

iOS and Android development with Unity3D

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Who am I?

FLARB

Game Development, Design, Consulting & Distribution



The Platform Problem



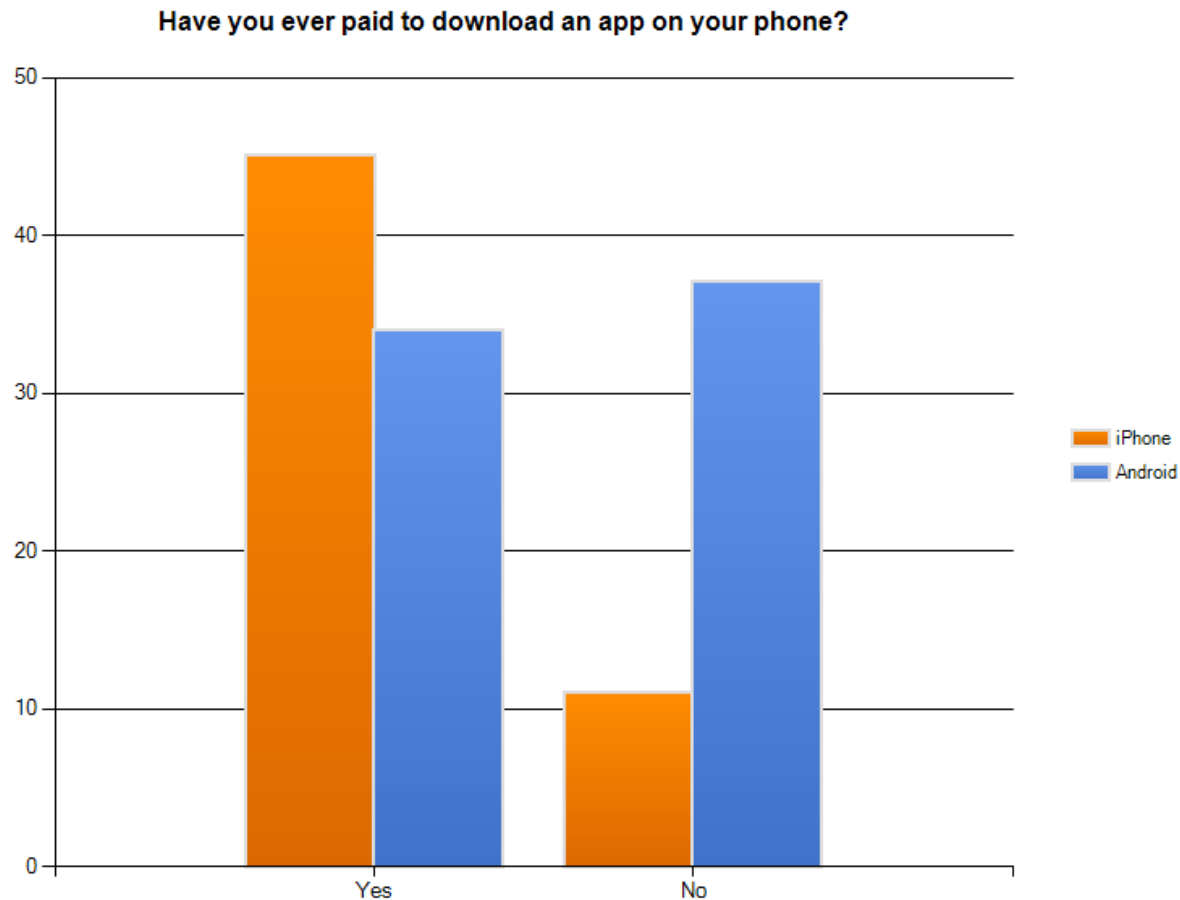
ANDROID

Why bother with Android?



