

A hand is reaching out from the right side of the frame towards a crystal ball. The crystal ball is positioned in the center-left of the image and contains a detailed, realistic image of the Earth, showing continents and oceans. The background is a soft-focus outdoor scene with green foliage and a bright, hazy sky. The overall composition suggests a theme of reaching for a goal or a vision.

Resource-Oriented Architecture (ROA) and REST

Scott Davis, ThirstyHead.com



ThirstyHead.com

training done right.



ThirstyHead.com

training done right.



Scott Davis

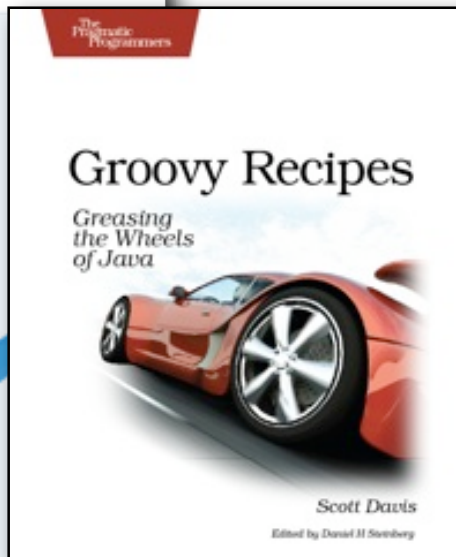


Getting Started with Grails Second Edition

A modern web framework for the Java platform

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Groovy Recipes

Greasing
the Wheels
of Java

Scott Davis

Edited by David H. Sorenberg



developerWorks > Java technology

Mastering Grails Practically Groovy

Web Services



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"In the tradition of Marshall McLuhan... a startlingly fresh look at a new medium."
—Daniel H. Pink, author of Free Agent Nation

a unified theory of the
web

david weinberger

co-author of the cluetrain manifesto




PayPal

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Website Payments Standard

Accept credit cards on your website. 

You Tube Broadcast Yourself™
Worldwide | English

How to link to a single YouTube video

Go to the video that you want to share, and look for the **share details** section



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Here's my contest entry. I better win.
Added on August 8, 2005, 4:00 AM by [Steve](#)

Video Details

Runtime: 01:09 | Views: 467 | Comments: 10
Tags: [whatisthehellismat](#) [steve](#) [dancing](#)
Channels: [People](#)
Recorded: 2005-08-08
Location: [255 First Street, San Francisco, CA](#)

User Details

Video: 22 | **Credits:** 96 | **Friends:** 30
User Name: [Steve](#)
I was on the site 0 minutes ago.
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Video URL (Permalink)

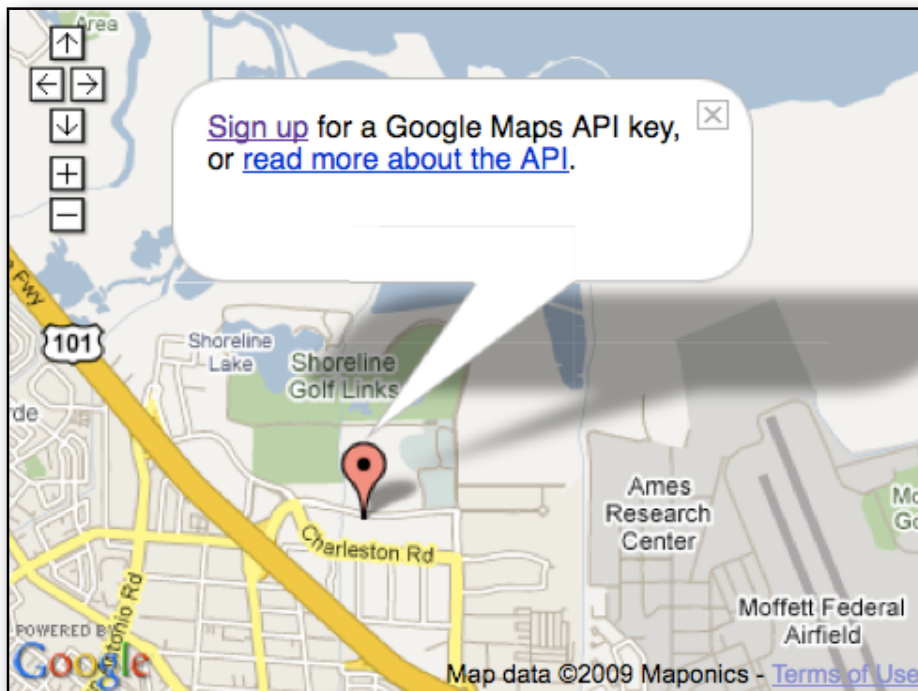
<http://www.youtube.com/watch?v=TTWAc9s21FI>
(E-mail or IM it)

