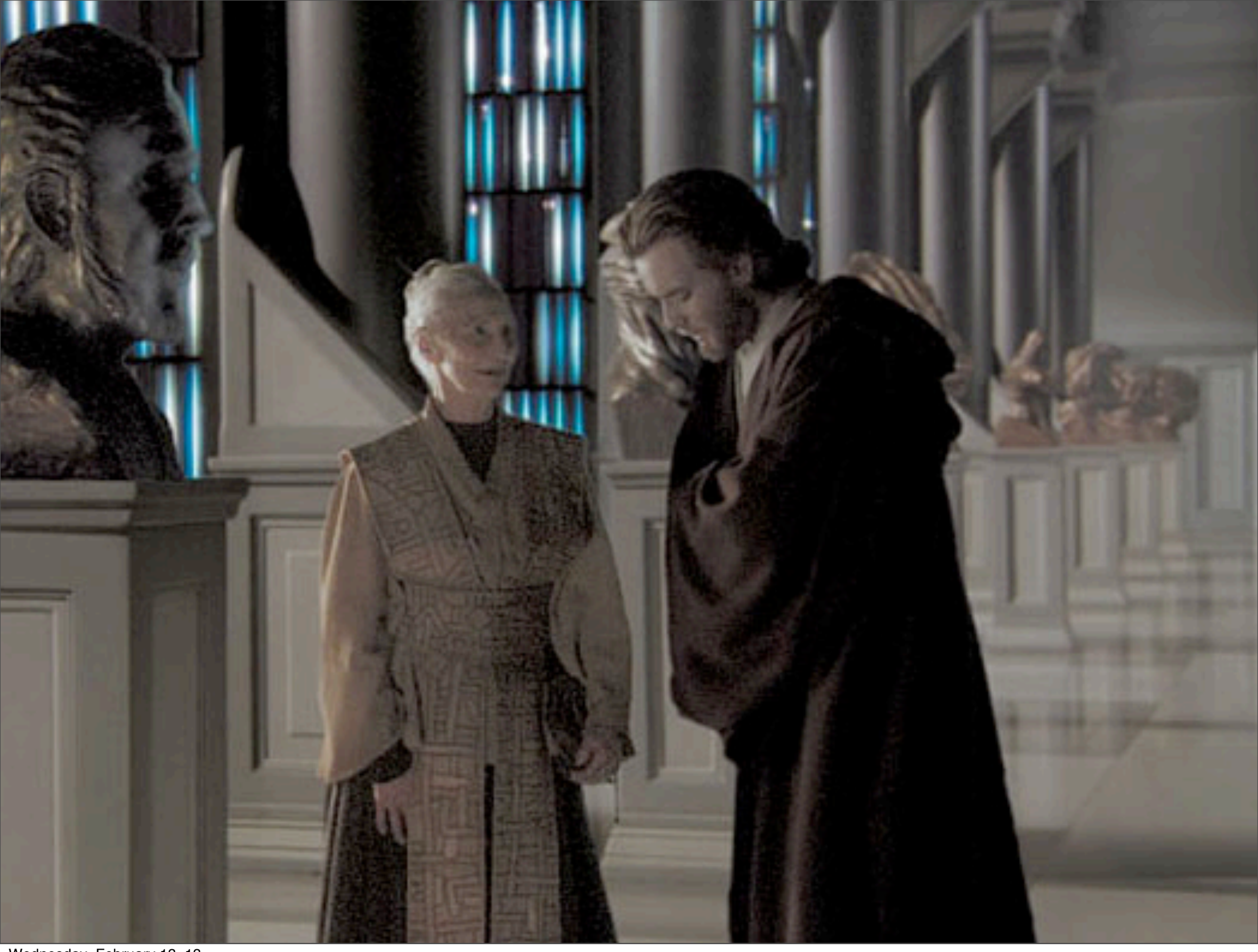
REST **is** your mobile strategy

Richard Wolf • UIC

richwolf@me.com


WELCOME TO UIC
World-Class Education. World-Class City.
UIC on facebook
Get connected
UIC



Account Summary
Legal Agreements

Your Account Summary

Personal & Professional Profile Update Profile

Program Membership

Name:	Richard Wolf
Individual ID:	S9P3LAQKWZ
Account Type:	Individual

Developer Programs

iOS Developer Program
Expiration Date: Jul 11, 2013

Mac Developer Program
Expiration Date: Aug 25, 2013

- Review REST

- Review REST
- Review iOS development

- Review REST
- Review iOS development
- Show two great things that go great together: REST and iOS development

- Review REST
- Review iOS development
- Show two great things that go great together: REST and iOS development

- How to think like a mobile developer… why REST matters

- Review REST
- Review iOS development
- Show two great things that go great together: REST and iOS development

- How to think like a mobile developer… why REST matters
- Hey, it’s four lighting talks in one!

96!

1st thing...

REST

RESTful Web Services Cookbook

REST in Practice

Hypermedia and Systems Architecture

Jim Webber
Savas Parastatidis
Ian Robinson

Foreword by Martin Fowler

O'REILLY®

REST API

Design Rulebook

Representational state transfer

From Wikipedia, the free encyclopedia

"REST" redirects here. For other uses, see Rest.

This article has multiple issues. Please help **improve it** or discuss these issues on the **talk page**.

- This article **may require cleanup to meet Wikipedia's quality standards**. The specific problem is: **per talk page**. *(July 2012)*
- This article includes a list of references, but **its sources remain unclear because it has insufficient inline citations**. *(June 2012)*

REpresentational State Transfer (**REST**) is a style of software architecture for distributed systems such as the World Wide Web. REST has emerged as a predominant Web service design model.

The term *representational state transfer* was introduced and defined in 2000 by Roy Fielding in his doctoral dissertation.[1][2] Fielding is one of the principal authors of the Hypertext Transfer Protocol (HTTP) specification versions 1.0 and 1.1.[3][4]

Conforming to the REST constraints is generally referred to as being "RESTful".[5]

Contents [hide]

About [edit]

The REST architectural style was developed[*by whom?*] in parallel with HTTP/1.1, based on the existing design of HTTP/1.0.[6] The World Wide Web represents the largest implementation of a system conforming to the REST architectural style. REST exemplifies how the Web's architecture emerged by characterizing and constraining the macro-interactions of the four components of the Web, namely origin servers, gateways, proxies and clients, without imposing limitations on the individual participants. As

- **RE**presentational **S**tate **T**ransfer—a methodology developed alongside HTTP 1.1

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- Clients request **representations** of resources from servers; a resource is any meaningful “thing” that can be addressed; a representation is typically a document

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- Clients request **representations** of resources from servers; a resource is any meaningful “thing” that can be addressed; a representation is typically a document
- **Clients**, not servers, **maintain state**

GET

PUT

POST

DELETE

GET	read remote resource
PUT	modify/replace remote resource
POST	create a new resource
DELETE	delete remote resource

http://lapi.transitchicago.com/api/1.0/ttarrivals.aspx?key=9e44724c19f5443a80622e6b901e60a0&max=1&mapid=40360

Endpoint

```
http://lapi.transitchicago.com/api/1.0/ttarrivals.aspx?
key=9e44724c19f5443a80622e6b901e60a0&max=1&mapid=40360
```

http://lapi.transitchicago.com/api/1.0/ttarrivals.aspx?key=9e44724c19f5443a80622e6b901e60a0&max=1&mapid=40360

```
http://lapi.transitchicago.com/api/1.0/ttarrivals.aspx?
key=9e44724c19f5443a80622e6b901e60a0&max=1&mapid=40360
```

Query String

http://lapi.transitchicago.com/api/1.0/ttarrivals.aspx?key=9e44724c19f5443a80622e6b901e60a0&max=1&mapid=40360

http://lapi.transitchicago.com/api/1.0/ttarrivals.aspx?key=9e44724c19f5443a80622e6b901e60a0&max=1&mapid=40360

Token 1

Token 2

Token 3

http://lapi.transitchicago.com/api/1.0/ttarrivals.aspx?key=9e44724c19f5443a80622e6b901e60a0&max=1&mapid=40360

W3C Recommendation

Extensible Markup Language (XML) 1.0 (Fifth Edition)

W3C Recommendation 26 November 2008

This version:
http://www.w3.org/TR/2008/REC-xml-20081126/
Latest version:
http://www.w3.org/TR/xml/
Previous versions:
http://www.w3.org/TR/2008/PER-xml-20080205/
http://www.w3.org/TR/2006/REC-xml-20060816/
Editors:
Tim Bray, Textuality and Netscape <tbray@textuality.com>
Jean Paoli, Microsoft <jeanpa@microsoft.com>
C. M. Sperberg-McQueen, W3C <cmsmcq@w3.org>
Eve Maler, Sun Microsystems, Inc. <eve.maler@east.sun.com>
François Yergeau

Please refer to the **errata** for this document, which may include some normative corrections.

The previous errata for this document, are also available.

See also **translations**.

This document is also available in these non-normative formats: XML and XHTML with color-coded revision indicators.

Abstract

The Extensible Markup Language (XML) is a subset of SGML that is completely described in this document. Its goal is to enable generic
received, and processed on the Web in the way that is now possible with HTML. XML has been designed for ease of implementation an
both SGML and HTML

Introducing JSON

العربية Български 中文 Český Nederlandse English Esperanto Française Deutsch Ελληνικά עברית Magyar Indonesia
Italiano 日本 한국어 فارسی Polski Português Română Русский Српски Slovenščina Español Svenska Türkçe Tiếng Việt

JSON (JavaScript Object Notation) is a lightweight data-interchange format. It is easy for humans to read and write. It is easy for machines to parse and generate. It is based on a subset of the JavaScript Programming Language, Standard ECMA-262 3rd Edition - December 1999. JSON is a text format that is completely language independent but uses conventions that are familiar to programmers of the C-family of languages, including C, C++, C#, Java, JavaScript, Perl, Python, and many others. These properties make JSON an ideal data-interchange language.

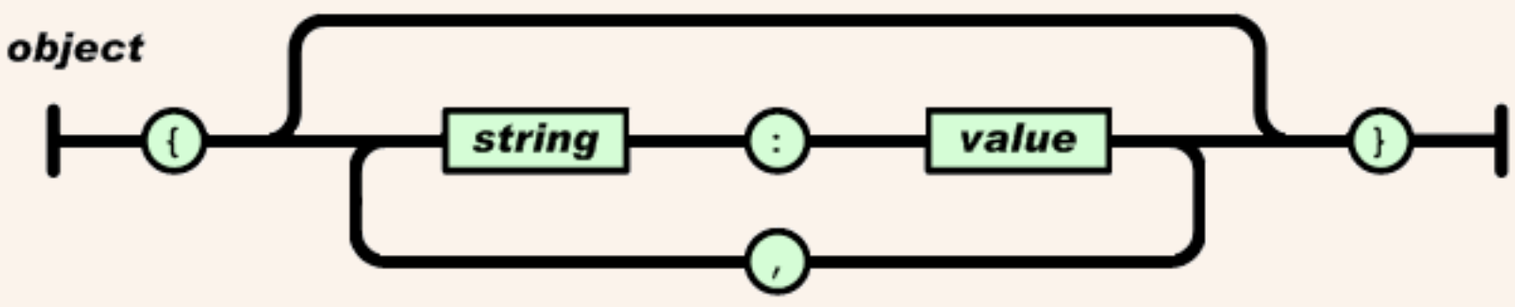
JSON is built on two structures:

- A collection of name/value pairs. In various languages, this is realized as an *object*, record, struct, dictionary, hash table, keyed list, or associative array.
- An ordered list of values. In most languages, this is realized as an *array*, vector, list, or sequence.

These are universal data structures. Virtually all modern programming languages support them in one form or another. It makes sense that a data format that is interchangeable with programming languages also be based on these structures.

In JSON, they take on these forms:

An *object* is an unordered set of name/value pairs. An object begins with { (left brace) and ends with } (right brace). Each name is followed by : (colon) and the name/value pairs are separated by , (comma).



An *array* is an ordered collection of values. An array begins with [(left bracket) and ends with] (right bracket). Values are separated by , (comma).

object
{}
{ *members* }
members
pair
pair , *members*
pair
string : *value*
array
[]
[*elements*]
elements
value
value , *elements*
value
string
number
object
array
true
false
null

---

string
""
" *chars* "
chars

REST API Resources

Jump to

Timelines

Timelines are collections of Tweets, ordered with the most recent first.

Resource	Description
GET statuses/home_timeline	Returns the 20 most recent statuses, including retweets if they exist, posted by the authenticating user and the user's they follow. This is the same timeline seen by a user when they login to twitter.com. This method is identical to statuses/friends_timeline, except that this method always...
GET statuses/mentions	Returns the 20 most recent mentions (status containing @username) for the authenticating user. The timeline returned is the equivalent of the one seen when you view your mentions on twitter.com. This method can only return up to 800 statuses. If include_rts is set only 800 statuses, including...
GET statuses/public_timeline	Returns the 20 most recent statuses, including retweets if they exist, from non-protected users. The public timeline is cached for 60 seconds. Requesting more frequently than that will not return any more data, and will count against your rate limit usage. Consider using the Streaming API's...
GET statuses/retweeted_by_me	Returns the 20 most recent retweets posted by the authenticating user.
GET statuses/retweeted_to_me	Returns the 20 most recent retweets posted by users the authenticating user follow.
GET statuses/retweets_of_me	Returns the 20 most recent tweets of the authenticated user that have been retweeted by others.
GET statuses/user_timeline	Returns the 20 most recent statuses posted by the authenticating user. It is also possible to request another user's timeline by using the screen_name or user_id parameter. The other users timeline will only be visible if they are not protected, or if the authenticating user's follow request was...
GET statuses/retweeted_to_user	Returns the 20 most recent retweets posted by users the specified user follows. The user is specified using the user_id or screen_name parameters. This method is identical to statuses/retweeted_to_me except you can choose the user to view.