ANDROID

The Android Customer



Future Platform Shifts



Choosing A Solution

- Most Platforms With Least Code
- Licensing Model That Won't Eat Margins
- Broad Community Support

HTML5

- HTML5 Frameworks
 - PhoneGap
 - GameSalad
 - Game Closure, AppMobi, etc.
- HTML5 Still Sucks
 - Horrible performance
 - Gated by mobile browsers



Cocos2d

- Cocos2d-X
 - Straight C++ version of Cocos2d
 - Great 2D library, widely used
 - Amazing updates and support
 - No web support



Unreal Developer's Kit

- UDK
 - Don't need a Mac!
 - Much better renderer (As of Unity 3.5)
 - Platform-specific features from Epic only
 - 25% of your revenue to Epic



Cross Platform Options: Misc.

- Others
 - Titanium Studio
 - Corona
 - Flash



Why I Chose Unity3D: Tech

- Best support for critical platforms
 - Mobile (iOS, Android)
 - Web (NaCL, Flash, Web Player)
 - Desktop (Steam, Mac App Store)
 - Console



Tech

- Native Plug-ins
 - Can support any platform-specific functionality
 - Amazon App Store
 - OpenFeint
 - Write your own plug-in for whatever you need



Support

- Awesome forums
- Awesome feedback from support
- Twitter!



Asset Store

The screenshot displays the GDC Asset Store interface. At the top, there's a navigation bar with 'Asset Store' and 'Account' links. The main content area features a large featured asset, 'Autumnal Nature Pack', which includes a detailed description of its contents (3D models, textures, audio, etc.) and a list of features. Below this, there are four smaller asset cards: 'Tidy Tile Mapper', 'Cartoon FX Pack 1', 'Tile Based Map and Nav', and 'Uni2D'. To the right of the main content, there's a sidebar with a search bar, a 'Categories' list, and a 'Top Paid' list. At the bottom, there's a 'Most Popular' section with a row of assets including 'NGUI: Next-Gen UI', 'Playmaker', and '2D Toolkit'.

Autumnal Nature Pack
3D Models/Environments
Michael O.
★★★★★

Package to create the perfect autumn (and not only) sceneries. High-quality package contains:

- 36 fully editable trees and bushes
- 10 other plants (corn, flowers, etc)
- 33 textures of bark, leaves and branches
- 55 additional objects (walls, buildings, park elements etc.)
- 18 textures of grass
- 14 high-quality ground textures
- 9 types of rocks and boulders
- 7 autumn skyboxes
- 7 particles (leaves, flies, fog etc.)
- 5 high quality demo scenes

watch on YouTube
email

TIDY Tile Mapper
Editor Extensions/Design
Doppler Interactive
★★★★★

CARTOON FX PACK 1
35+ PARTICLES
DESKTOP & MOBILE OPTIMIZED
Particle Systems
Jean Moreno
★★★★★

Tile Based Map and Nav
Editor Extensions/Design
PL Young
★★★★★

Uni2D
Editor Extensions
Bento-Studio
★★★★★

Most Popular

- NGUI: Next-Gen UI
★★★★★
\$95.00
- 50% off
Playmaker
★★★★★
\$45.00
- 2D Toolkit
★★★★★
\$65.00

Categories

- Home
- 3D Models
- Textures & Materials
- Audio
- Complete Projects
- Editor Extensions
- Scripting
- Particle Systems
- Services

Top Paid

1. NGUI: Next-Gen UI
Scripting/GUI
2. Cartoon FX Pack
Particle Systems
3. Ultimate FPS Camera
Scripting
4. Android Game Examples
Complete Projects/Templates
5. Playmaker
Editor Extensions/Visual Scripting
6. Cartoon FX Pack 2
Particle Systems
7. Tidy Tile Mapper
Editor Extensions/Design
8. 2D Toolkit
Editor Extensions
9. Script Inspector
Editor Extensions/Utilities