Embeddable Player

`object width="425" height="350">4param name="v" value="TTWAc9s21FI" /</code>
(Put this video on your website. Works on Friendster, eBay, Blogger, MySpace)`

Share Details Section

Google



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When I say, “Web Services”

...what do you think of?

100 CANS

PROCTER & GAMBLE

LENOX

SOAP.



IVORYDALE O.
FACTORIES KANSAS CITY
NEW YORK

CINCINNATI



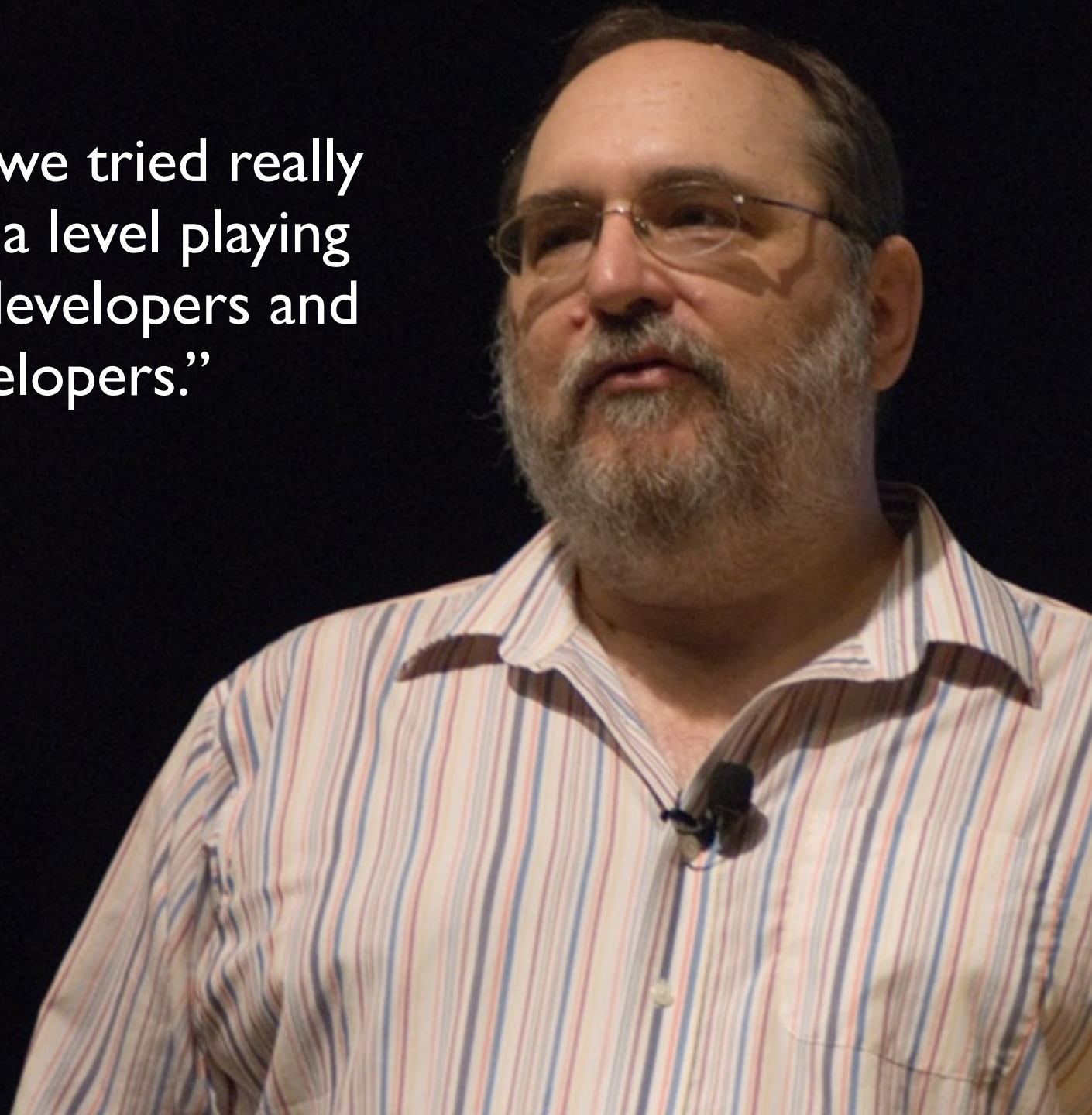
Dave Winer,
co-creator of XML-RPC, SOAP, and RSS:



*I love SOAP.
SOAP was the lawyer of the
family. It was the one that had the
potential to bring everyone
together.*

*But you'd have to say at this point that SOAP is a failure.
How long are we supposed to wait for the magic of SOAP to happen?*


“[With SOAP] we tried really hard to create a level playing field for small developers and large developers.”



I was recently talking with Jeff Barr,
Amazon's chief web services evangelist.

Amazon has both SOAP and REST
interfaces to their web services, and 85%
of their usage is of the REST interface.



A scenic landscape featuring a lush green field in the foreground, a line of trees in the middle ground, and a bright blue sky with scattered white clouds. Several cows are grazing in the field.

Despite all of the corporate hype over the SOAP stack, this is pretty compelling evidence that developers like the simpler REST approach.

I've always liked technologies that have low barriers to entry and grassroots adoption, and simple XML over HTTP approach seems to have that winning combination.



Hot APIs » [Twitter](#) [YouTube](#) [Facebook](#) [Google Maps](#) [Flickr](#) [LinkedIn](#) [More »](#)

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Keeping you up to date with APIs, mashups and the Web as platform. [Learn more »](#)

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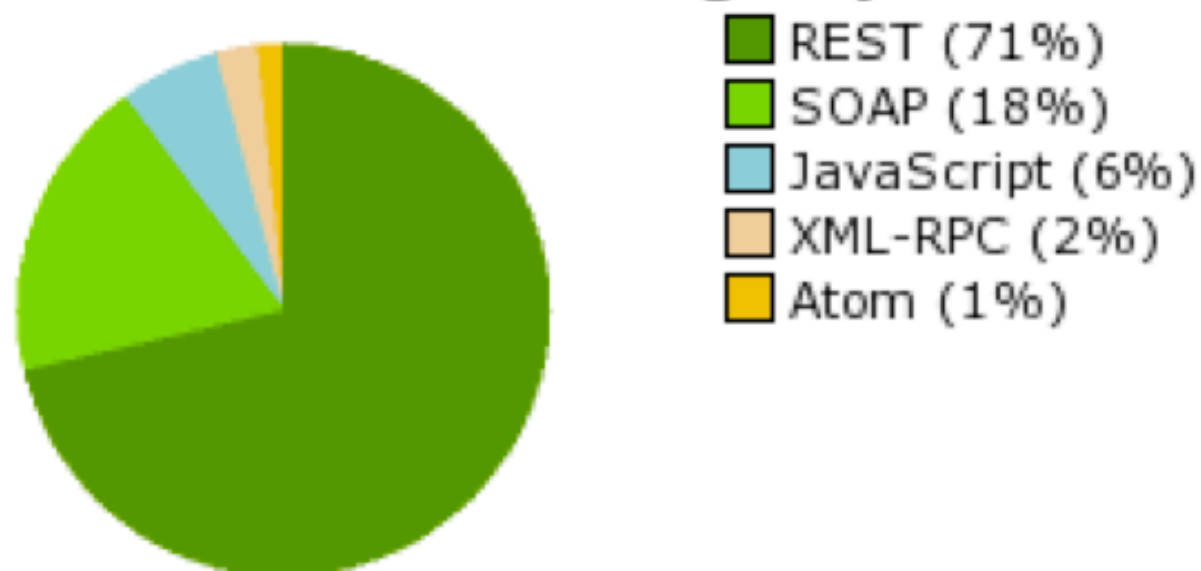
1876
APIs

