

Cocos2d-xで作る物理演算ゲーム

～ 環境構築編 ～

= 2015年08月7日 =



今回はCocos2d-x **3.7**を入れて、
「AngryChicken」プロジェクトを作るところまで

前提環境

Xcode 6.4

Android 開発環境

mac os

導入するモノ

Android NDK r10e

Python 2.7.9

cocos2d-x 3.7

Android環境を入れてない方は

ぎじゅつめも

<http://wiki.xsqi.net/index.php?FrontPage>

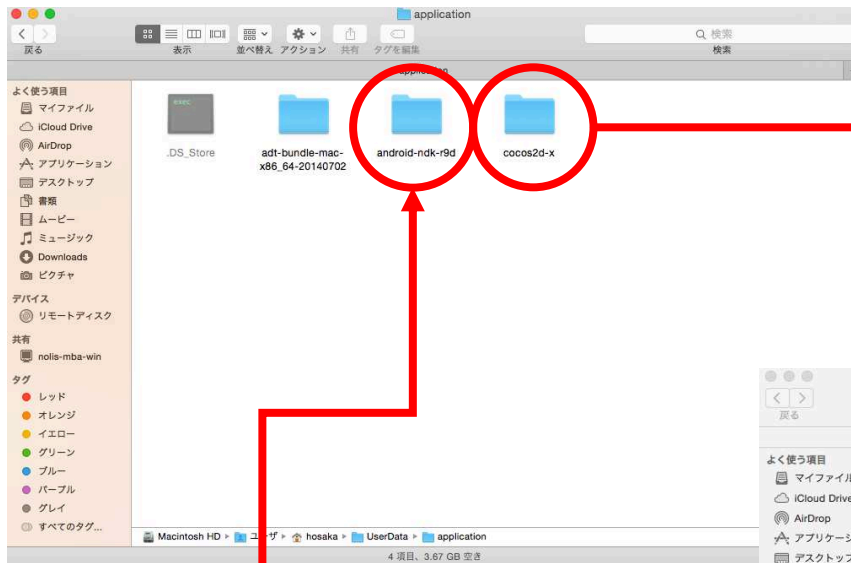
**Android項目にある開発環境構築を参考に
構築しておきましょう。**

ただし

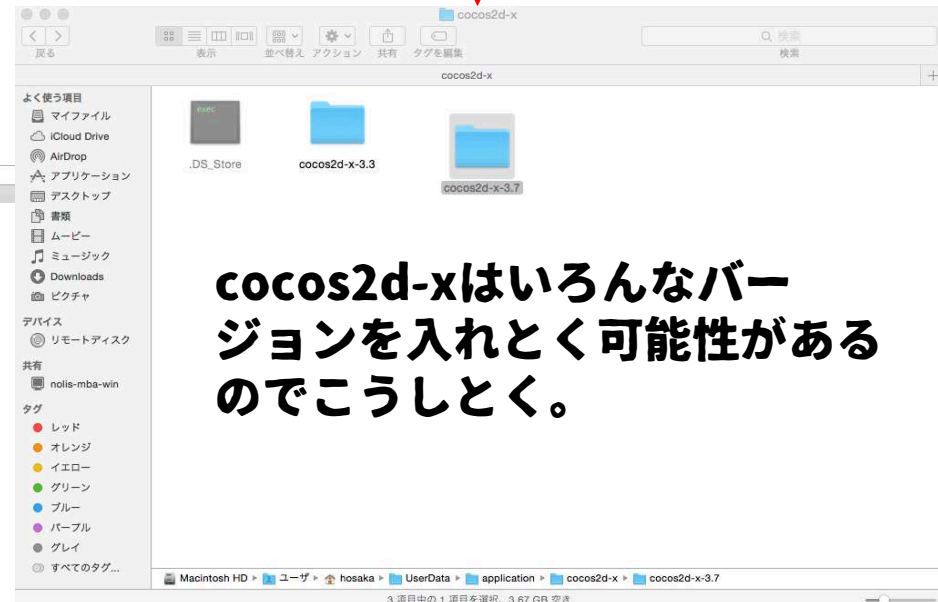
Android NDK と Pythonは、前述した「導入するモノ」と、キャプチャ画像とでは一部表記バージョン違いがありますが、脳内変換してください。

最終的なフォルダ構成

hosaka/UserData/applicationフォルダを作り以下のように配置



Android NDK...