Business Model

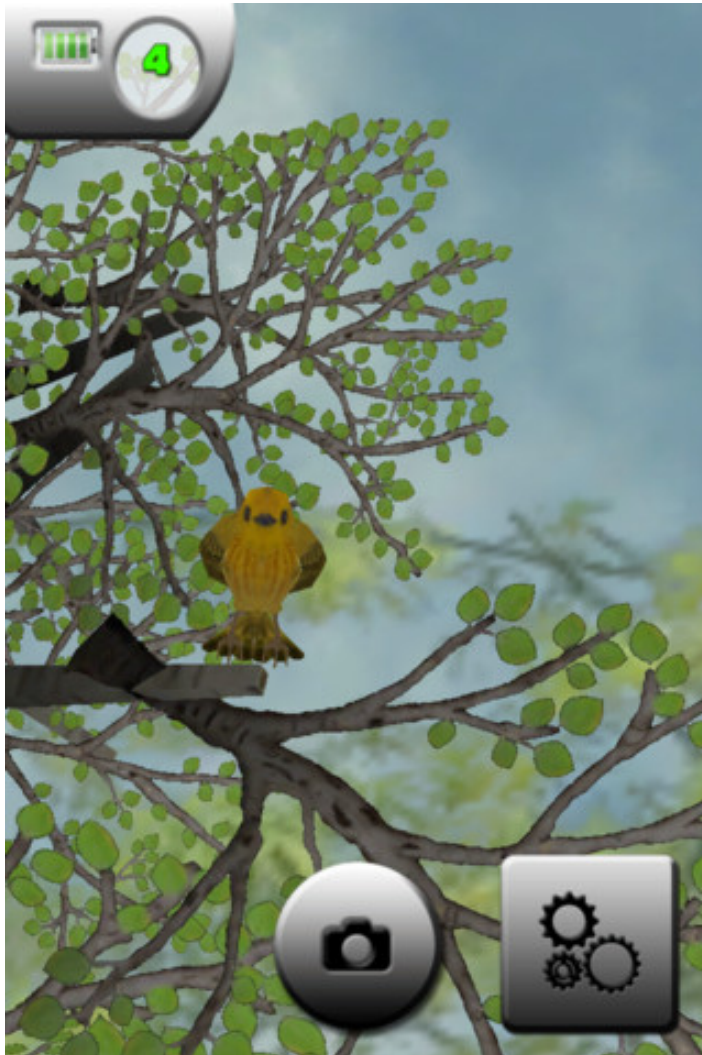
- Business Model
 - Flat fee per-seat
 - No rev-share



