

# The iPhone Platform

Jack Nutting

[jacknutting@mac.com](mailto:jacknutting@mac.com)

[twitter.com/jacknutting](https://twitter.com/jacknutting)

rebisoft.com

IPHONE AND MAC OS X SOFTWARE AND CONSULTING

- Working with iPhone, Mac OS X, and their tech predecessors (OpenStep and NeXTStep) since 1994

- A few games of my own on the App Store

- Employed at Nordnet Bank building mobile apps

- Wrote “Learn Cocoa on the Mac” and “Beginning iPad Development for iPhone Developers”



- The iOS platform
- iOS Development
- the iPhone Developer Program
- App Store
- Closing Remarks

# The iOS Platform

# Hardware Baseline

- 320x480 display
- Geolocation (GPS, WiFi, cell tower)
- Sensors: accelerometer, touch-screen, microphone
- 3D hardware acceleration: OpenGL ES 1.1

# Hardware since 2009

- 640x960 display (iPhone 4)
- 1024x768 display (iPad)
- Compass
- Gyroscope (iPhone 4)
- 3D hardware acceleration: OpenGL ES 2.0

# Included Software

- Mobile Safari: world-class browser
- Automatic synchronizing with the cloud
- Solid OS with UNIX underpinnings
- Syncs with iTunes, easy to update

# People Like Apps

- 200,000 apps
- > 2 billion app downloads
- > 100 million users trained to buy software

“I used to think I  
pirated software  
because I was a  
cheapskate. Now I  
know I was just lazy.”

# OS Roadmap

- mid-2007: iPhone OS 1.0
- mid-2008: iPhone OS 2.0
- mid-2009: iPhone OS 3.0
- April 2010: iPhone OS 3.2 (iPad only)
- mid-2010: iOS 4.0 (iPhone)
- fall 2010: iOS 4.x (iPad)

# iOS Development

# Xcode & iPhone SDK

- Free (as in beer) high-level tools
  - Xcode, Interface Builder
- Free (as in speech) compiler tools
  - llvm, gdb

# Objective-C

- Object-oriented extension to C
- Inspired by Smalltalk
- Dynamic runtime similar to ruby, python
- Native apps require Objective-C
- People who “don’t like” Objective-C probably haven’t tried it

# Objective-C syntax

- Calling a method looks *nothing* like calling a function
- The Objective-C and C++ method-calling syntaxes are orthogonal

```
Gateway.callWebService("http://z.com/",  
2048, 2048, "orders", "123", "providers", "456");
```

```
gateway.callWebService("http://z.com/",  
    1024,  
    2048,  
    "orders",  
    "123",  
    "providers",  
    "456");
```

```
gateway callWebService:"http://z.com/"  
    port:1024  
    buffer:2048  
    authUser:"orders"  
    authPass:"123"  
    resource:"providers"  
resourceId:"456"];
```

```
gateway callWebService:"http://z.com/"  
    port:1024  
    buffer:2048  
    authUser:"orders"  
    authPass:"123"  
    resource:"providers"  
resourceId:"456"];
```

# CocoaTouch

- Objective-C frameworks
- General-purpose classes for strings, arrays, etc
- System classes for files, networking
- Accessing sensors (accelerometer, GPS, etc)
- UIKit for GUI
- Core Graphics / Animation / Audio

# Other APIs

- OpenGL ES
- OpenAL
- C/C++
- Web Standards HTML5, CSS, JS
- 3d-party: cocos2d, three20, etc

# Getting Started

- Get a Mac
- Register at [developer.apple.com](https://developer.apple.com)
- Download iPhone SDK
- Sign up for iPhone Developer Program  
(it may take some time)
- Start coding, using Simulator to run

# iPhone Developer Program

# Get with the program

- Costs \$99 per year
- Gives you ability to create certificates
- Development certificates for your devices
- Ad Hoc Distribution for testers and friends
- App Store Release
- Developer Forums

# App Store

- Hundreds of thousands of apps
- Categories and Subcategories, all full of new entries all the time
- Top sellers in each category are prominently displayed
- Apple can pick some winners “New & Noteworthy”, “What we’re playing”

# App Store

- Apple handles all CC stuff, gives you 70%
- Think about prices!
- Monthly payments for each region exceeding threshold
- Horror stories
- Delays!
- Business model

@#(\$!

# submission process



Waiting for review

# Submit to App Store

- Truth: it's not that bad
- 95% of submissions approved in < 1 week
- Reasons for rejection are usually clearly stated and sensible

# Submission

- Be prepared to wait for finalization of your paid contract
- Post-date your app's first release

# Submitting Updates

- Waiting game all over again.

# Tracking Sales

- Daily reports
- Monthly reports
- Use AppViz

# paid

- Ads in apps
  - iAd, Google, adMob, mobClix
- In-app purchasing

# Think Virally

- Make it easy for users to connect to Twitter and Facebook
- For games: Leaderboards, achievements, challenges
- Use Push Notifications to keep people engaged

# Design for Mobile

- Keep it simple
- Focus on your app's core value proposition
- Make common tasks simple, other tasks possible (within reason)
- Eliminate unreasonable tasks

Jack Nutting

[jacknutting@mac.com](mailto:jacknutting@mac.com)

[twitter.com/jacknutting](https://twitter.com/jacknutting)

rebissoft.com

IPHONE AND MAC OS X SOFTWARE AND CONSULTING