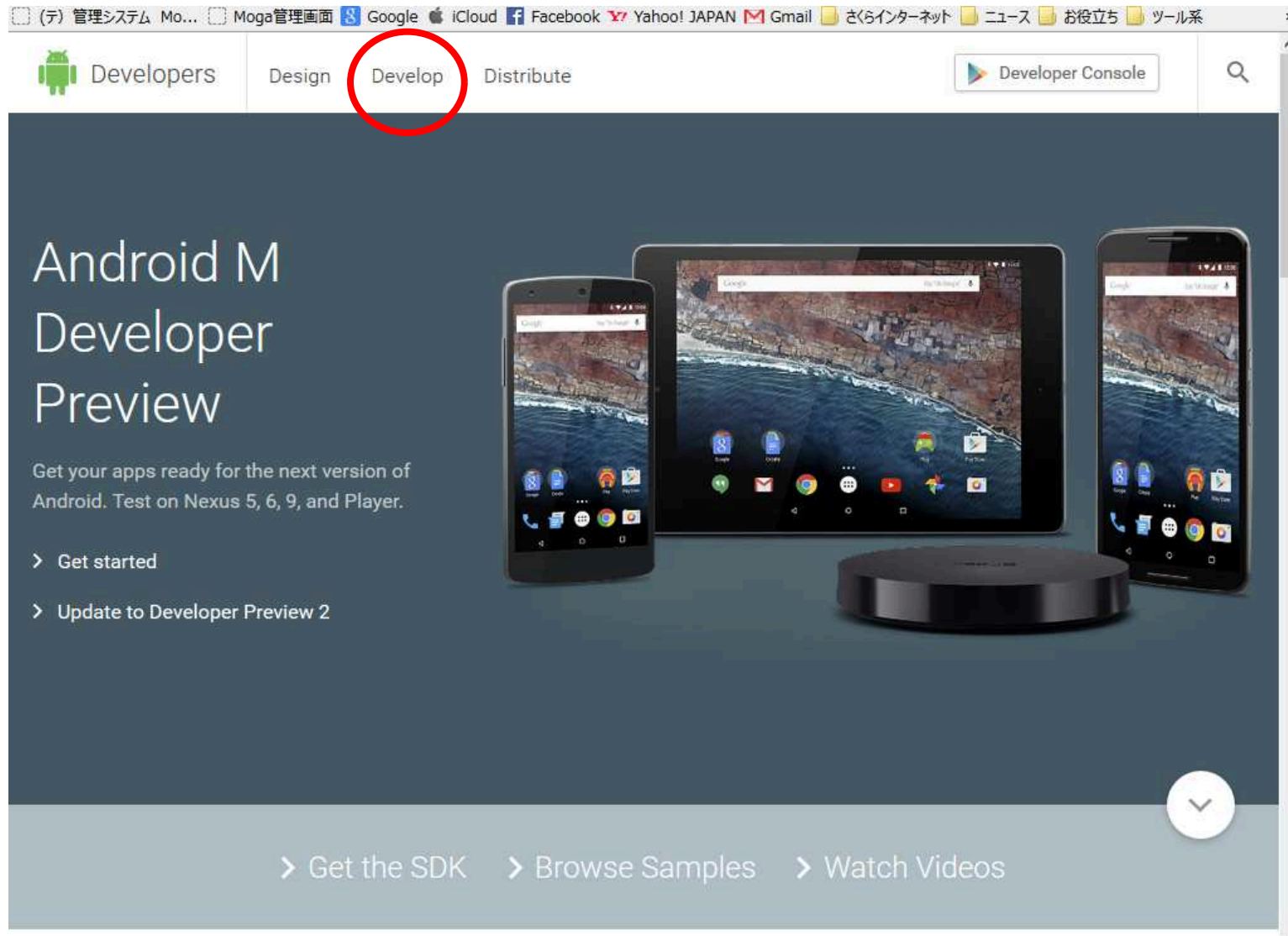
Android NDK r10e

(Android Native Development Kit)