The New York Times

Developer Network BETA

API Documentation and Tools

The Times Developer Network is our API clearinghouse and community. Get the latest news about New York Times APIs, read the API documentation, browse the application gallery and connect with other developers in the forum.

The Congress API

With the Congress API, you can get summaries of roll-call votes in the U.S. Congress; get lists of members of Congress; and get vote data, floor appearances, biographical information and role data for individual House and Senate members. You can also get information about bills (summaries and bill actions), nominees, committees and schedules.

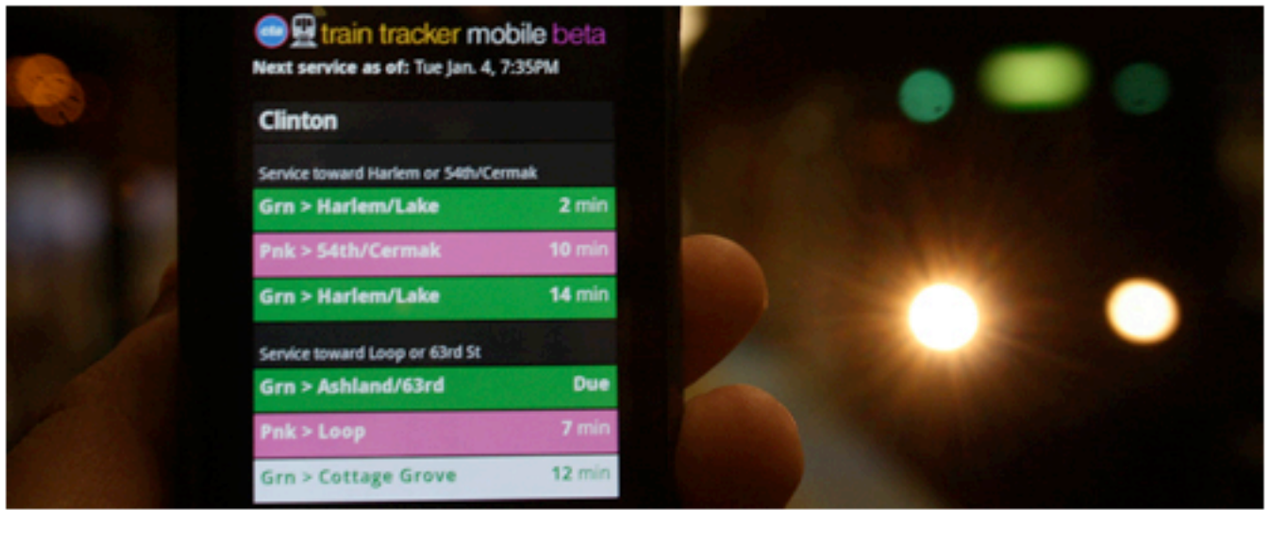
For information about changes in the current version, see Introducing Version 3 of the Congress API and the summary of changes on this page. For a general overview and background, see Introducing the Congress API.

Note: In this document, curly braces { } indicate required items. Square brackets [ ] indicate optional items or placeholders.

THE CONGRESS API AT A GLANCE	
Base URI	`http://api.nytimes.com/svc/politics/{version}/us/legislative/congress`
Scope	**House of Representatives votes and members:** 102nd Congress (1991–1993) to present **House of Representatives member roles:** 98th Congress (1983–1985) to present **Senate votes:** 101st Congress (1989–1991) to present **Senate members and member roles:** 80th Congress (1947–1949) to present **Floor appearances:** 111th Congress (2009–2010) to present (earlier data will be added) **Bills:** 105th Congress (1997–1999) to present **Nominees:** 107th Congress (2001–2002) to present Additional scope notes are included with the descriptions of the various request types.
HTTP method	GET
Response formats	XML (`.xml`, default), JSON (`.json`)
Quick links	Requests | Responses | Examples | Errors | Change Log

To use the Congress API, you must sign up for an API key. Usage is limited to 5000 requests per day (rate limits are subject to change). Please read and agree to the API Terms of Use, the Supplemental Terms of Use and the Attribution Guidelines before you

- Press Releases
- Reports & Notices
- @ the CTA (Newsletter)
- Connections (TV Show)
- Performance
- Going Green
- Developer Center
  - CTA Train Tracker API
  - CTA Bus Tracker API
  - Customer Alerts API
  - Scheduled Service Data (GTFS)
  - Further Reading
  - DIY Transit Info Display
  - Apps
  - CTA Trademarks & You
  - Developer License Agreement & Terms of Use
- Improvement Projects
- Planning & Expansion
- Red Line Extension
- Orange Line Extension
- Yellow Line Extension
- Mystery Shopper
- Charter a Train



CTA Train Tracker API

Overview

The CTA Train Tracker [SM] API beta test provides a gateway into near-real-time CTA bus train estimated arrival times. You can use the official CTA Train Tracker service via Web or mobile device.

To use this API, you must agree to the Terms of Service and apply for an API key.

How train data gets into our system

Information in the CTA Train Tracker beta comes from data fed to CTA from its rail infrastructure (unlike buses, our current railcar fleet does not have GPS hardware). This data is then processed by software we use to monitor our rail system which also generates the predictions for train arrivals based on recent train travel times from one point to another. (The software is a product called QuicTrak, made by QEI, Inc.)

Prediction data are combined with other data and polished to help present information in the most meaningful way possible.

Quick Links

Schedules | Maps | Alerts | Transit Trackers | Chicago Card | Fare Info

Plan a trip

Start (e.g. O'Hare Airport)

End (e.g. 1 N State St, Chicago, IL)

Leave Now

Depart or Arrive

on 7/16/2011

at 03 : 50 PM

Get directions with: Google Transit | goroo

About trip planners (and more options)..

System Status

So that's REST...

2nd thing...

iOS development

Wednesday, February 13, 13

Beginning iOS 6 Development

Exploring the iOS SDK

David Mark | Jack Nutting | Jeff LaMarche | Fredrik Olsson

More iOS 6 Development

Further Explorations of the iOS SDK

David Mark | Alex Horovitz | Kevin Kim | Jeff LaMarche

- Xcode

- Xcode
- Objective-C

- Xcode
- Objective-C
- Cocoa Touch

- Xcode
- Objective-C
- Cocoa Touch
- Provisioning

Fritz Anderson

Completely Revised

Covers Xcode 4 for iOS and Mac Development

Xcode 4

UNLEASHED

Xcode

Everything you need to create great apps for Mac, iPhone, and iPad.

Free

Xcode

Xcode provides everything developers need to create great applications for Mac, iPhone, and iPad. Xcode 4 has been streamlined to help you write better apps. It has unified user interface design, coding, testing, and debugging all within a single window. The Xcode IDE analyzes the details of your project to identify mistakes in both syntax and logic, it can even help fix your code for you.
...

...More

What's New in Version 4.5.2

- Support for iPad mini and iPad with Retina display (4th generation).
- Additional bug fixes and stability improvements....

...More

Apple Web Site

Xcode Support

App License Agreement

Information

Category: Developer Tools
Updated: Nov 01, 2012
Version: 4.5.2
Price: Free
Size: 1.50 GB
Language: English
Seller: Apple Inc.

Rated 4+

Requirements:
OS X 10.7.4 or later

More by Apple

OS X Mountain Lion
Productivity

David Chisnall

ESSENTIAL CODE AND COMMANDS

Objective-C 2.0

PHRASEBOOK

- A strict superset of the C language.

- A strict superset of the C language.
- Adds objects, a dynamic runtime, and other stuff (e.g., closures) to C.

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- If you know C, you can learn Objective-C in hours.

- A strict superset of the C language.
- Adds objects, a dynamic runtime, and other stuff (e.g., closures) to C.

- If you know C, you can learn Objective-C in hours.
- If you know something else, you just need a couple of days to learn some C things.

iOS

Cocoa Touch

The Cocoa Touch frameworks that drive iOS apps share many proven patterns found on the Mac, but were built with a special focus on touch-based interfaces and optimization. UIKit provides the basic tools you need to implement graphical, event-driven applications in iOS. UIKit builds on the same Foundation framework infrastructure found on the Mac OS X, including file handling, networking, string building, and more.

The unique interface of iOS means that Cocoa Touch has a unique design to match. Using UIKit you have access to the special GUI controls, buttons, and full-screen views on iOS. You also get to control your application with the accelerometer and the multi-touch gesture.

Built on Objective-C

Much of Cocoa Touch is implemented in Objective-C, an object-oriented language that is compiled to run at incredible speed, yet employs a truly dynamic runtime making it uniquely flexible. Because Objective-C is a superset of C, it is easy to mix C and even C++ into your Cocoa Touch applications.

As your application runs, the Objective-C runtime instantiates objects based on executing logic - not just in ways defined during compilation. For example, a running Objective-C application can

Design Patterns

Elements of Reusable Object-Oriented Software

Erich Gamma
Richard Helm
Ralph Johnson
John Vlissides

ADDISON-WESLEY PROFESSIONAL COM

Foundation Framework Reference

The Foundation framework defines a base layer of Objective-C classes. In addition to providing a set of useful primitive object classes, it introduces several paradigms that define functionality not covered by the Objective-C language. The Foundation framework is designed with these goals in mind:

- Provide a small set of basic utility classes.
- Make software development easier by introducing consistent conventions for things such as deallocation.
- Support Unicode strings, object persistence, and object distribution.
- Provide a level of OS independence, to enhance portability.

The Foundation framework includes the root object class, classes representing basic data types such as strings and byte arrays, collection classes for storing other objects, classes representing system information such as dates, and classes representing communication ports. See Figure I-1 for a list of those classes that make up the Foundation framework.

[More]

Framework	/System/Library/Frameworks/Foundation.framework
Header file directories	/System/Library/Frameworks/Foundation.framework/Headers
Companion guides	Cocoa Fundamentals Guide Foundation Release Notes

Class References

NSAffineTransform
NSAppleEventDescriptor
NSAppleEventManager
NSAppleScript
NSArchiver
NSArray
NSAssertionHandler
NSAttributedString
NSAutoreleasePool
NSBlockOperation
NSBundle
NSCache
NSCachedURLResponse

Protocol References

NSCoding
NSComparisonMethods
NSConnectionDelegate
NSCopying
NSDecimalNumberBehaviors
NSErrorRecoveryAttempting
NSFastEnumeration
NSFileManagerDelegate
NSFilePresenter
NSKeyedArchiverDelegate
NSKeyedUnarchiverDelegate
NSKeyValueCoding
NSKeyValueObserving

Other References

Foundation Functions
Foundation Data Types
Foundation Constants

Revision History

UIKit Framework Reference

The UIKit framework provides the classes needed to construct and manage an application's user interface for iOS. It provides an application object, event handling, drawing model, windows, views, and controls specifically designed for a touch screen interface. Figure I-1 illustrates the classes in this framework.

[More]

Framework	/System/Library/Frameworks/UIKit.framework
Header file directories	/System/Library/Frameworks/UIKit.framework/Headers

Class References

NSBundle UIKit Additions
NSCoder UIKit Additions
NSIndexPath UIKit Additions
NSObject UIKit Additions
NSString UIKit Additions
NSValue UIKit Additions
UIAcceleration
UIAccelerometer
UIAccessibilityElement
UIActionSheet
UIActivityIndicatorView
UIAlertView
UIApplication
UIBarButtonItem
UIBarItem
UIBezierPath
UIButton
UIColor
UIControl
UIDatePicker
UIDevice
UIDictationPhrase
UIDocument
UIDocumentInteractionController
UIEvent

Protocol References

UIAccelerometerDelegate
UIAccessibility
UIAccessibilityAction
UIAccessibilityContainer
UIAccessibilityFocus
UIActionSheetDelegate
UIAlertViewDelegate
UIAppearance
UIAppearanceContainer
UIApplicationDelegate
UIDocumentInteractionControllerDelegate
UIGestureRecognizerDelegate
UIImagePickerControllerDelegate
UIKeyInput
UINavigationBarDelegate
UINavigationControllerDelegate
UIPageViewControllerDataSource
UIPageViewControllerDelegate
UIPickerViewAccessibilityDelegate
UIPickerViewDataSource
UIPickerViewDelegate
UIPopoverControllerDelegate
UIPrintInteractionControllerDelegate
UIResponderStandardEditActions
UIScrollViewDelegate

Other References

UIKit Data Types
UIKit Constants
UIKit Function
UIRotationGestureRecognizer_Class

Revision History

Provisioning Portal

Go to iOS Dev Center

- Home
- Certificates
- Devices
- App IDs
- Pass Type IDs
- Provisioning
- Distribution

Welcome to the iOS Provisioning Portal

The iOS Provisioning Portal lets you manage certificates, authorize devices, and create profiles for developing, testing, and distributing your app.