4734
Mashups



API Protocols

Protocol Usage by APIs



ProgrammableWeb.com 04/08/10

RESTful Geocoder

RESTful Rhyming API



SOAP

A specification

REST

A set of architectural principles

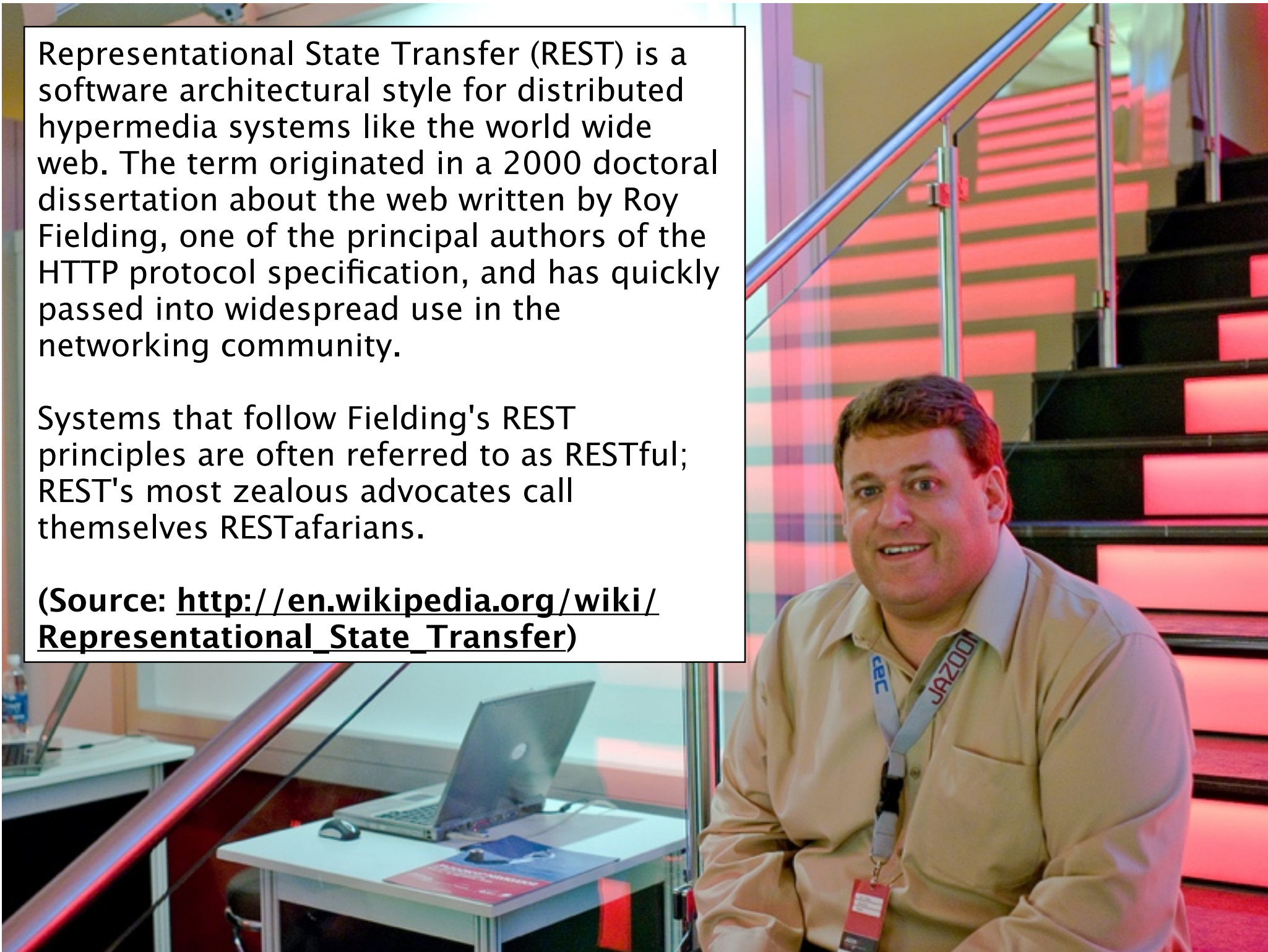
REST is...