**Androidアプリケーションの一部または全部を
C/C++言語で開発するためのキットです。**

**ダウンロードし解凍後、
フォルダを配置するだけ**

https://developer.android.com/index.html



The image shows a browser window displaying the Android Developer website. The browser's address bar shows the URL `https://developer.android.com/index.html`. The website's navigation bar includes the Android logo, the word "Developers", and three tabs: "Design", "Develop", and "Distribute". The "Develop" tab is circled in red. To the right of the navigation bar is a "Developer Console" button and a search icon. The main content area features a large banner for "Android M Developer Preview". The banner text reads: "Android M Developer Preview" in large white font, followed by "Get your apps ready for the next version of Android. Test on Nexus 5, 6, 9, and Player." Below this text are two links: "> Get started" and "> Update to Developer Preview 2". The banner also features images of three Android devices (two smartphones and one tablet) displaying the Android M interface, and a black Nexus Player device. At the bottom of the banner, there are three links: "> Get the SDK", "> Browse Samples", and "> Watch Videos". A white circular button with a downward arrow is located in the bottom right corner of the banner area.



Developers

Design

Develop

Distribute



Developer Console



Training

API Guides

Reference

Tools

Google Services

Samples

Preview

Download

Installing the SDK

Adding SDK Packages

Android Studio

Workflow

Tools Help

Build System

Performance Tools

Testing Tools

Support Library

Data Binding Library

Revisions

NDK



Android Studio

The official Android IDE

- Android Studio IDE
- Android SDK tools
- Android 5.0 (Lollipop) Platform
- Android 5.0 emulator system image with Google APIs

DOWNLOAD ANDROID STUDIO FOR WINDOWS



- [System Requirements](#)
- [Other Download Options](#)
- [Migrating to Android Studio](#)
- [Take a Survey](#)

Download 

Android Studio 

Workflow 

Tools Help 

Build System 

Performance Tools 

Testing Tools 

Support Library 

Data Binding Library

Revisions 

NDK

Eclipse with ADT 

Android NDK

The NDK is a toolset that allows you to implement parts of your app using native-code languages such as C and C++. Typically, good use cases for the NDK are CPU-intensive applications such as game engines, signal processing, and physics simulation.

Before downloading the NDK, you should understand that **the NDK will not benefit most apps**. As a developer, you need to balance its benefits against its drawbacks. Notably, using native code on Android generally does not result in a noticeable performance improvement, but it always increases your app complexity. In general, you should only use the NDK if it is essential to your app—never because you simply prefer to program in C/C++. When examining whether or not you should develop in native code, think about your requirements and see if the Android framework APIs provide the functionality that you need.

 [> NDK Documentation and Downloads](#)

Get news & tips



Blog Support





Android NDK

The Android NDK is a toolset that lets you implement parts of your app using native-code languages such as C and C++. For certain types of apps, this can help you reuse existing code libraries written in those languages.

> [Get Started](#)

```
public class MyActivity extends Activity {  
    /**  
     * Native method implemented in C/C++  
     */  
    public native void computeFoo();  
}
```

Latest



Downloads

Revision History

NDK Downloads

Select, from the table below, the NDK package for your development platform. For information about the changes in the newest version of the NDK, see [Release Notes](#). For information about earlier revisions, see [NDK Revision History](#).

Downloading

Platform	Package	Size (Bytes)	MD5 Checksum
Windows 32-bit	android-ndk-r10e-windows-x86.exe	396563176	1a82445baaf62aec3a46386ab1e5772c
Windows 64-bit	android-ndk-r10e-windows-x86_64.exe	419616132	8412bb4991a95e08fda50b5a44d95df7
Mac OS X 64-bit	android-ndk-r10e-darwin-x86_64.bin	388937326	2cb8893a5701603519d38a7e04c50e81
Linux 32-bit (x86)	android-ndk-r10e-linux-x86.bin	394281908	c3edd3273029da1cbd2f62c48249e978
Linux 64-bit (x86)	android-ndk-r10e-linux-x86_64.bin	401522849	19af543b068bdb7f27787c2bc69aba7f

Extraction

The NDK package is a self-extracting binary. To unpack it, follow the procedure for your development platform:

- On Linux and Mac OS X (Darwin):

1. Download the appropriate package from this page.



Before installing the Android NDK, you must agree to the following terms and conditions.

Terms and Conditions

This is the Android Software Development Kit License Agreement

1. Introduction

1.1 The Android Software Development Kit (referred to in this License Agreement as the "SDK" and specifically including the Android system files, packaged APIs, and Google APIs add-ons) is licensed to you subject to the terms of this License Agreement. This License Agreement forms a legally binding contract between you and Google in relation to your use of the SDK.

1.2 "Android" means the Android software stack for devices, as made available under the Android Open Source Project, which is located at the following URL: <http://source.android.com/>, as updated from time to time.

