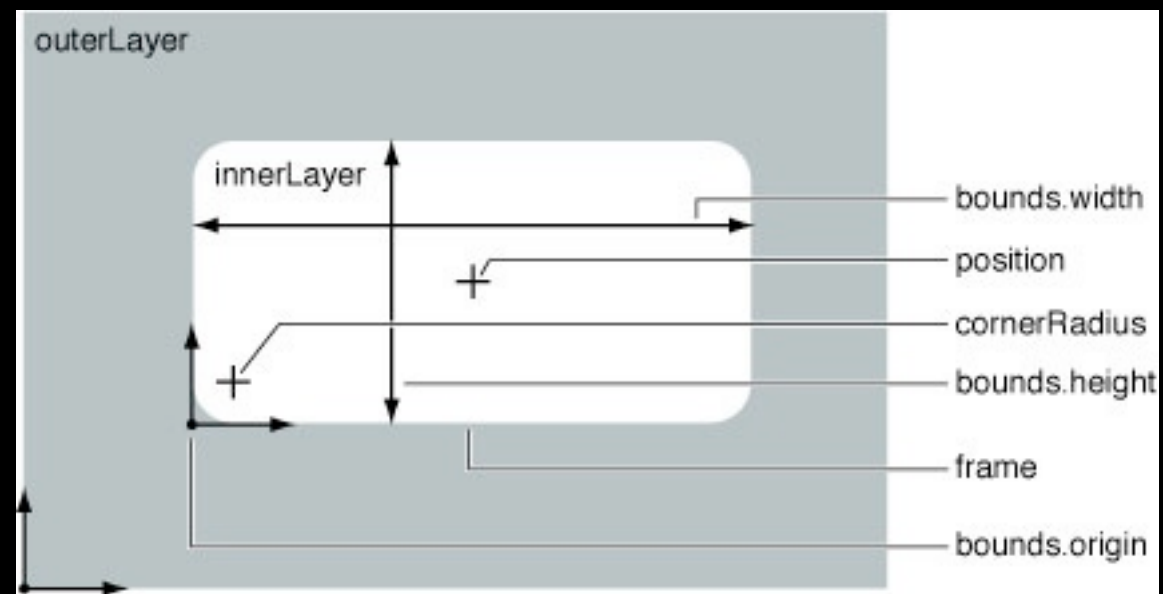
and performance

Layer Hierarchy



Layer Geometry

anchorPoint
position
transform
bounds
frame



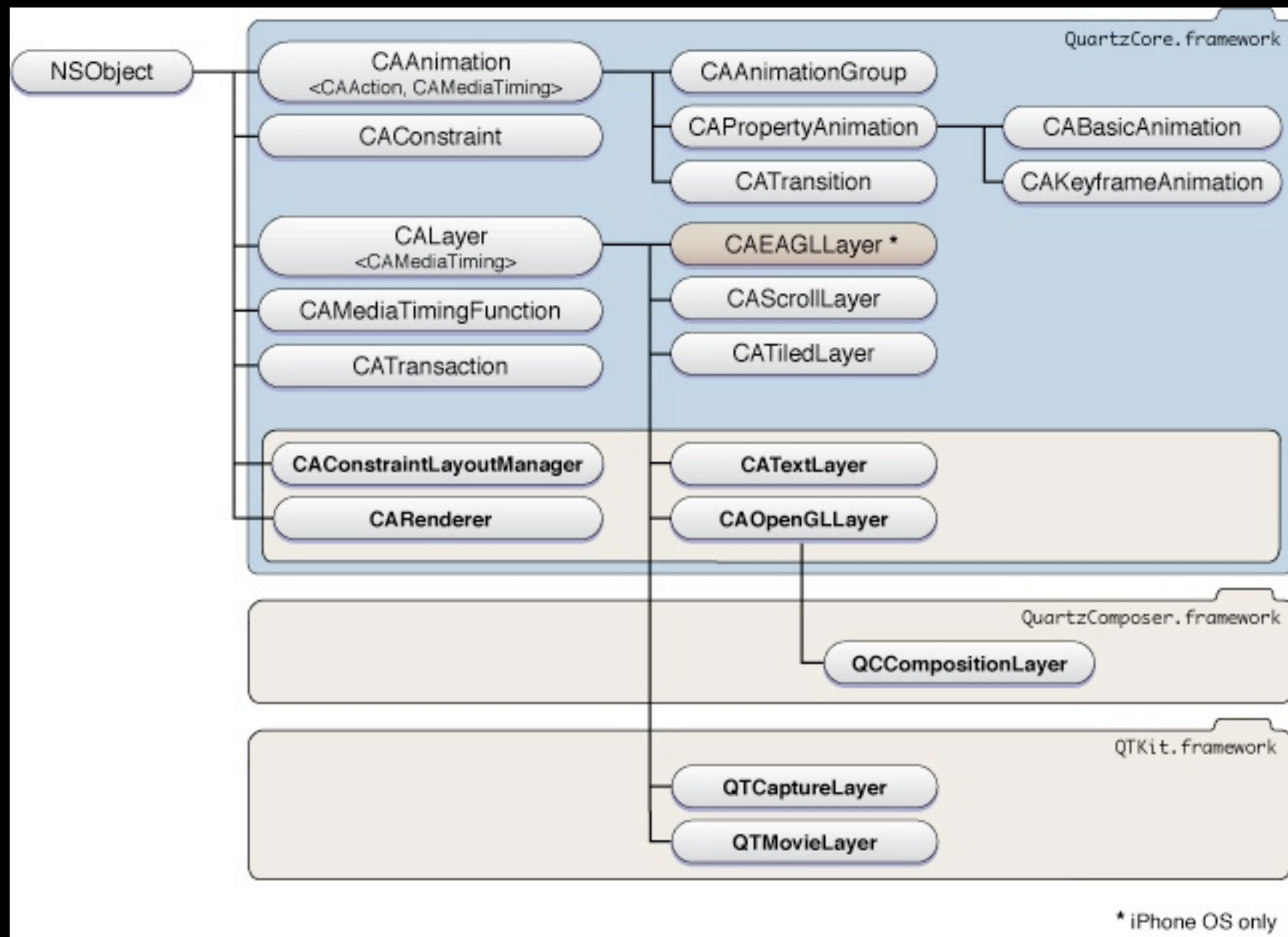
Animation Classes

`CABasicAnimation`

`CAKeyFrameAnimation`

`CATransition`

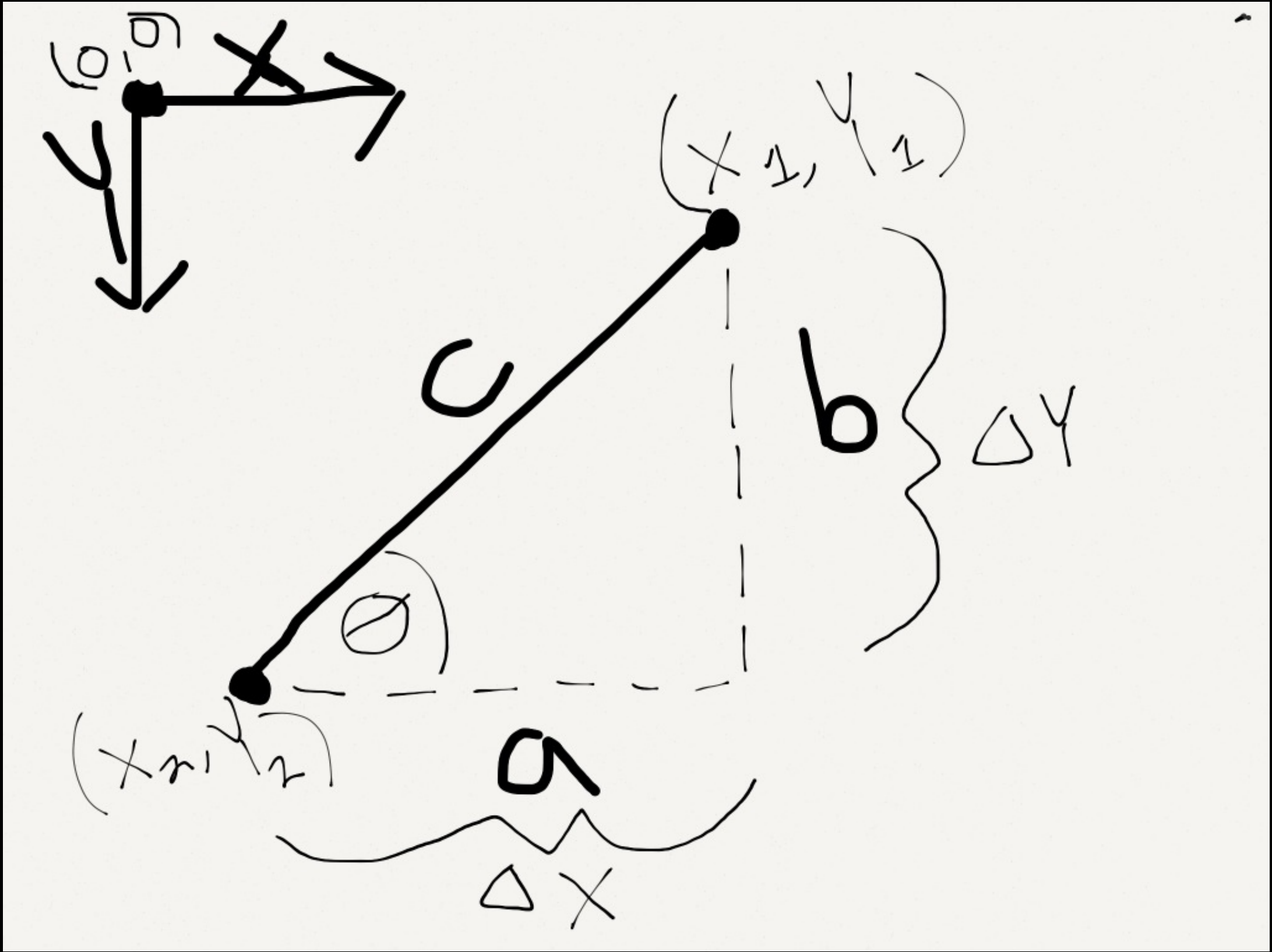
`CAAnimationGroup`



What we are Building

Geometry and Trigonometry

pythagorean theorem



$$\text{slope} = \frac{\Delta Y}{\Delta X} = \frac{b}{a}$$

$$\text{distance} = c = \text{sqrt}(a^2 + b^2)$$

$$\text{angle} \Rightarrow \tan(\text{theta}) = \frac{b}{a} = \text{slope}$$

therefor

$$\text{angle} = \arctan(\text{slope})$$

in radian

CAAnimation
CAPropertyAnimation
CAMediaTiming protocol

CABasicAnimation

fromValue

toValue

Wrapping Conventions

NSNumber

NSNumber

NSKeyValueCoding protocol

setValue:forKey:

setValue:forKeyPath:

valueForKey:

valueForKeyPath:

Gotchas

`fillmode`

`removedOnCompletion`

`cumulative`

Get in Touch

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