REpresentational State Transfer

Representational State Transfer (REST) is a software architectural style for distributed hypermedia systems like the world wide web. The term originated in a 2000 doctoral dissertation about the web written by Roy Fielding, one of the principal authors of the HTTP protocol specification, and has quickly passed into widespread use in the networking community.

Systems that follow Fielding's REST principles are often referred to as RESTful; REST's most zealous advocates call themselves RESTafarians.

(Source: http://en.wikipedia.org/wiki/Representational_State_Transfer)



**Service-Oriented
Architecture**
(RPC, verb-oriented)

**Resource-Oriented
Architecture**
(noun-oriented)

REST versus RPC

[\[edit\]](#)

A REST [web application](#) requires a different design approach than an RPC application. In RPC, the emphasis is on the diversity of protocol operations, or *verbs*; for example, an RPC application might define operations such as the following:

```
getUser()  
addUser()  
removeUser()  
updateUser()  
getLocation()  
addLocation()  
removeLocation()  
updateLocation()  
listUsers()  
listLocations()  
findLocation()  
findUser()
```


With REST, on the other hand, the emphasis is on the diversity of resources, or *nouns*; for example, a REST application might define the following two resource types

```
User {}  
Location {}
```

Each resource would have its own location, such as `http://www.example.org/locations/us/ny/new_york_city`. Clients work with those resources through the standard HTTP operations, such as GET to download a copy of the resource, PUT to upload a changed copy, or DELETE to remove all representations of that resource. Note how each object has its own URL and can easily be cached, copied, and bookmarked. POST is generally used for actions with side-effects, such as placing a purchase order, or adding some data to a collection.

RESTful Grails



SOAP

A SOA implementation

???

A ROA implementation

Syndication



Three things draw you in:

chronology *(newest first)*

syndication
(it comes to you)

permalink *(pass it on)*



Anakin rescues Yoda



Rate: ★★★★★ 1,451 ratings

Views: 1,764,055



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Legodude123

September 12, 2006

[\(more info\)](#)

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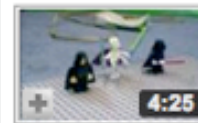
Count Dooku has captured Yoda, and Anakin has been sent by the Jedi Council to free Yoda and destroy Dooku.