I have read and agree with the above terms and conditions

DOWNLOAD ANDROID-NDK-R10E-DARWIN-X86_64.BIN

- On Linux and Mac OS X (Darwin):
 1. Download the appropriate package from this page.
 2. Open a terminal window.
 3. Go to the directory to which you downloaded the package.

チェックして、
その下のボタンをクリックするとダウンロード開始

解凍して配置

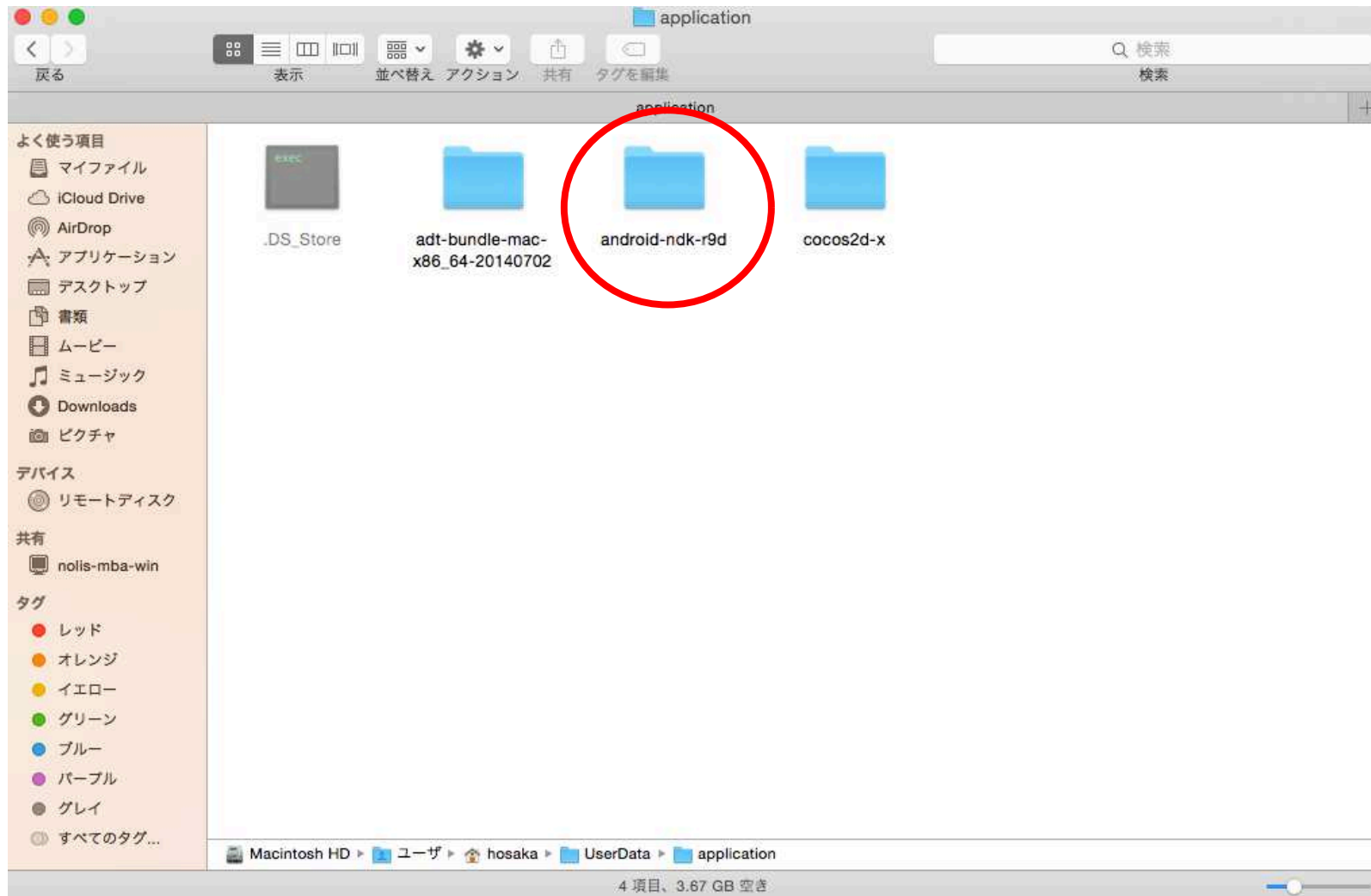
ターミナルを起動して、ダウンロードしたファイルがある場所に移動。

その後以下のコマンドを実行しましょう。

```
hosaka$ chmod a+x android-ndk-r10e-darwin-x86_64.bin
```

```
hosaka$ ./android-ndk-r10e-darwin-x86_64.bin
```