Visit Member Center for Team, Account, and Program Info

- View account information, including your Team ID, profile, and program details
- Request and purchase Technical Support Incidents (TSIs)
- Manage your development team

Sign in to Member Center now

Development Provisioning Assistant

To get your app on an iOS device, use the Development Provisioning Assistant to create and install a Provisioning Profile and iOS Development Certificate.

Launch Assistant

Portal Resources

iOS App Workflow Guide

App Development Overview

How-To's

Obtaining your Certificate
View video

Assigning Devices
View video

Creating your App IDs
View video

Creating Provisioning Profiles
View video

Support Resources

iTunes Connect Support
Find answers to questions about the iTunes Connect system, including uploading your application or finding a Finance Report.

Technical Support
Receive code-level, technical assistance for your specific development issue.

Developer Support
Contact us for general inquiries, including Program questions, account issues and change of contact information.

So that's iOS dev...

3rd thing...

REST + iOS = Cool!

Classify

An experimental classification web service

Powered by the Classify Web Service.

Search

Standard Number

Enter an ISBN, OCLC#, UPC, or ISSN

Standard Number:

Search

Title/Author

Enter a Title, an Author, or both.

Title:

Author:

Search

Subject Heading

Enter a FAST Subject Heading

Subject Heading:

Search

Classify News & Updates

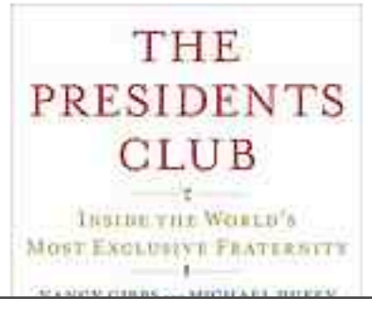
October 2012 - **Classify Updates**

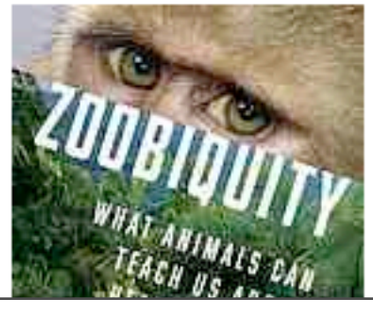
- The database provides access to more than 91 million classification numbers.
- Visit WebDewey to request a free trial of WebDewey for your library.

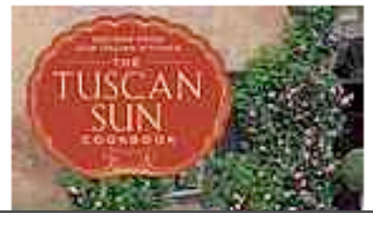
October 2012 - **Database Refresh**

The Classify database is current through September 2012

Jump Right In...







Metadata Management

Classify

Classify

ResearchWorks

Classify is a FRBR-based prototype designed to support the assignment of classification numbers and subject headings for books, DVDs, CDs, and other types of materials.

Overview

This project applies principles of the FRBR model to aggregate bibliographic information above the manifestation level. Bibliographic records are grouped using the OCLC FRBR Work-Set algorithm to form a work-level summary of the class numbers and subject headings assigned to a work. You can retrieve a summary by ISBN, ISSN, UPC, OCLC number, author/title, or subject heading.

The Classify database is accessible through a user interface and as a machine-to-machine service. The database provides access to more than 36 million WorldCat records that contain Dewey Decimal Classification (DDC) numbers, Library of Congress Classification (LCC) numbers, or National Library of Medicine (NLM) Classification numbers. Classify records also include subject headings from the Faceted Application of Subject Terminology (FAST) scheme.

Try the online demo

Visit the prototype - or click on the examples in the body of this page - to view classification information and subject headings for a work.

Lead

Diane Vizine-Goetz

Using the API

The Classify Web Service is an experimental web service from the OCLC Office of Research. The web services enables users to submit an identifier such as an ISBN, ISSN, OCLC Number, LCCN, or UPC and retrieve information about the classification of that work in Dewey and Library of Congress Classifications. The service also retrieves FAST headings. In addition to the web service, a web interface to Classify is also available.

Examples

Retrieve classification information based on OCLC Number

http://classify.oclc.org/classify2/Classify?oclc=57358293&summary=true

Retrieve classification information based on ISBN

http://classify.oclc.org/classify2/Classify?isbn=0679442723&summary=true

Retrieve classification information based on ISSN

http://classify.oclc.org/classify2/Classify?issn=0027-1535&summary=true

Retrieve classification information based on LCCN

http://classify.oclc.org/classify2/Classify?lccn=2011588147&summary=true

Login or register to post comments

SUBMITTED BY ADMIN ON WED, 04/14/2010 - 3:21PM

Response Details

There are there possible response formats from the Classify Web Service

- Summary
- Full Detail - only for available for single works
- Multi-Work

Summary

Fields

- Work
  - author - author
  - editions - number of editions
  - format - format
  - holdings - number of libraries with holdings
  - hyr -
  - lyr -
  - swid - work ID
  - title - title
- recommendations - This section contains classification recommendations
  - ddc - Dewey classification recommendations
    - mostPopular - section for most popular classifications
      - holdings - number of holdings with that classification
      - sfa - classification number from the subfield $a of 082/092 or 050/090, or 060/096
      - nsfa - normalized classification number from the subfield $a of 082/092 or 050/090, or 060/096
      - sf2 - subfield $2 of 082/092
    - mostRecent - section for the classification from
      Same possible attributes as mostPopular

Finder File Edit View Go Window Help 99% Wed 6:57 PM richwolf

Macintosh HD

Applications

FAVORITES
- Dropbox
- All My Files
- AirDrop
- Applications
- Desktop
- Documents
- Downloads
- Movies
- Music
- Pictures
- richwolf

DEVICES
- Macintosh HD
- Remote Disc

Pomodorable, Preview, QuickTime Player, Read Later

Reeder, Reminders, Rested, Safari

ScreenFlow, Scrivener, Server, Sketch

Wednesday, February 13, 13

Finder File Edit View Go Window Help 99% Wed 5:27 PM richwolf

Macintosh HD

Applications

FAVORITES
- Dropbox
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- Applications
- Desktop
- Documents
- Downloads
- Movies
- Music
- Pictures
- richwolf

DEVICES
- Macintosh HD
- Remote Disc

Time Machine, Time Track Pro, Tower, TrackSift

Transmit, Tweetbot, Twitterrific, Utilities

Versions, Viscosity, WiFi Explorer, Xcode

xScope, Yojimbo

Wednesday, February 13, 13

```
<?xml version="1.0" encoding="UTF-8"?>
<classify
    xmlns="http://classify.oclc.org">
    <response code="2"/>
    <!--Classify is a product of OCLC Online Computer Library Center: http://classify.oclc.org-
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```
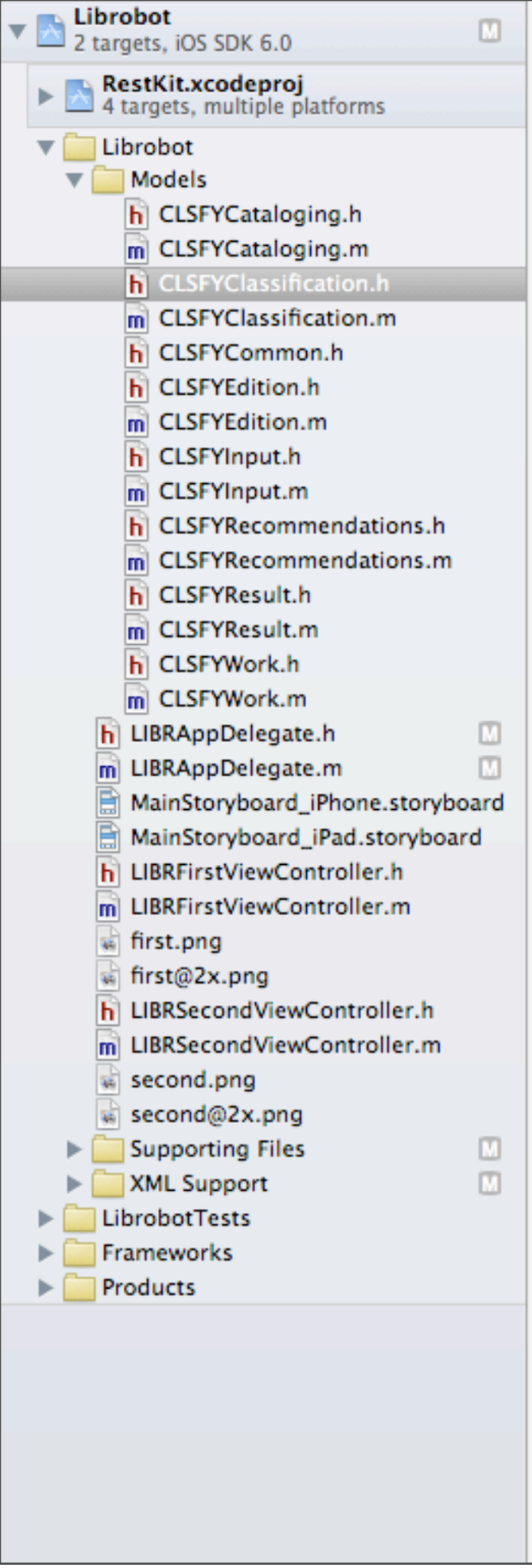




```objc
#import <Foundation/Foundation.h>

@interface CLSFYClassification : NSObject

@property (nonatomic, copy) NSNumber *index1;
@property (nonatomic, copy) NSNumber *index2;
@property (nonatomic, copy) NSString *edition;
@property (nonatomic, copy) NSString *tag;
@property (nonatomic, copy) NSNumber *numberOfHoldings;
@property (nonatomic, copy) NSString *subfieldA;
@property (nonatomic, copy) NSString *normalizedSubfieldA;
@property (nonatomic, copy) NSString *subfield2;
@property (nonatomic, copy) NSNumber *heldBy;
@property (nonatomic, copy) NSString *identity;
@property (nonatomic, copy) NSString *identityDescription;

@end
```

RestKit

RestKit is an **Objective-C framework for iOS** that aims to make interacting with RESTful web services simple, fast and fun. It combines a clean, simple HTTP request/response API with a powerful object mapping system that reduces the amount of code you need to write to **get stuff done.**

Download Source
v0.20.0-pre6

More Links

- Github project page →
- Google group →
- Twitter Page →
- API Docs →
- News & Updates →

> RestKit's primary goal is to allow the developer to think more in terms of their application's data model and **worry less** about the details of **sending requests**, **parsing responses**, and **building representations of remote resources**.

What does Restkit Provide?

A simple, high level HTTP request / response system.

RestKit ships with an HTTP client built on top of NSURLConnection and provides a library of helpful methods for inspecting MIME types and status codes. Submitting form data is as simple as providing a dictionary of parameters and a native params object is included for easily creating multi-part submissions.

Framework level support for switching servers & environments (development/production/staging).

RestKit uses a base URL and resource paths rather than full URL's to allow you to switch target servers quickly. Interpolating URL strings and constructing NSURL objects is a thing of the past.

Core Data support.

An object mapping system.

RestKit provides a modeling layer for mapping

PUBLIC RestKit / RestKit

RestKit is a framework for consuming and modeling RESTful web resources on iOS and OS X — Read more

http://www.restkit.org/

Clone in Mac ZIP HTTP SSH Git Read-Only https://github.com/RestKit/RestKit.git Read-Only access

branch: master Files Commits Branches 3 Tags 17

RestKit / 1000+ commits

Merge branch 'release/0.20.0-pre6'

blakewatters authored 13 days ago latest commit 22dd9ab40d

Code	13 days ago	Add support for dynamic nesting key serialization. closes #684 [blakewatters]
Docs	2 months ago	Add framework copy files images. refs #757 [blakewatters]
Examples	a month ago	Set explicit deployment targets for RKSearchExample and RKMacOSX. refs … [blakewatters]
Resources	5 months ago	Migrate table controller codebase into standalone project [blakewatters]
RestKit.xcodeproj	13 days ago	Add test coverage and fixes for `RKMappingTest`. closes #1086 [blakewatters]
RestKit.xcworkspace	2 months ago	Add a 'Build All Examples' shared scheme to the Workspace [blakewatters]
Tests	13 days ago	Add support for dynamic nesting key serialization. closes #684 [blakewatters]
Vendor	14 days ago	Bumped AFNetworking to 1.1.0 [jeanregisser]
.gitignore	3 months ago	Eliminated vendored copies of testing libraries in favor of Cocoapods… [blakewatters]
.gitmodules	2 months ago	Remove RKCatalog server submodule reference [blakewatters]

Installing RestKit v0.20.x as a Git Submodule

Page History

This document describes the installation process for getting RestKit installed into an iOS project built using Xcode 4.x. If you have trouble building or running your app after completing the guide, please refer to the Installation Troubleshooting wiki page.

Installation via CocoaPods

The recommended installation mechanism for RestKit is via CocoaPods. CocoaPods is an Objective-C library dependency manager that streamlines the process of installing, configuring, and updating third-party libraries.

Please consult the Installing RestKit v0.20.x via CocoaPods page if you wish to utilize CocoaPods to install RestKit.

You can learn more about CocoaPods at the website: http://cocoapods.org/

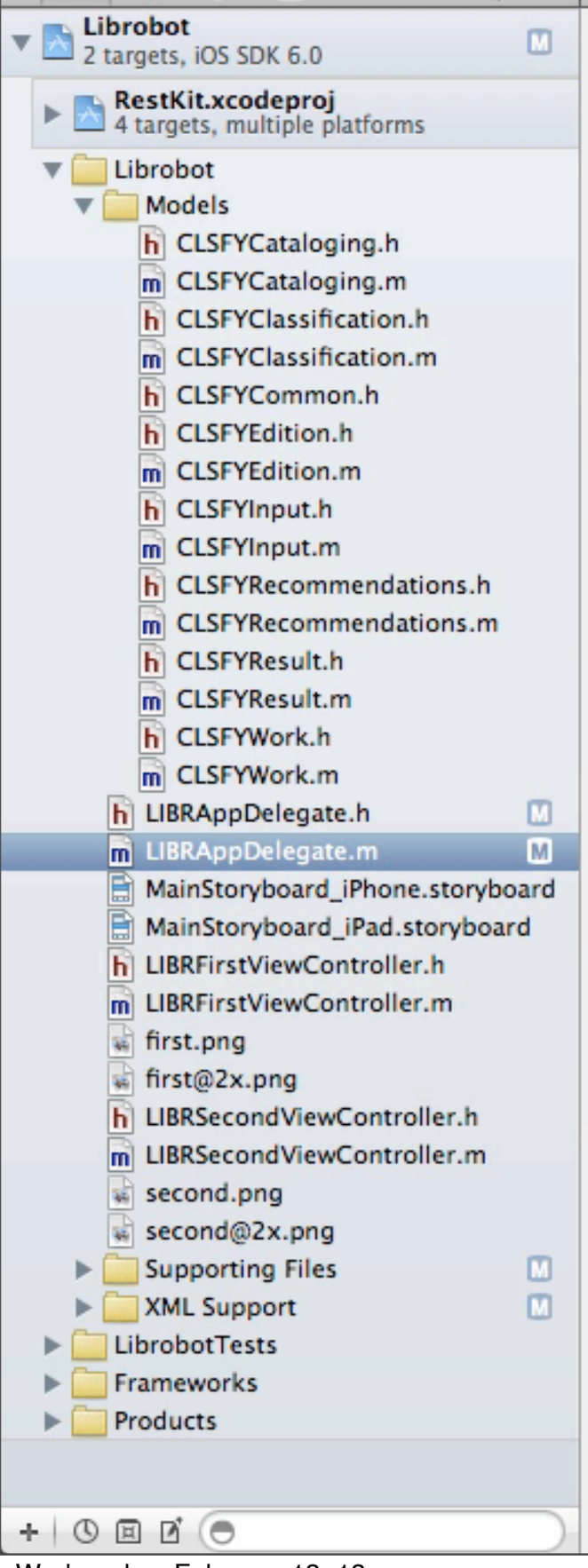
Adding the Submodule

We recommend using a Git submodule to manage your installation of RestKit. The first step to installation is to add the submodule to your project:

```
$ cd /path/to/MyApplication
# If this is a new project, initialize git...
$ git init
$ git submodule add git://github.com/RestKit/RestKit.git
$ git submodule update --init --recursive
$ open RestKit
```

Run Stop Scheme Breakpoints | Build Librobot: **Succeeded** | Today at 9:41 PM | Editor View Organizer

Librobot › Librobot › LIBRAppDelegate.m › -application:didFinishLaunchingWithOptions:




```
14
15      [RKMIMETypeSerialization registerClass:
            [RKXMLReaderSerialization class] forMIMEType:
            RKMIMETypeTextXML];
16
17      //  "input"
18      RKObjectMapping *inputMapping = [RKObjectMapping
            mappingForClass:[CLSFYInput class]];
19      [inputMapping addAttributeMappingsFromDictionary:@{
20       @"type": @"type",
21       @"text": @"text"
22       }];
23
24      //  "classification"
25      RKObjectMapping *classificationMapping = [RKObjectMapping
            mappingForClass:[CLSFYClassification class]];
26      [classificationMapping addAttributeMappingsFromDictionary:@{
27       @"ind1":     @"index1",
28       @"ind2":     @"index2",
29       @"tag":      @"tag",
30       @"edition":  @"edition",
31       @"holdings": @"numberOfHoldings",
32       @"sf2":      @"subfield2",
33       @"nsfa":     @"normalizedSubfieldA",
34       @"sfa":      @"subfieldA",
35       @"heldby":   @"heldBy",
36       @"ident":    @"identity",
37       @"text":     @"identityDescription"
38       }];
39
40      //  "cataloging" (e.g., Dewey, Library of Congress, etc.)
41      RKObjectMapping *catalogingMapping = [RKObjectMapping
            mappingForClass:[CLSFYCataloging class]];
```

PaintCode

★★★ Sale: 33% off! ★★★

Designing an attractive, resolution-independent user interface is hard, especially if you have to program your drawing code. PaintCode is a simple vector drawing app that instantly generates resolution-independent Objective-C and C#/MonoTouch drawing code....

...More

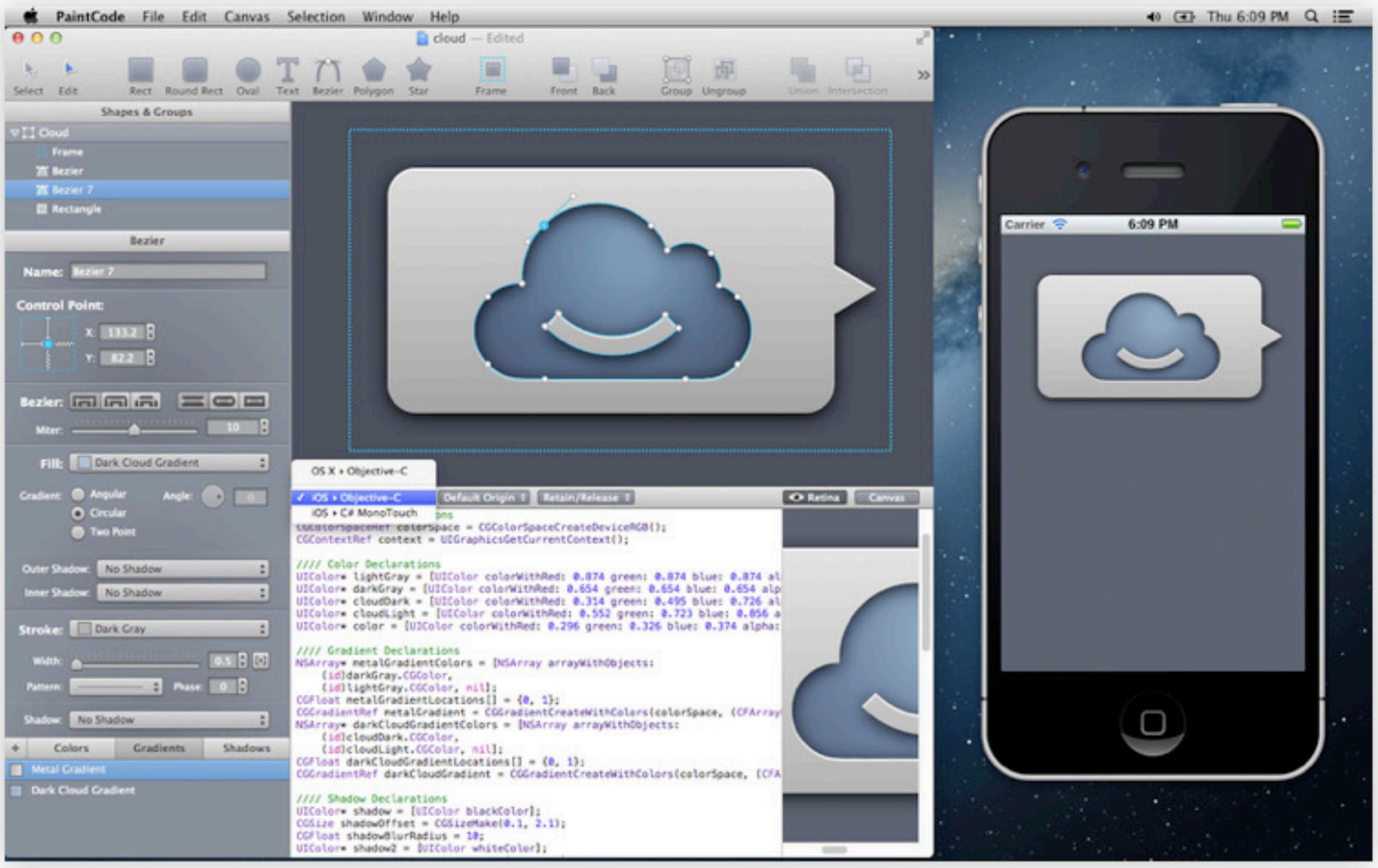
Installed

What's New in Version 1.2.1

- SVG import bug fixes
- Critical bug fixes and performance improvements

PixelCut s.r.o. Web Site

PaintCode Support



Information

Category: Developer Tools
Updated: Oct 11, 2012
Version: 1.2.1
Price: $99.99
Size: 2.7 MB
Language: English
Seller: PixelCut s.r.o.

Rated 4+

Requirements:
OS X 10.7 or later, 64-bit processor

PaintCode File Edit Canvas Selection Window Store Help 86% Tue 2:50 PM richwolf

Rich's Array — Edited

Select Edit Rect Round Rect Oval Text Bezier Polygon Star Frame Front Back Group Ungroup Union Intersection Difference

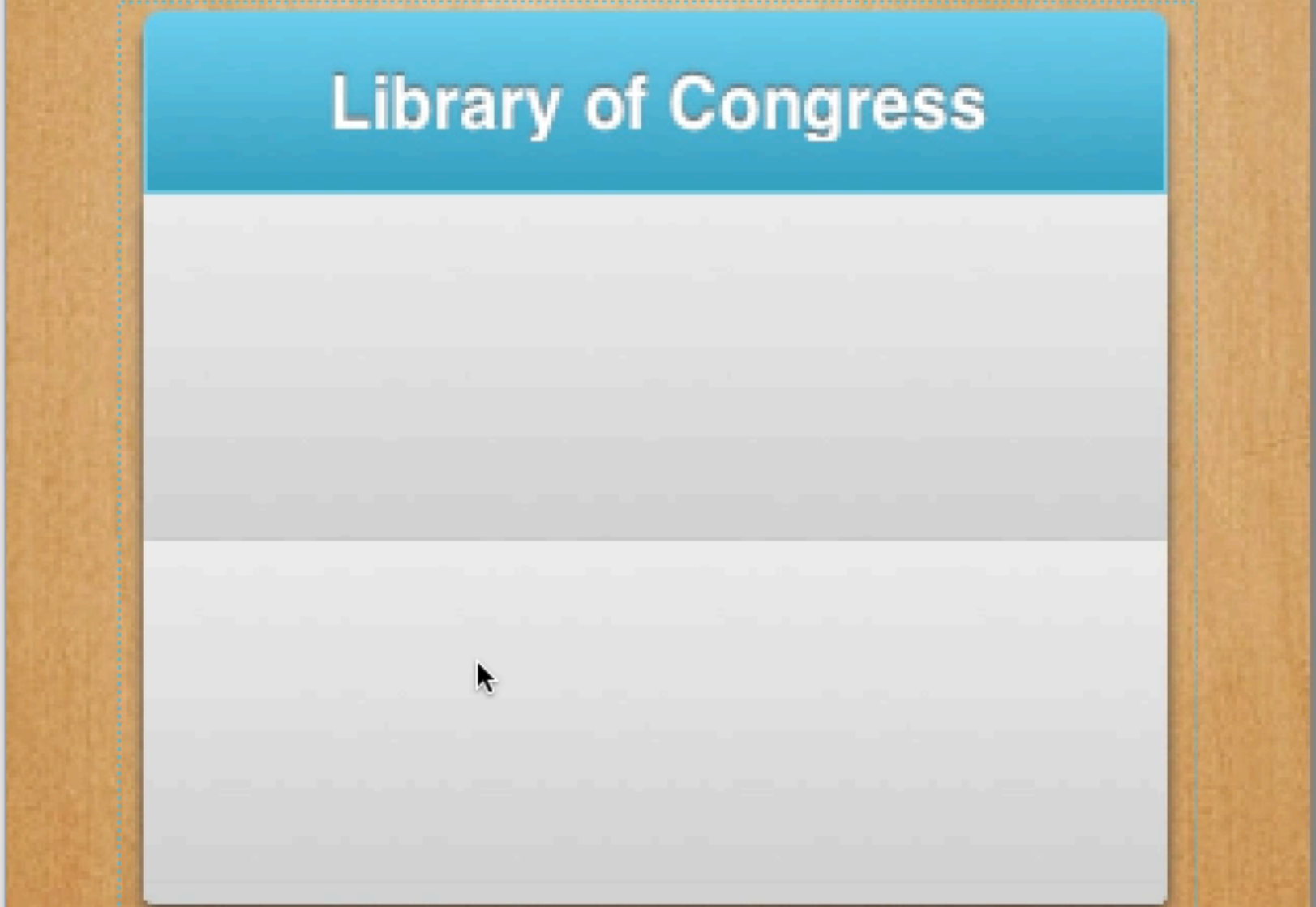
Shapes & Groups

- Frame
- Header Title Text
- Footer Rounded Rectangle
- Cell Rectangle 2
- Cell Rectangle
- Header Rounded Rectangle

No Selection

+ Colors Gradients Shadows Images

- Dark Shadow
- Header Base Color
- Cell Base Color
- Cell Outline Color
- Header Upper Color
- Header Lower Color



iOS ▸ Objective-C | iOS 5+ | Default Origin | ARC | Export | Retina | Canvas