URL <http://www.youtube.com/watch?v=LAYF9Gis8>

Embed `<object width="425" height="344"><param ns`

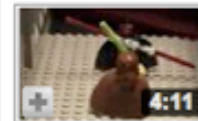
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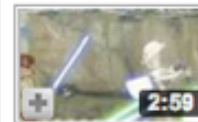
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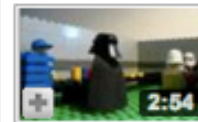
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RSS AND Atom IN ACTION

Web 2.0 Building Blocks

Dave Johnson

 MANNING

Syndication

ATOM FEED

RSS 1.0

RSS 2.0

rome: RSS and Atom Utilities for Java

◀ ▶ ↺ +

https://rome.dev.java.net/

Google

rome: RSS and Atom Utilitie...

• Discussion forums

• Mailing lists

• Documents & files

• Version control - CVS

• Issue tracker

Search

This project

Go

Advanced search

How do I...


• Learn more about this project?

• Use the project home page?

• Get release notes for CollabNet 3.5.1?

• Get help?

Description



ROME: RSS and Atom Utilities for Java

"...ending syndication feed confusion by supporting all of 'em. "

ROME is an open source (Apache license) set of Atom/RSS Java utilities that make it easy to work in Java with most syndication formats:

RSS 0.90, RSS 0.91 Netscape, RSS 0.91 Userland, RSS 0.92, RSS 0.93, RSS 0.94, RSS 1.0, RSS 2.0, Atom 0.3, and Atom 1.0

ROME includes a set of parsers and generators for the various flavors of syndication feeds, as well as converters to convert from one format to another. The parsers can give you back Java objects that are either specific for the format you want to work with, or a generic normalized SyndFeed class that lets you work on with the data without bothering about the incoming or outgoing feed type.

Current Release

ROME 0.9 : (December 11, 2006) [Source](#) | [Binary](#)

What's New: Better support for Content Module, better RSS/Atom mapping and lots of bug fixes.

What is RSS?

- RDF Site Summary
- Rich Site Summary
- Really Simple Syndication
- Nothing: just three plain old letters

*It's a pity nobody used an 'S'
for "Standardization" ...*

RSS' Troubled Childhood

?! →

	<i>When?</i>	<i>Who?</i>
RSS 0.9	Jan 1999	Netscape
RSS 0.91	Jul 1999	Netscape
RSS 0.91	Jun 2000	Dave Winer
RSS 1.0	Dec 2000	RSS-DEV
RSS 0.92	Dec 2000	Dave Winer
RSS 0.93	Apr 2001	Dave Winer
RSS 0.94	Jun 2002	Dave Winer
RSS 2.0	Aug 2002	Dave Winer
RSS 2.0.1	Jul 2003	Harvard