解凍後の配置例



Cocos2d-x 3.7

オープンソースゲーム開発プラットフォーム。

ゲームはもちろん、その他のアプリやGUIベースのクロスプラットフォーム向けインタラクティブプログラムの作成も可能です。

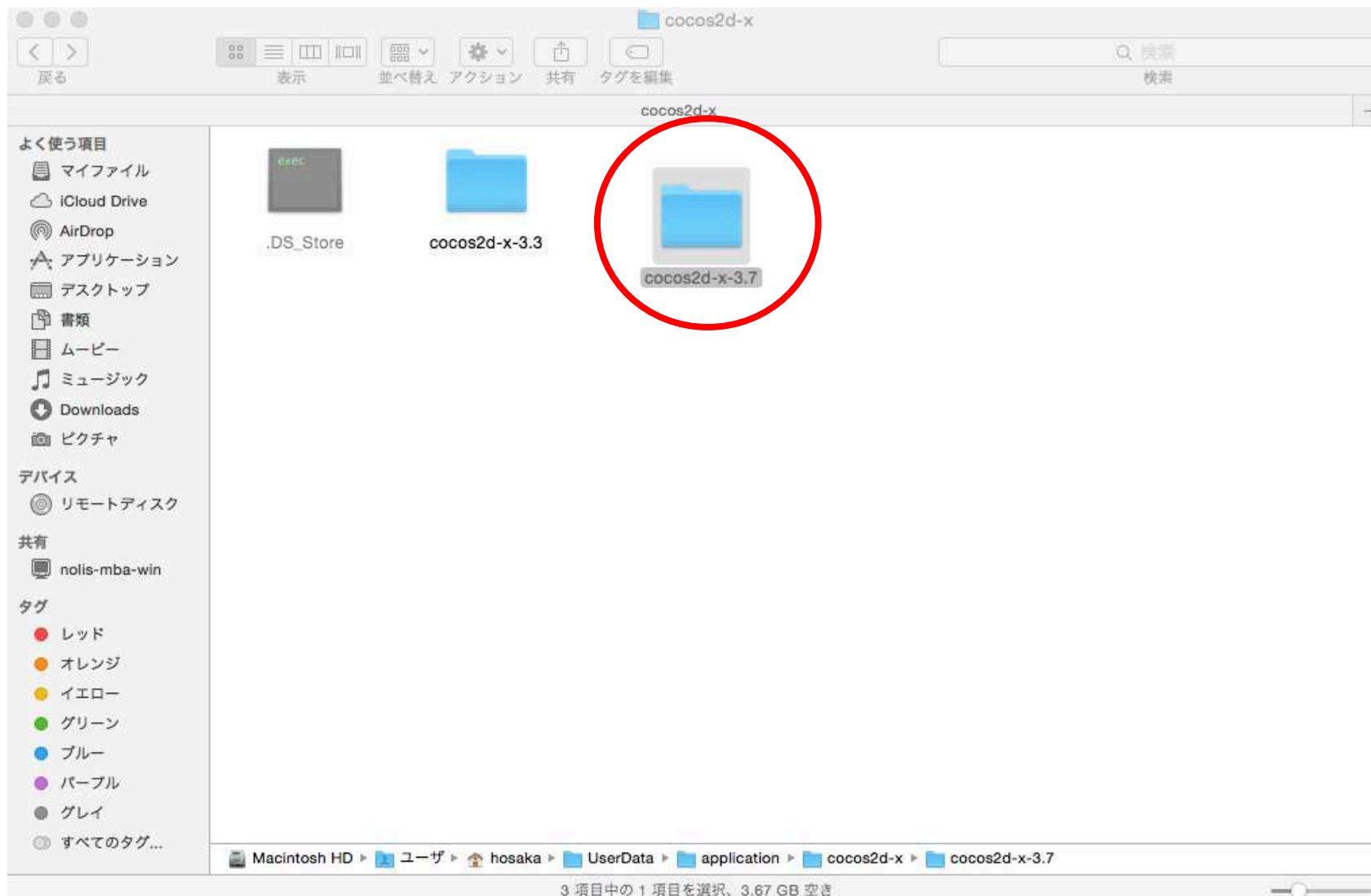
http://jp.cocos.com/

The screenshot shows the website <http://jp.cocos.com/products/download/>. The page features a blue header with the Cocos2d-x logo and navigation links: [ホーム](#) (HOME), [製品情報](#) (Cocos2d-x), [使い方](#) (LEARN), [アプリ](#) (SHOWCASE), [コミュニティ](#) (COMMUNITY), and [ニュース](#) (NEWS). Below the header, the word "DOWNLOAD" is prominently displayed with "ダウンロード" underneath. A text block states: "Cocos2d-xのほか、Cocos2d-JS・Cocos Code IDE・Cocos Studioをダウンロードすることができます。"

The main content area is titled "製品ダウンロード" (Product Download) and contains two product cards. The first card is for "Cocos2d-x", with the text "Cocos2d-x" circled in red. It includes a "Download v3.7" button, a "Github" button, and a link to "Cocos2d-x について". The second card is for "Cocos2d-JS", featuring "Download v3.7", "Download Lite Version", and "Github" buttons, along with a link to "Cocos2d-JS について".

At the bottom, a yellow banner contains a message: "Sync がより簡単に使えるようになりました。同期を継続するには、Firefox アカウントをアップグレードしてください。" (Sync is now easier to use. To continue synchronization, please upgrade your Firefox account.) with links for "詳細情報" (Detailed Information) and "アップグレード" (Upgrade).

解凍して配置



Python 2.7.10

cocos関連の環境構築の課程で使用するスクリプト実行環境

<http://www.python.jp/>

python Japan

検索

Pythonとは >> プログラミング言語 Python

和訳ドキュメント >>

ニュース >>

イベント >>

求人情報 >>

コミュニティ >>

その他 >>

公式ウェブサイト

Pythonパッケージインデックス

Python 2.7.10

>> 日本語ドキュメント

>> ダウンロード

Python 3.4.3

>> 日本語ドキュメント

>> ダウンロード

Pythonに募金を!

PayPal DONATE or VISA or MasterCard

世界各国のPython情報

2015-07-06 (月) 17:46

【求人情報】 みんなのマーケット株式会社

くらべておトク、プロのお仕事。

くらしのマーケット