```
[footerRoundedRectanglePath stroke];


//// Header Title Text Drawing
CGRect headerTitleTextRect = CGRectMake(CGRectGetMinX(frame) + 22, CGRectGetMinY(frame) + 14, 221, 20);
```

Run Stop Scheme Breakpoints

Running Librobot on iPhone 6.0 Simulator

Project ⚠ 5

Editor View Organizer

Librobot 〉 Librobot 〉 MainStorybo… 〉 MainStoryboard_iPhone.storyboard (English) 〉 No Selection

- **Librobot** — 2 targets, iOS SDK 6.0
  - **RestKit.xcodeproj** — 4 targets, multiple platforms
  - Librobot
    - Views
      - LIBRButton.h
      - LIBRButton.m
      - LIBRTestView.h
      - LIBRTestView.m
    - Controllers
      - LIBRNavigationController.h
      - LIBRNavigationController.m
      - LIBRSearchTableViewController.h
      - LIBRSearchTableViewController.m
      - LIBRPageViewController.h
      - LIBRPageViewController.m
    - Models
      - LIBRAppDelegate.h
      - LIBRAppDelegate.m
      - MainStoryboard_iPhone.storyboard
      - MainStoryboard_iPad.storyboard
      - LIBRFirstViewController.h
      - LIBRFirstViewController.m
      - first.png
      - first@2x.png
      - LIBRSecondViewController.h
      - LIBRSecondViewController.m
      - second.png
      - second@2x.png
    - Supporting Files
    - XML Support
  - LibrobotTests
  - Frameworks
  - Products

Tab Bar Controller Scene
- Tab Bar Controller
- First Responder
- Exit
- Relationship "view controllers" to Se…
- Relationship "view controllers" to Li…

Search Table View Controller – Searc…
- Search Table View Controller – Search
- First Responder
- Exit

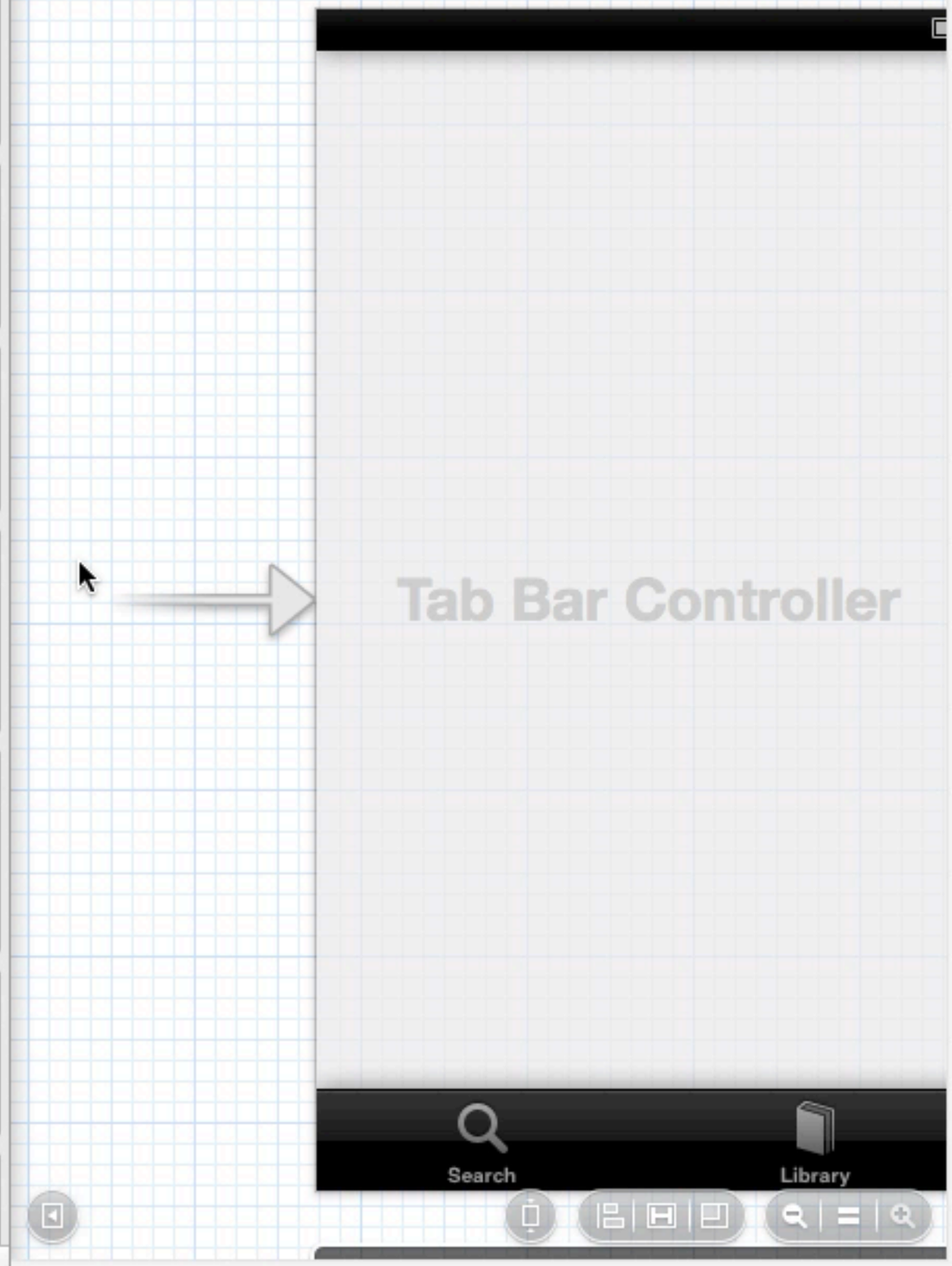
Table View Controller – Library Scene
- Table View Controller – Library
- First Responder
- Exit

Navigation Controller – Library Scene
- Navigation Controller – Library
- First Responder
- Exit
- Relationship "root view controller" t…

Navigation Controller – Search Scene
- Navigation Controller – Search
- First Responder
- Exit
- Relationship "root view controller" t…

View Controller – Search Results Scene
- View Controller – Search Results
- First Responder
- Exit

View Controller Scene
- View Controller



Librobot

the iconfactory

7204 West Friendly Ave • Building 2 • Unit H
Greensboro, NC 27410 USA
336.299.5251 / design@iconfactory.com
http://design.iconfactory.com

invoice

00074511
1/8/13

client

Richard Wolf
713-339-0574

richwolf@uic.edu

Richard K. Wolf
5055 South Lamon Avenue
Chicago, IL 60638-2104, USA

job description

client PO#

detailed billing

task description	units	rate	sub total
Downpayment for iOS icon design for Librobot. Due upon receipt. If Questions contact cheryl@iconfactory.com	4.2	$175.00	$735.00

the iconfactory

Librobot iOS icon concepts

1

2

3

4

Average App Store Review Times

iOS App Store

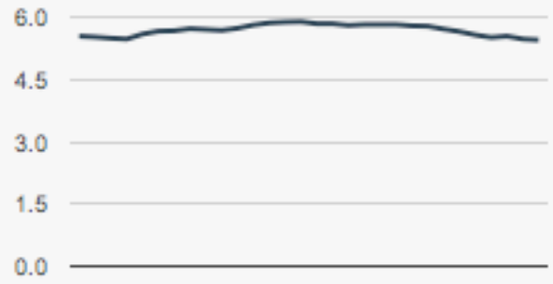
5 days

Based on 373 reviews in the last 30 days.

More Data

- ★ Distribution Chart
- ★ Raw Twitter Data
- ★ Annual Trend Graph

Rolling 30 Day Trend



Mac App Store

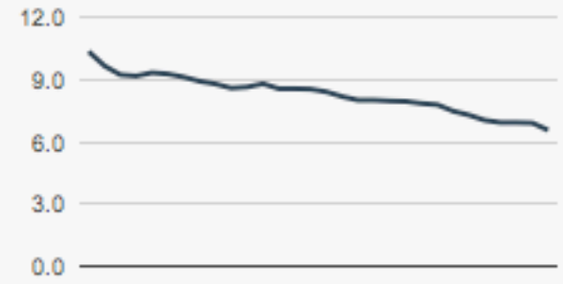
6 days

Based on 58 reviews in the last 30 days.

More Data

- ★ Distribution Chart
- ★ Raw Twitter Data
- ★ Annual Trend Graph

Rolling 30 Day Trend



What is this? This site tracks the average App Store review times for both the iOS and the Mac App Store using data crowdsourced from iOS and Mac developers on Twitter.

Who is collecting this data? We are Shiny Development. We created this site in the hope that it would provide some useful information to developers around the world. We also run iOS Dev Weekly, a weekly email with 10 or so links to the best blog posts and articles on iOS development for the week. If you are interested in the data here then it is likely that you will find something of interest in iOS Dev Weekly each week. You should subscribe!

Where does this data come from? This is not official Apple data. It is based only on anecdotal data from people tweeting their latest review times using the #iosreviewtime or #macreviewtime hash tags on Twitter.

iTunes Connect

Richard Wolf, Richard Wolf Sign Out

UISprocket

Review Status

The most recent version of your app has been rejected. Before resubmitting it, visit the Resolution Center for details on outstanding issues.

Resolution Center

App Information Edit

Identifiers

SKU **00001**

Bundle ID **edu.uillinois.UISprocket**

Apple ID **528840501**

Type **iOS App**

Default Language **English**

Links

View in App Store

Rights and Pricing

Manage In-App Purchases

Manage Game Center

Set Up iAd Network

Newsstand

Delete App

Versions

Current Version

Version **1.0**

Status **Rejected**

Date Created **May 18, 2012**

App Summary

Resolution Center

Use the Resolution Center to correspond with App Review until all issues with your app version have been resolved.

Binary Rejected May 25, 2012 04:23 PM

Reasons for Rejection:

2.12: Apps that are not very useful, are simply web sites bundled as apps, or do not provide any lasting entertainment value may be rejected

May 25, 2012 04:23 PM. From Apple.

2.12

We found that the features and/or content of your app were not useful or entertaining enough, or your app did not appeal to a broad enough audience, to be in compliance with the App Store Review Guidelines.

For example, your app includes a very limited set of features. It would be appropriate to add iOS specific UI and functionality rather than displaying just text and table views.

We understand that there are no hard and fast rules to define this but it can be helpful to look at the apps featured on the App Store to get a feel for the type of experience our users expect.

We encourage you to review your app concept and evaluate whether you can incorporate different content and features that are in compliance with the Guidelines.

For app design information, check out the videos: "Getting Started video: The Ingredients of Great iPhone Apps" and "iPhone User Interface Design," available on the iOS Developer Center, and the iOS Human Interface Guidelines in particular, the sections, "Great iOS Apps Embrace the Platform and HI Design Principles" and "Human Interface Principles".

If you cannot – or choose not to – revise your app to be in compliance with the App Store Review Guidelines, you may wish to build an HTML5 web app instead. You can distribute web apps directly on your web site; **the App Store does not accept or distribute web**

Librobot

Librobot

App Store by April 2nd

Librobot

App Store by April 2nd

Seriously!

Librobot

App Store by April 2nd

Seriously!

Be there!

Last thing...

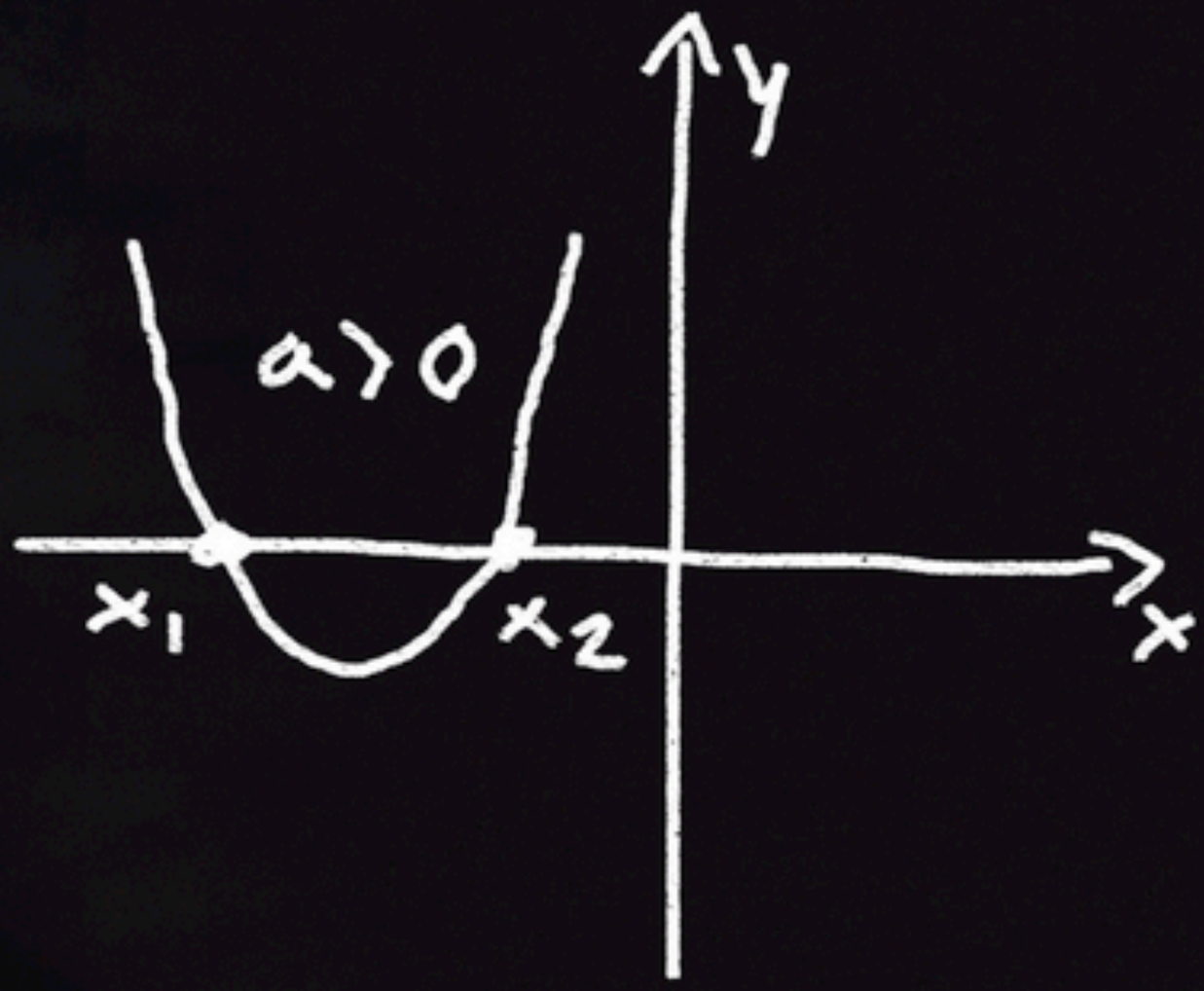
Why REST matters

What are the major milestones in the Information Age?

$$I_T \equiv kC_\$$$

$$I_T \equiv kC_\$$$

The importance of any technology
is directly proportional to the amount of money
involved in its corresponding court case



$$ax^2 + bx + c > 0 \Leftrightarrow x \in (x_1; x$$

Apple Computer, Inc. v. Microsoft Corporation

From Wikipedia, the free encyclopedia

This article **needs additional citations for verification**. Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed. *(March 2012)*