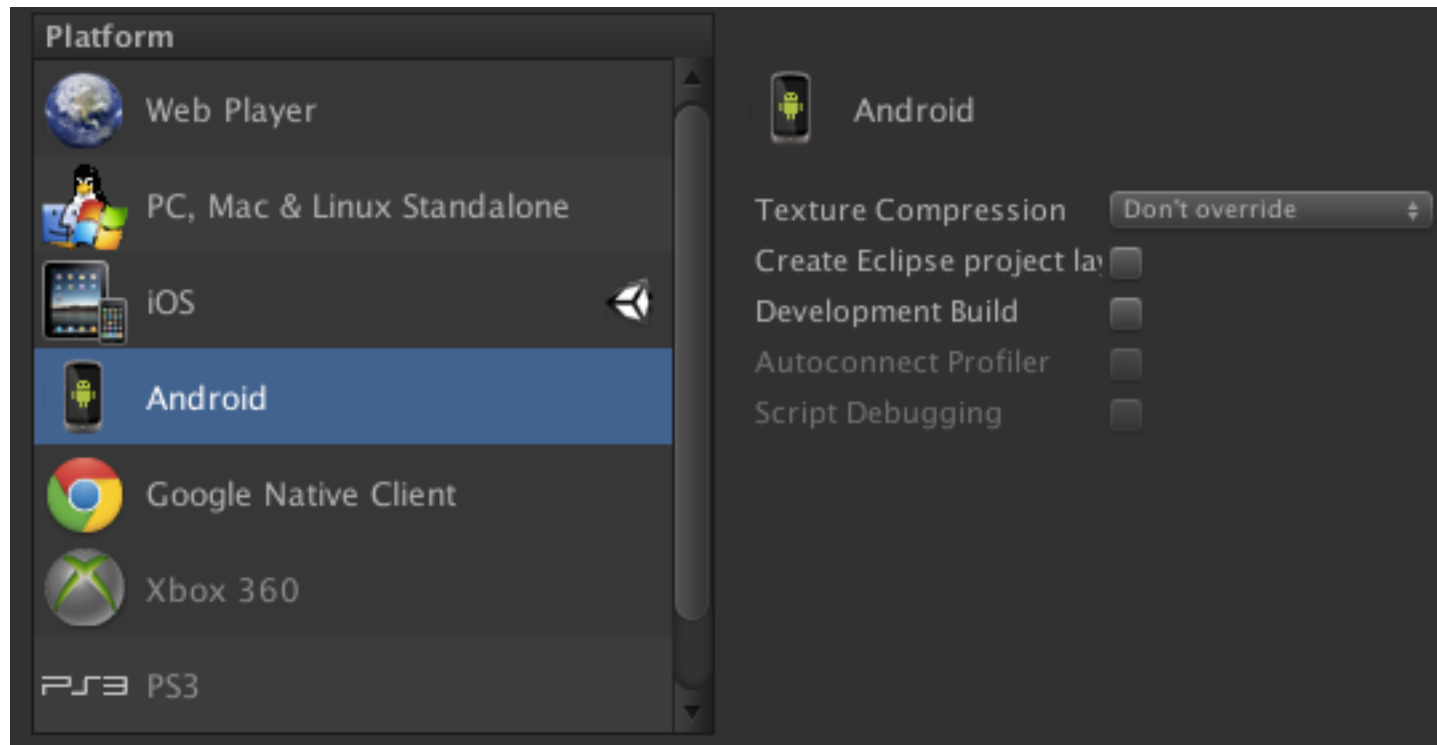
Brick Buddies



Camera Birds



iOS to Android with Unity3D



Plug-ins

- Used mostly cross-platform plug-ins
- Access platform specific features (Game Center etc.)

prime
[31]

Platform Specific Code

- Only spent a few days of re-factoring
- Swapped out iOS plug-ins for Android
- Combination of runtime platform checks and #IF compiler directives
- AndroidJavaClass!

AndroidJavaClass

```
AndroidJavaObject activity = new  
AndroidJavaClass("com.unity3d.player.UnityPlayer").GetStatic<And  
roidJavaObject>("currentActivity")
```

```
mWindowManager =  
activity.Call<AndroidJavaObject>("getSystemService", "window");
```

```
mConfig =  
activity.Call<AndroidJavaObject>("getResources").Call<AndroidJav  
aObject>("getConfiguration");
```

Screen Sizes

- iOS has 3 aspect ratios to deal with
- Made interface work in “safe zone”
- For Android’s common 16:10 ratio, scaled NGUI interface to fit

Performance and Testing

android.hardware.touchscreen
android.hardware.touchscreen.multitouch
android.hardware.wifi

This application is available to over 1125 devices.
1 device is manually filtered.

[Show devices](#)

Unity's Android Test Devices

Unity at SIGGRAPH 2012:

- Nexus One (Adreno 205)
- Samsung Galaxy S 2 (Mali 400)
- Nexus S / Galaxy Nexus (SGX 540)
- Motorola Xoom (Tegra2)

Cross Platform Export Tools

- Per-Platform Asset Settings
 - Compression settings
 - Filtering
- Cache Server
- Multi-Platform Toolkit
 - Platform-specific assets
 - Build-time asset changes

In Summary

- Best Business Model
- Widest Platform Support
- Best Community Support
- Dead Simple Porting Process

Thanks

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