みんなのマーケット株式会社は、ハウスクリーニングや家事代行、トイレの修理などの「出張サービス」に特化したオンラインマーケットプレイス「くらしのマーケット」を運営するスタートアップです

Pythonドキュメント

Pythonの訳するブ

現在、Py

対応する

メール

Pythonの

日本語で

Pythonの

リングリ

Pythonに

お待ちし

旧サイト

以前のw

Python

8月 7

Open

8月 9

Sphir

8月 1

Schir

hosaka@monolizm.com に送信された認証メールのリンクをクリックしてください 再送信(R)

Python 2.7.10 is a bug fix release of the Python 2.7.x series.

Python 2.7.10

Release Date: 2015-05-23

Python 2.7.10 is a bug fix release of the Python 2.7.

[Full Changelog](#)

Files

[Full Changelog](#)

Files

Version	Operating System
Gzipped source tarball	Source release
Mac OS X 32-bit/64-bit/Apple installer Mac OS X 64-bit/32-bit installer Windows debug information files Windows debug information files for 64-bit binaries Windows help file Windows x86-64 MSI installer Windows x86 MSI installer	

Version	Operating System	Description	MDS Sum	File Size	GPG
Gzipped source tarball	Source release		d7547558fd673bd9d38e2108c6b42521	16768806	SIG
XZ compressed source tarball	Source release		c685ef0b8e9f27b5e3db5db12b268ac6	12250696	SIG
Mac OS X 32-bit/64-bit/Apple installer	Mac OS X	for Mac OS X 10.5 and later	40c01b527ee9898460f8cd515f1c1651	23985274	SIG
Mac OS X 64-bit/32-bit installer	Mac OS X	for Mac OS X 10.6 and later	3a5419361628c542f5fc28691eb7b773	22129777	SIG
Windows debug information files	Windows		44c155e72ddae4bface20932ea2f5cf	26592322	SIG
Windows debug information files for 64-bit binaries	Windows		2460724a7ce7a736e7b5e3ee44879e53	24626242	SIG
Windows help file	Windows		5798437100884d987a57626e11d2c618	6132901	SIG
Windows x86-64 MSI installer	Windows	for AMD64/EM64T/x64, not Itanium processors	35f5c301beab341f6fc9785939882ee	19382272	SIG
Windows x86 MSI installer	Windows		4ba2c79b103f6003bc4611c837a08208	18423808	SIG