Apple Computer, Inc. v. Microsoft Corporation, 35 F.3d 1435 (9th Cir. 1994) was a copyright infringement lawsuit in which Apple Computer, Inc. (now Apple Inc.) sought to prevent Microsoft and Hewlett-Packard from using visual graphical user interface (GUI) elements that were similar to those in Apple's Lisa and Macintosh operating systems. The court ruled that, "Apple cannot get patent-like protection for the idea of a graphical user interface, or the idea of a desktop metaphor [under copyright law]..."[1] In the midst of the *Apple v. Microsoft* lawsuit, Xerox also sued Apple alleging that Mac's GUI was heavily based on Xerox's.[2] The district court dismissed Xerox's claims without addressing whether Apple's GUI infringed Xerox's.[3] Apple lost all claims in the *Microsoft* suit except for the ruling that the trash can icon and folder icons from Hewlett-Packard's NewWave windows application were infringing. The lawsuit was filed in 1988 and lasted four years; the decision was affirmed on appeal in 1994,[1] and Apple's appeal to the U.S. Supreme Court was denied.

Contents [hide]

Apple Computer, Inc. v. Microsoft Corporation

Court	United States Court of Appeals for the Ninth Circuit
Full case name	*Apple Computer, Inc. v. Microsoft Corporation and Hewlett-Packard Co.*
Date decided	September 19, 1994
Citation(s)	35 F.3d 1435; 63 USLW 2259,

1: Personal Computers

United States v. Microsoft

From Wikipedia, the free encyclopedia

United States v. Microsoft was a set of civil actions filed against Microsoft Corporation pursuant to the Sherman Antitrust Act of 1890 Sections 1 and 2 on May 18, 1998 by the United States Department of Justice (DOJ) and 20 states. Joel I. Klein was the lead prosecutor. The plaintiffs alleged that Microsoft abused monopoly power on Intel-based personal computers in its handling of operating system sales and web browser sales. The issue central to the case was whether Microsoft was allowed to bundle its flagship Internet Explorer (IE) web browser software with its Microsoft Windows operating system. Bundling them together is alleged to have been responsible for Microsoft's victory in the browser wars as every Windows user had a copy of Internet Explorer. It was further alleged that this restricted the market for competing web browsers (such as Netscape Navigator or Opera) that were slow to download over a modem or had to be purchased at a store. Underlying these disputes were questions over whether Microsoft altered or manipulated its application programming interfaces (APIs) to favor Internet Explorer over third party web browsers, Microsoft's conduct in forming restrictive licensing agreements with original equipment manufacturers (OEMs), and Microsoft's intent in its course of conduct. Microsoft stated that the merging of Microsoft Windows and Internet Explorer was the result of innovation and competition, that the two were now the same product and were inextricably linked together and that consumers were now getting all the benefits of IE for free. Those who opposed Microsoft's position countered that the browser was still a distinct and separate product which did not need to be tied to the operating system, since a separate version of Internet Explorer was available for Mac OS. They also asserted that IE was not really free because its development and marketing costs may have kept the price of Windows higher than it might otherwise have been. The case was tried before Judge Thomas Penfield Jackson in the United States District Court for the District of Columbia. The DOJ was initially represented by David Boies.

Contents [hide]

2: The Internet

Apple Inc. v. Samsung Electronics Co., Ltd.

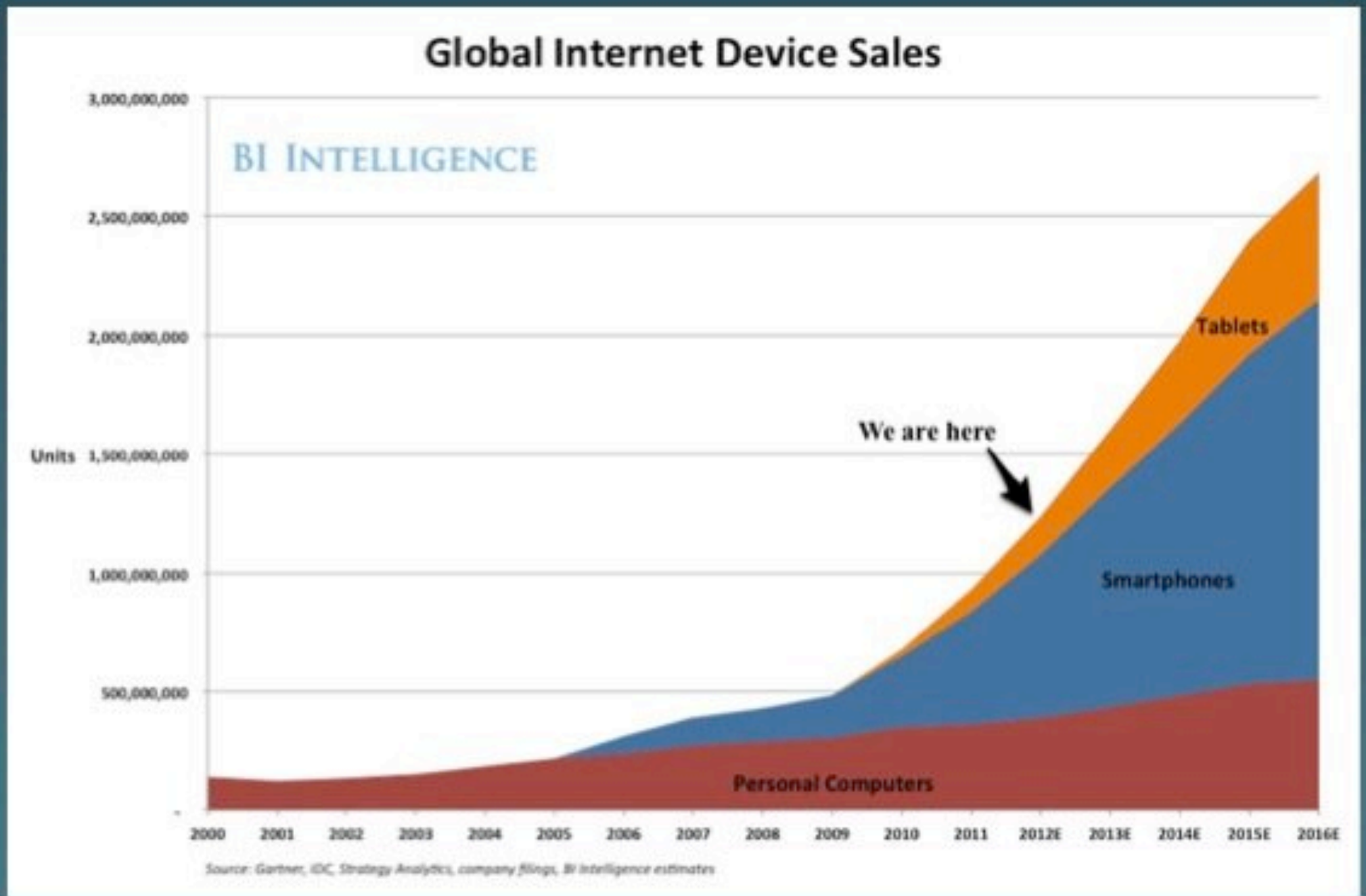
From Wikipedia, the free encyclopedia

Apple Inc. v. Samsung Electronics Co., Ltd. was the first of a series of ongoing lawsuits between Apple Inc. and Samsung Electronics regarding the design of smartphones and tablet computers; between them, the companies made more than half of smartphones sold worldwide as of July 2012.[1] In the spring of 2011, Apple began litigating against Samsung in patent infringement suits, while Apple and Motorola Mobility were already engaged in a patent war on several fronts.[2] Apple's multinational litigation over technology patents became known as part of the mobile device patent wars: extensive litigation in fierce competition in the global market for consumer mobile communications.[3] By August 2011, Apple and Samsung were litigating 19 ongoing cases in nine countries; by October, the legal disputes expanded to ten countries.[4][5] By July 2012, the two companies were still embroiled in more than 50 lawsuits around the globe, with billions of dollars in damages claimed between them.[6] While Apple won a ruling in its favour in the U.S., Samsung won rulings in South Korea and Japan, and the UK.

Contents [hide]

3: Mobility!

In a few years, the number of mobile devices will DWARF the number of PCs



BUSINESS INSIDER

What's our response?

On this site

- IT Governance
- Campus Initiatives
- CITES
  - Annual Reports
- IT Policies

Additional links

- IT Accessibility
- IT Excellence
- AITS
- Executive CIO

Search

Foundations for an Illinois Mobile Strategy

This white paper presents some important considerations related to mobile computing and institutional strategy. Its purpose is to stimulate broader conversation and creative thinking on mobile computing's potential to address student, faculty, and staff needs in innovative ways. The paper concludes with specific next steps, designed to tap into our growing body of mobile-computing expertise, engage key players from the outset, and identify collaborative opportunities on which to build and implement an effective mobile strategy.

In this white paper...

> *"Mobile computing" refers to the use of mobile apps and mobile-friendly web sites on portable Internet-capable devices (such as smart phones, iPads, tablet PCs, and other devices offering portability, easy network access, and other conveniences).*
>
> *The purpose of a "mobile computing strategy" for Illinois would be to bring more coherence to decision-making related to mobile computing opportunities, and to foster development of an expert community that could share their knowledge with others. In other words, the strategy would (1) help people at the institutional, organization, and individual level determine whether they need a mobile presence, and if so, determine what it should do and how it could do it most effectively; and (2) minimize reinvention of the wheel through shared expertise.*
>
> *The tangible deliverables of an Illinois mobile strategy would be (1) readily available descriptions of key issues for decision-makers, and (2) a collaborative expert community with opportunities for training and sharing expertise.*

Contributors from across campus will continually shape the content of campus mobile computing

*Instances have already arisen where **proposed mobile apps (put forward by students or the IT community) have needed access to institutional data** related to class schedules, course offerings, rosters, etc. A campus mobile strategy needs to consider data access policy issues that may arise at the unit, campus, and university level, with special concern for consistency and appropriate data stewardship.*

Showing results for foursquare.

iPhone Apps

Foursquare
Social Networking
Downloaded

HootSuite for Twitter &...
Social Networking