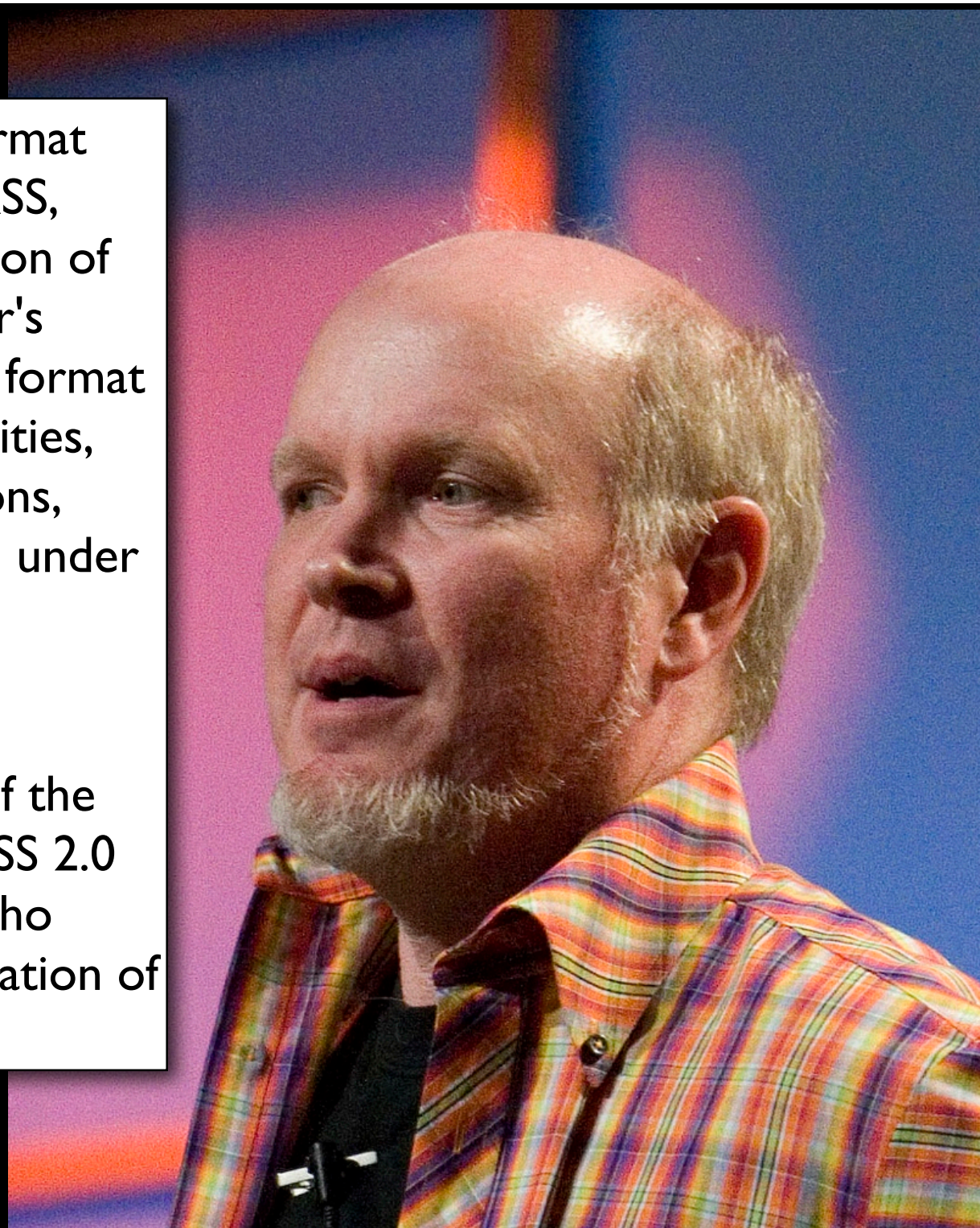
Source: *RSS and Atom in Action*

RSS: Yahoo! Weather



When Atom emerged as a format intended to rival or replace RSS, CNET described the motivation of its creators as follows: "Winer's opponents are seeking a new format that would clarify RSS ambiguities, consolidate its multiple versions, expand its capabilities, and fall under the auspices of a traditional standards organization."

A brief description of some of the ways Atom 1.0 differs from RSS 2.0 has been given by Tim Bray, who played a major role in the creation of Atom:





I E T F

The Atom syndication format was published as an IETF proposed standard in RFC 4287

The Atom Publishing Protocol was published as RFC 5023.

SOAP

A SOA implementation

Atom

A ROA implementation

The Atom Publishing Protocol uses HTTP to edit and author web resources. The Atom Protocol uses the following HTTP methods:

GET is used to retrieve a representation of a resource or perform a query.

POST is used to create a new, dynamically-named resource.

PUT is used to update a known resource.

DELETE is used to remove a resource.