実行してインストール

全てデフォルトでOK。



動作確認

ターミナルを起動して次のコマンドを打ちましょう。

```
hosaka$ python --version
```

画面上に次のように表示されれば正常

```
python 2.7.10
```


cocos2d-x環境設定

プロジェクトを作成するために、
Android NDKやSDKの場所の設定が必要

ターミナルからsetup.pyを実行する。

```
Please execute command: "source /Users/hosaka/.bash_profile" to make added system variables take effect

hosaka-MacBook-Air:cocos2d-x-3.7 hosaka$ setup.py

Setting up cocos2d-x...
->Check environment variable COCOS_CONSOLE_ROOT
  ->Search for environment variable COCOS_CONSOLE_ROOT...
    ->COCOS_CONSOLE_ROOT is found : /Users/hosaka/UserData/application/cocos2d-x/cocos2d-x-3.3/tools/cocos2d-console/bin

->Check environment variable COCOS_X_ROOT
  ->Search for environment variable COCOS_X_ROOT...
    ->COCOS_X_ROOT is found : /Users/hosaka/UserData/application/cocos2d-x/cocos2d-x-3.3

->Check environment variable COCOS_TEMPLATES_ROOT
  ->Search for environment variable COCOS_TEMPLATES_ROOT...
    ->COCOS_TEMPLATES_ROOT is found : /Users/hosaka/UserData/application/cocos2d-x/cocos2d-x-3.3/templates

->Configuration for Android platform only, you can also skip and manually edit "/Users/hosaka/.bash_profile"
```

対話形式で必要なパスを設定していきます。
設定が終了したら再起動しましょう。

設定の確認

.bash_profileに設定されたものが登録される

```
.bash_profile

# Setting PATH for Python 2.7
# The original version is saved in .bash_profile.pysave
PATH="/Library/Frameworks/Python.framework/Versions/2.7/bin:${PATH}"
export PATH

# Add environment variable COCOS_CONSOLE_ROOT for cocos2d-x
export COCOS_CONSOLE_ROOT=/Users/hosaka/UserData/application/cocos2d-x/cocos2d-x-3.3/tools/cocos2d-console/bin
export PATH=${COCOS_CONSOLE_ROOT}:${PATH}
export NDK_ROOT=/Users/hosaka/UserData/application/android-ndk-r9d
export ANDROID_SDK_ROOT=/Users/hosaka/UserData/application/adt-bundle-mac-x86_64-20140702
# Add environment variable COCOS_X_ROOT for cocos2d-x
export COCOS_X_ROOT=/Users/hosaka/UserData/application/cocos2d-x/cocos2d-x-3.3
export PATH=${COCOS_X_ROOT}:${PATH}

# Add environment variable COCOS_TEMPLATES_ROOT for cocos2d-x
export COCOS_TEMPLATES_ROOT=/Users/hosaka/UserData/application/cocos2d-x/cocos2d-x-3.3/templates
export PATH=${COCOS_TEMPLATES_ROOT}:${PATH}
```