Free

NearMe™
Lifestyle
Free

Localscope
Navigation
Free

Ban.jo
Social Networking
Free

Lunchbox
Food & Drink
Free

Venue Map for foursquare
Navigation
Free

Localmind
Social Networking
Downloaded

BuzzMob
Social Networking
Free

Magic Hour - Camera &...
Photo & Video
$1.99

My Places for Google Maps
Navigation
Free

Checkie for foursquare
Social Networking
Free

SocialHub for Facebook Twitt...
Social Networking
$1.99

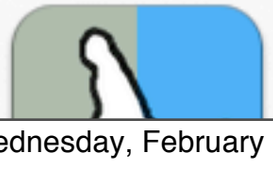
Glassmap
Social Networking
Free

Plan X - Super Villain Wars
Entertainment
Free

Zombie Hood
Games
Free

Photo+
Photo & Video
Free

StepTrace: Personal Track...
Social Networking
Free



All
iPhone Apps
iPad Apps
Albums
Songs
Podcasts
Podcast Episodes
Movies
Books
TV Episodes
TV Seasons

ARTISTS AND MORE

Foursquare Labs, Inc. ›
Software Developer

Foursquare United Generation ›
Christian & Gospel

4Square ›
Singer/Songwriter

Foursquare ›
Dance

Four Square ›
Rock

Google play

foursquare

SHOP | MY MUSIC | MY BOOKS | MY MAGAZINES | MY MOVIES & TV | MY ANDROID APPS

Android Apps | All prices | SafeSearch: Off | Sort by: Relevance

Android Apps At least 1000 results

Foursquare
FOURSQUARE / SOCIAL
★★★★☆ (150,370)
EDITORS' CHOICE
INSTALL

Foursquare helps you and your friends make the most of where you are. Join the over 25 million people who are already on Foursquare. Download the free app now! ✓ Shar...

Foursquare Timescape™
SONY MOBILE COMMUNICATIONS / SOCIAL
★★★★☆ (1,684)
INSTALL

Get foursquare updates in Timescape™, on your Sony Ericsson Xperia™ phone. The foursquare Timescape ™ Extension delivers your latest foursquare Network Activity direct...

Foursquare™ Timescape™
SONY MOBILE COMMUNICATIONS / SOCIAL
★★★★½ (810)
INSTALL

Get Foursquare updates in Timescape™, on your Xperia™ phone. The foursquare Timescape ™ Extension delivers your latest foursquare activity directly into the Timescape™...

Foursquare Sync
WATTO STUDIOS / SOCIAL
★★★★☆ (1,371)
INSTALL

Add and sync your Foursquare friends into your contacts address book. Adds your Foursquare friends into your Contacts address book, and re-syncs them when their detail...

Foursquare for Sony Tablet
FOURSQUARE / SOCIAL
★★★½☆ (40)
INSTALL

Foursquare for Sony Android tablet. ========== In case you are unable to install or update from this screen, please uninstall and reinstall the app on y...

Venue Map for foursquare
KOSUKE OGAWA / TRAVEL & LOCAL
★★★☆☆ (88)

Venue Map for foursquare helps you find venues around the world. Venue Map for foursquare helps you find venues around the world. You can view venues on the map and

foursquare API

The foursquare API gives you access to all of the data used by the foursquare mobile applications, and, in some cases, even more.

GET STARTED

Announcements

- Developers can now preview our new Apps Platform, which makes it easier for users to discover and engage with apps built on the foursquare API.
- Our forum has moved to foursquare's StackOverflow tag. The Google Groups mailing list is now an announcements-only list.

"Save to foursquare" Button

Do you publish content about places? Embed the 'Save to foursquare' button so your readers can bookmark those places and get a reminder when they're out exploring!

Explorer

Apps Showcase

Getting Started
Core Concepts
Advanced Topics
Technical Guides
API Reference
Login
Graph API
FQL
Legacy REST
SDK Reference

Objects
Achievement(Instance)
Album
Application
Checkin
Comment
Domain
Errors
Event
FriendList
Group
Insights
Link
Message
Note
Offer
Order

Graph API

API Reference › Graph API

Getting Started

If you're new to the Graph API you should start with the **Graph API Getting Started Guide**.

The Graph API is the primary way that data is retrieved or posted to Facebook. The Getting Started Guide contains an overview of the basics of the API, walks you through using the Graph API Explorer, shows you how names work, how permissions work, what connections are and puts it all together so the rest of this reference make sense.

Reading Data

Pictures
Pictures are available on many objects and are the most commonly used object in the graph. This document covers how to access them. Pictures are not Photographs. For Photographs that people upload please see our Photo and Album reference API documents.

Selecting Results
When accessing objects in the graph, you can control which fields are returned.

Pagination
Many of the Graph APIs let you get data in small sets, with a way to page forward and backwards in time. This document covers how to use the pagination arguments and results.

Search
You can search through public objects with the Graph API. This document covers the basics on the objects you can search and how to page through results.

Dates
Many APIs return dates. This document covers the default format we use at Facebook and how you can change it.

Data Access - Login, Privacy and Permissions
Much of the data you'll be accessing via the Graph API requires the user to allow you to access it. This includes reading anything beyond public data or writing data to a user's timeline. This document gives you pointers to what you need to do about the topics of privacy, permissions, login and auth tokens.

Search Documentation

Overview

Authentication

Real-time

iPhone Hooks

API Console

Endpoints

Embedding

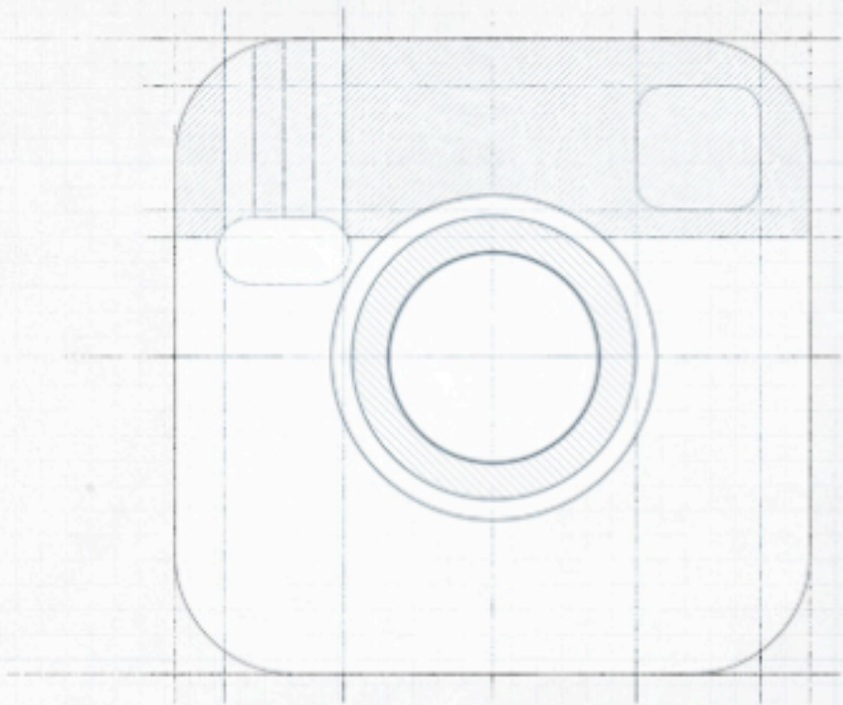
Libraries

Forum

Hello Developers.

The first version of the Instagram API is an exciting step forward towards making it easier for users to have open access to their data. We created it so that you can surface the amazing content Instagram users share every second, in fun and innovative ways.

Build something great.



Register Your Application then dive into the documentation

Getting Started

1 → 2 → 3

Register

We'll assign an OAuth client_id and client_secret for each of your applications

Authenticate

Have our user authenticate and authorize your application with Instagram

Start making requests!

Make requests to our API Endpoints with your authenticated OAuth credentials

Explore the world of Google Developer Tools

I am a...

Mobile Developer
Build, promote, earn, measure, and enhance your mobile app.

Startup
Tools for your startup's needs and Google integration.

Games Developer
Build games for web and mobile using Google technologies.

Webmaster
Get best practices for having your content found on Google.

Web Developer
Use the latest HTML5 technologies and Chrome developer tools to build cutting edge web apps.

Developer ready to monetize
Maximize the value of your online content with revenue and ad management tools from Google.

Technologies and Tools

- Google+
- Google Maps
- Android
- Google Apps
- Cloud Platform
- Google TV
- Chrome
- Commerce
- Games
- Google Analytics
- Advertise
- Reach a global audience

Last updated January 16, 2013.

University of Waterloo Open Data API

Because more data is better

Features

The YouWaterloo Public Data API allows anyone to build their own programs and applications using data extracted from the University of Waterloo websites. The API features more than 25 methods of accessing various data accross the University of Waterloo network.

Accessing the API

All calls are made to the following URL with the required parameters for a given service.

```
http://api.uwaterloo.ca/public/v1/
```


```
- data: [
    - {
        DeptAcronym: "CS",
        Title: "Introduction to Artificial Intelligence",
        Number: "486",
      - Prerequisites: [
          - [
              "or",
            - [
                "pair",
              - {
                  Department: "CM",
                  Number: "339"
                },
              - {
                  Department: "CS",
```

UNIVERSITY of WASHINGTON

UW Web Services

Learn

Learn more about Web Services so you know how to best use it to improve your business.

MORE +

Discover

Discover what's going on with Web Services here at the University of Washington with Tweets, UserVoice, and Web Services in development.

MORE +

Connect

Connect to our set of Web Services and find the right one you need.

MORE +

What is a Web Service?

Web Services at the University of Washington is a method of getting important institutional data from and/or into your applications. Web Services are a way for applications or systems to talk to one another and does not usually involve human interaction. Currently, the use of Web Services is mainly targetted for application developers who would write code against them. Click here to learn more

What's new

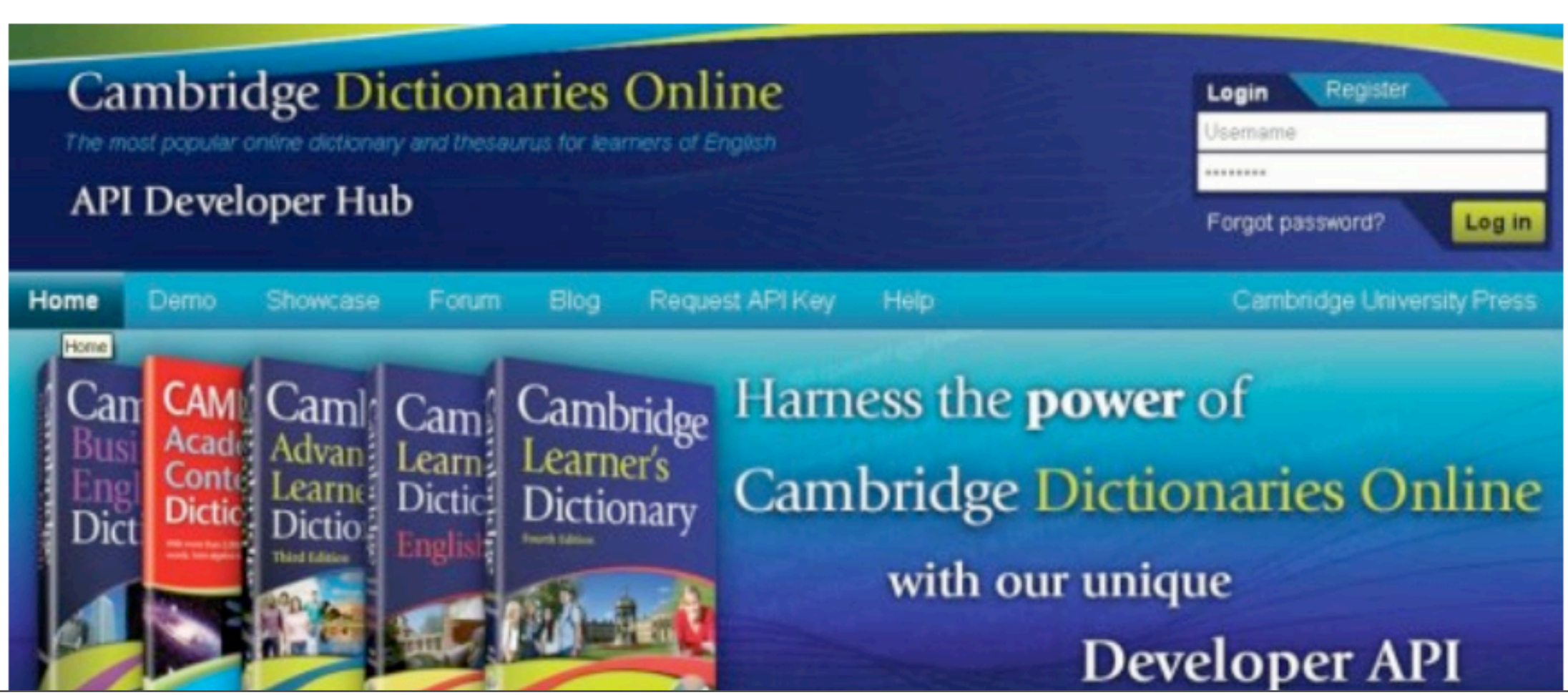
Find out more at our Blog

- SWS adds Degree Audit and Enhances Section Search
- Narrow Down Appointees By Employee Type in HRP WS
- Space Web Service 1.0 has been released
- FWS has been Updated… by Procrastinators!
- SWS adds Current, Next, and Previous Term resources

Cambridge University Press Adds API to its Vocabulary

Eric Carter, September 4th, 2012 Comments (1)

Less than two months ago, Merriam-Webster announced that some of its references would be available via an API. Now, competitor Cambridge University Press has followed suit with the Cambridge Dictionaries Online API. Currently, Cambridge offers five dictionaries through an API (i.e. Cambridge Advanced Learner's Dictionary, Cambridge Dictionary of American English, Cambridge Business English Dictionary, Cambridge Learner's English-Turkish Dictionary, and Cambridge Leaner's Dictionary). Cambridge Dictionaries' reference systems manager, Dominic Glennon, commented: "The API makes our dictionary data easily available to any developer with a good idea and we can't wait to see what they do with it."



2012 - 2013 Mobile App Challenge

THE UNIVERSITY OF CHICAGO

THE BEST APP IDEAS COME FROM EVERYDAY EXPERIENCE

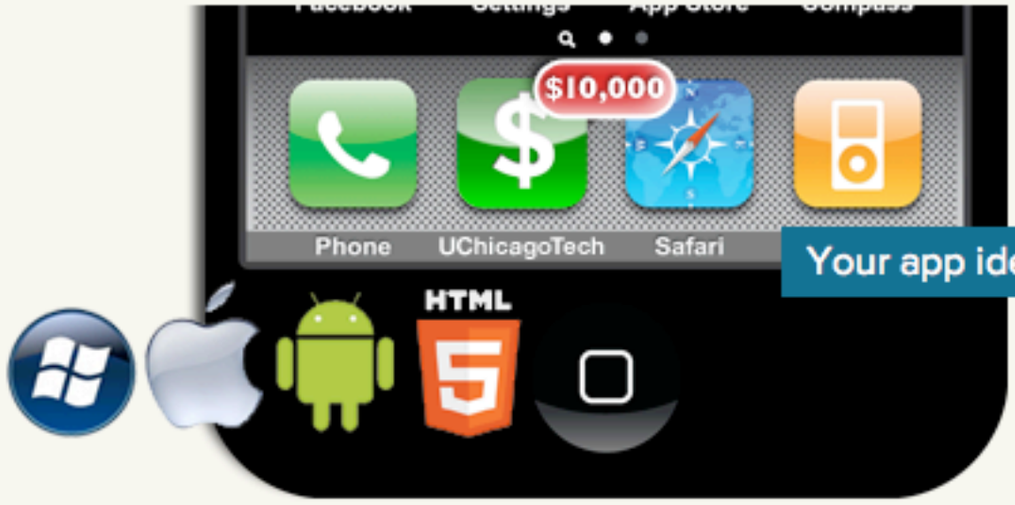
Never know when to water your plants? **How about an app that's your digital green thumb.**

Always forgetting names at parties? **Perhaps an app that captures names before you forget.**

Eating too much fast food? **Why not an app that sets off an alarm, calling your friends if you're too close to temptation.**

Doing research that few people know about? **Turn it into an app.**

Get the idea? Submit your pitch now!



Your app idea could win you $10,000.

Not a programmer? No problem! We're looking for the best ideas UChicago has to offer. Get all the details »

THE APP CHALLENGE IN A NUTSHELL:

Q: WHO CAN PARTICIPATE?

A: JUST ABOUT ANYONE, SOLO OR AS A TEAM

The Mobile App Challenge is open to all **Faculty**, **Students**, and **Staff (full, part-time/temporary)** at the University*.

Note: Full- and part-time employees of IT Services, Polsky Center for Entrepreneurship, and UChicagoTech are not eligible,* ***with the exception of student employees currently enrolled at the University.* *Questions about eligibility? Please contact us.*

Q: WHAT TYPES OF APP IDEAS QUALIFY?

A: JUST ABOUT ANYTHING FOR ANYONE

Last year, we focused on apps that would benefit the UChicago community. This time, we're opening the field. You can submit an idea in one (or more) of the following categories, for the audience of your choice:

- Business (Productivity; Reference; Finance)
- Education
- Entertainment (Games; Photo & Video; Music; Food & Drink)
- Medical (Health & Fitness; Lifestyle)

SPONSORS

IT Services

UChicagoTech

Chicago Booth | Polsky Center for Entrepreneurship

UCHICAGO MOBILE APP CHALLENGE ON TWITTER

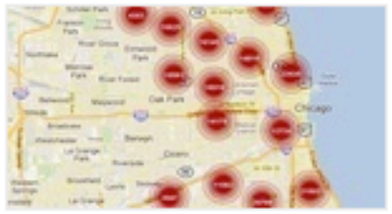
Tweets — Follow

9h

UChicagoAppChallenge

@UChicagoAppChal

Deadline is ONE MONTH AWAY! Don't miss out on your opportunity to win $10K with your great idea! ow.ly/f3DJc



Crimes - 2001 to present

Review reported incidents of crime that occurred in Chicago from 2001 to present.

Budget Ordinance - 2013 Appropriations

View the 2013 City operating budget as approved by the City Council.

Get a Flu Shot

Find a Chicago Department of Public Health free flu clinic near you. For more information about the flu, go to http://bit.ly/9uNhqG.

Chicago Transit Authority Datasets

Explore CTA data, including bus routes, 'L' lines, ridership information and fare card sales outlet locations.

Search

View Types

- Datasets
- External Datasets
- Files and Documents
- Filtered Views
- Charts
- Maps
- Calendars
- Forms

Categories

- Administration & Finance
- Buildings
- Community & Economic Development
- Education
- Environment & Sustainable Development

View All

Topics

- crime
- gis
- performance metrics
- police

Search & Browse Datasets and Views

Most Relevant

	Name	Popularity	Type
1.	**Towed Vehicles** Transportation vehicles, streets This dataset displays location for vehicles that have been towed and impounded by the	2,770 views	
2.	**Relocated Vehicles** Transportation vehicles, streets This dataset presents current and former locations of vehicles that have been relocated	2,114 views	
3.	**Chicago Traffic Tracker - Congestion Estimates by Regions** Transportation traffic This dataset contains the current estimated congestion for the 29 traffic regions. For a	194 views	
4.	**Chicago Traffic Tracker - Congestion Estimates by Segments** Transportation traffic This dataset contains the current estimated speed for about 1250 segments covering 300	705 views	
5.	**Current Employee Names, Salaries, and Position Titles** Administration & Finance personnel This dataset is a listing of all current City of Chicago employees, complete with full	106,847 views	
6.	**CTA - Map of Fare Media Sales Outlets** cta, chicago transit authority	94,117 views	
7.	**Crimes - Map** Public Safety crime, police This dataset reflects reported incidents of crime that have occurred in the City of Chicago	81,060 views	
8.	**Police Stations** Public Safety facilities, gis Chicago Police district station locations and contact information.	57,521 views	
9.	**Building Permits** Buildings permits Permits issued by the Department of Buildings in the City of Chicago from 2006 to the	48,127 views	
10.	**Fire Stations** Public Safety public safety, facilities, gis Fire station locations	44,219 views	

- Press Releases
- Reports & Notices
- @ the CTA Newsletter
- Charter a Train
- Connections (TV Show)
- Developer Center
  - CTA Train Tracker API
  - CTA Bus Tracker API
  - Customer Alerts API
  - Scheduled Service Data (GTFS)
  - Further Reading
  - DIY Transit Info Display
  - CTA Trademarks & You
  - Developer License Agreement & Terms of Use
  - Apps
- Going Green
- Open Data
- Performance
- Planning & Expansion

Developer Center

Welcome, developers!

We're glad you're interested in developing applications using data from CTA. This set of data offerings will be able to help you create interesting new applications and mash-ups that'll help people get the information they want or need about CTA services, wherever they want to receive it.

The information provided through data feeds includes static schedule and service data using an open standard, and APIs that can get you up-to-the-minute information from both CTA Bus Tracker SM and CTA Train Tracker SM. We also have a Customer Alerts API that is a feed of both planned and unplanned events that affect service, as published on transitchicago.com.

Send us feedback

We'll continually be working to improve the available tools and content, and we'd love to hear what you think. Drop us a line at webmaster@transitchicago.com.

Quick Links

Schedules | Maps | Alerts | Transit Trackers | Chicago Card | Fare Info

Plan a trip

Start (e.g. O'Hare Airport)

End (e.g. 1 N State St, Chicago, IL)

Leave Now More

Get directions with: Google Transit | goroo

About trip planners (and more options)..

System Status

Trains:

Red Line	Normal Service
Blue Line	Normal Service

Showing results for cta.

iPhone Apps

Transit Stop: CTA Tracker (Free)
Navigation
Free

Embark CTA – Train – Chicago L
Navigation
Free

Bus Boy - Chicago CTA B...
Navigation
Free

HopStop Transit Directions for...
Navigation
Free

Transit Stop: CTA Tracker
Navigation
$1.99

Embark Metra
Navigation
Free

Next Transit - for CTA
Navigation
Free

TransitGenie Chicago
Navigation
Free

Arrivals Chicago CTA
Navigation
Free

iTrans Chicago CTA
Navigation
$1.99

RedEye Chicago
News
Free

CG Transit – Public Transpo...
Travel
Free

Buster: The Chicago Bus &...
Travel
$1.99

Chicago Transit Tracker
Travel
Free

Chicago Traffic Tracker
News
Free

myTransit - CTA
Navigation
$0.99

TransitLive - Philly, Boston,...
Travel
Free

Ride Chicago - CTA
Travel
Free

- All
- iPhone Apps
- iPad Apps
- Songs
- Albums
- Books
- iTunes U Collections
- iTunes U Episodes
- Podcasts
- Podcast Episodes

ARTISTS AND MORE

Kramer Concepts, LLC ›
Software Developer

CTA ›
Hip-Hop/Rap

CTA (California Transit Authority) ›
Jazz

Embark, Inc. ›
Software Developer

Ferretti Technologies ›
Software Developer

✓You have interesting data

- ✓ You have interesting data
- ✓ Make your data interesting to me—
  expose it through a REST API

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- ✓ Mobile developers want to make mobile apps for you,
  just setup the REST

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  expose it through a REST API
- ✓ Mobile developers want to make mobile apps for you,
  just setup the REST
- ✓ Your mobile strategy can be that simple

But it can go so terribly terribly wrong...

News

News Archive

» Harvard Library Names Two to New Positions

» Library Launches Student Engagement Pilot Project

» Millions of Harvard Library Catalog Records Publicly Available

» New Andover-Harvard Theological Librarian Announced

» "The Armenians and the Book" Exhibit at Lamont Library

» Library Tech Joins HUIT on April 20

» Faculty Advisory Council Memorandum on Journal Pricing

» Harvard Library Explorer Debuts at Cabot

Millions of Harvard Library Catalog Records Publicly Available

Harvard Library Releases Nearly 100% of Its Records

(See *New York Times* article here.)

April 24, 2012 – The Harvard Library announced it is making more than 12 million catalog records from Harvard's 73 libraries publicly available.

The records contain bibliographic information about books, videos, audio recordings, images, manuscripts, maps, and more. The Harvard Library is making these records available in accordance with its Open Metadata Policy and under a Creative Commons 0 (CC0) public domain license. In addition, the Harvard Library announced its open distribution of metadata from its Digital Access to Scholarship at Harvard (DASH) scholarly article repository under a similar CC0 license.

"The Harvard Library is committed to collaboration and open access. We hope this contribution is one of many steps toward sharing the vital cultural knowledge held by libraries with all," said Mary Lee Kennedy, Senior Associate Provost for the Harvard Library.

The catalog records are available for bulk download from Harvard, and are available for programmatic access by software applications via API's at the Digital Public Library of America (DPLA). The records are in the standard MARC21 format.

"By instituting a policy of open metadata, the Harvard Library has expressed its appreciation for the great potential that library metadata has for innovative uses. The two metadata releases today are prime examples," said Stuart Shieber, Library Board Member, Director of the Office for Scholarly Communication and Professor of Computer Science at Harvard.

John Palfrey, Chair of the DPLA, said, "With this major contribution, developers will be able to start experimenting with building innovative applications that put to use the vital national resource that consists of our local public and research libraries, museums, archives and cultural collections." He added that he hoped that this would encourage other institutions to make their own collection metadata publicly available.

Item API

Note on Usage

Item metadata contributed by Harvard University is offered under a Creative Commons 0 license. Harvard requests the DPLA post the following: "
community norms request attribution and that if others improve this data, they make those improvements equally freely available. In addition, for da
asking users to observe the WorldCat community norms. We believe that observing these community norms will help promote good practices, fos
metadata community."

Note that the API is not intended to be used to acquire DPLA data sets in their entirety. Not only is that an inefficient way to gather the data, it can
others. The DPLA prototype platform has instituted some reasonable limits (3/sec) on the rapidity of requests from a single source. Note also that th
http://openmetadata.lib.harvard.edu/bibdata.

Base URI for the Item type

```
http://api.dp.la/v0.03/item/
```

Basic Query

Basic queries to DPLA include the field you want to search against and your query term squashed together with a colon:

Parameter name	Parameter description
filter	The field and query

A basic query might look something like this:

From a policy perspective, we would need to decide whether we want to make our data available, and what kind of agreement or permissions we would need from [our partners]. ***I am not sure who is interested in our data, or what they would like to [do] with it,*** *but getting that sort of information would help make the case for why we want to do [this], if we decide to go in that direction.*

My response to this was:

If we build it, they will come!


I
W
U
V
Y
O
U