パスが間違っていたなどした場合や、手動で直す場合はこのファイルを変更してしまおう！

変更後は再起動が必要なので要注意

プロジェクトの作成と実行

早速、プロジェクトの作成をしてとりあえず実行してみよう
「AngryChicken」

cocosコマンドを実行してプロジェクトを作成しよう

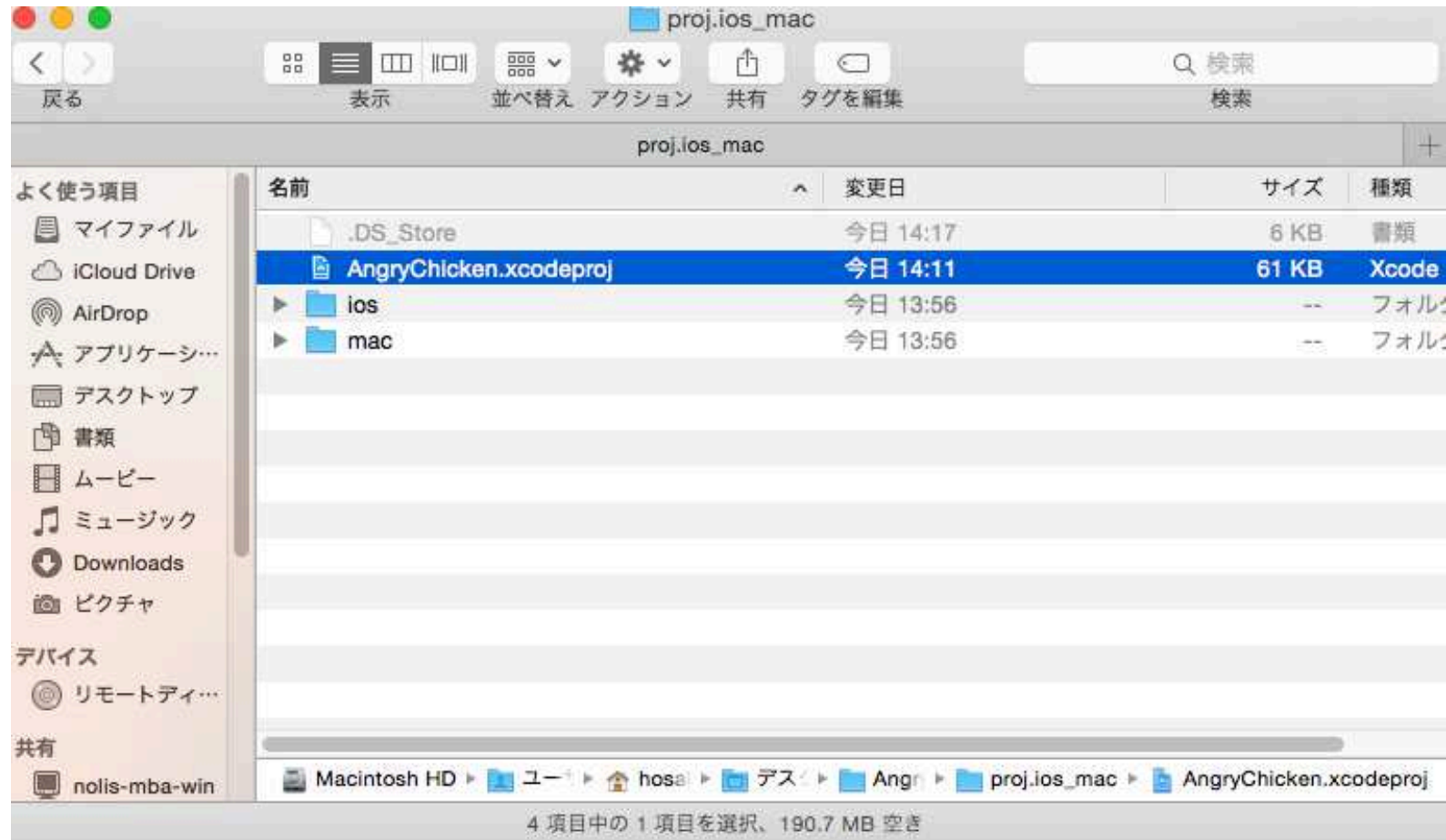
```
hosaka@hosaka ~ % cocos new AngryChicken -p com.monolizm.falltheball -l cpp -d ~/Desktop
```

数十秒後

```
Last login: Sat Aug 8 13:06:18 on console
hosaka-MacBook-Air:~ hosaka$ cocos new AngryChicken -p com.monolizm.falltheball -l cpp -d ~/Desktop
Running command: new
> Copy template into /Users/hosaka/Desktop/AngryChicken
> Copying cocos2d-x files...
> Rename project name from 'HelloCpp' to 'AngryChicken'
> Replace the project name from 'HelloCpp' to 'AngryChicken'
> Replace the project package name from 'org.cocos2dx.hellocpp' to 'com.monolizm.falltheball'
> Replace the Mac bundle id from 'org.cocos2dx.hellocpp' to 'com.monolizm.falltheball'
> Replace the iOS bundle id from 'org.cocos2dx.hellocpp' to 'com.monolizm.falltheball'
hosaka-MacBook-Air:~ hosaka$
```



AngryChickenをxcodeで実行してみる。



Hello World



GL verts: 78
GL calls: 3
59.3 / 0.002



次回は物理演算Chipmunk編

参考文献

ぎじゅつめも

<http://wiki.xsqi.net/index.php?FrontPage>

というか、このページみると結構
細かくのっているのでいいでっせ。

ご清聴ありがとうございました。