(Source: <http://ietfreport.isoc.org/idref/draft-ietf-atompub-protocol/>)

Example of an Atom 1.0 Feed

[\[edit\]](#)

An example of a document in the Atom Syndication Format:

```
<?xml version="1.0" encoding="utf-8"?>
<feed xmlns="http://www.w3.org/2005/Atom">

  <title>Example Feed</title>
  <subtitle>A subtitle.</subtitle>
  <link href="http://example.org/feed/" rel="self"/>
  <link href="http://example.org/" />
  <updated>2003-12-13T18:30:02Z</updated>
  <author>
    <name>John Doe</name>
    <email>johndoe@example.com</email>
  </author>
  <id>urn:uuid:60a76c80-d399-11d9-b91C-0003939e0af6</id>

  <entry>
    <title>Atom-Powered Robots Run Amok</title>
    <link href="http://example.org/2003/12/13/atom03"/>
    <id>urn:uuid:1225c695-cfb8-4ebb-aaaa-80da344efa6a</id>
    <updated>2003-12-13T18:30:02Z</updated>
    <summary>Some text.</summary>
  </entry>

</feed>
```

Who is using Atom?

Beyond the SOAP Search API

Dec 20, 2006 - [Permalink](#)

Post by Mark Lucovsky, Software Engineer

On December 5th, we stopped accepting new sign-ups for the Google SOAP Search API. This change does not impact current users of the SOAP Search API -- you can continue to execute queries, and we have no plans to turn off the service in the future.

While the product was Google's first API and inspired a lot of Google's current developer products, we are no longer devoting resources to increase the capacity of the service, instead focusing our efforts on the [AJAX Search API](#). While the AJAX Search API does not provide server-side access to search results, it has a number of more powerful features, including access to Video, Maps, Blog Search, and News search results.

Google Data APIs (Beta) Developer's Guide

Use Data from Google on Your Own Website

[Get Started with GData](#)

The Google data APIs ("GData" for short) provide a simple standard protocol for reading and writing data on the web.

GData uses either of two standard XML-based syndication formats: Atom or RSS. It also has a feed-publishing system that consists of the Atom publishing protocol plus some extensions (using Atom's standard extension model) for handling queries.

Each of the following Google services provides a Google data API:

- [Google Apps Provisioning](#)
- [Google Base](#)
- [Blogger](#)
- [Google Calendar](#)
- [Google Code Search](#)
- [Google Notebook](#)
- [Google Spreadsheets](#)

Google Calendar Data API Overview

[Start using the Calendar data API](#)

Google Calendar allows client applications to view and update calendar events in the form of Google data API ("GData") feeds. Your client application can use the Google Calendar data API to create new events, edit or delete existing events, and query for events that match particular criteria.

Here are some of the things you can do with the Calendar data API:

- Create a web front end to let people view their Google Calendar information from within your site.
- Publicize upcoming events by programmatically adding them to Google Calendar.
- Mix and match Google APIs—for example, display upcoming events in Google Maps by combining the Google Calendar data API and the Google Maps API.

The Twitter logo, consisting of the word "twitter" in a light blue, lowercase, sans-serif font, is enclosed within a white speech bubble. To the right of the speech bubble is a blue cartoon bird, the Twitter mascot, facing left.

Introduction

You can use our API to integrate Twitter search results with your own apps, clients, and readers. Check out these [great examples](#) of apps utilizing our API. We currently serve two flavors of our Search API: Atom and JSON.

In the near future, the Search API will be updated to more closely reflect the [Twitter REST API](#), and we'll support XML responses as well.

Formats

Atom

You can grab the search results for any query as a standard Atom feed. For example, this is the [Atom feed](#) for the query [twitter](#). For example, to request search results in Atom, append your URL-encoded query as a parameter to the search method and specify the Atom format:

```
http://search.twitter.com/search.atom?q=<query>
```

JSON

You can also request search results in JSON format. For example, this is the [JSON response](#) for the query [twitter](#). Note that the tweet content is HTML-encoded. To request search results in JSON, append your URL-encoded query as a parameter to the search method and specify the JSON format:

```
http://search.twitter.com/search.json?q=<query>
```

Requests for JSON support an additional URL parameter:

- **callback**: if supplied, the response will use the JSONP format with a callback of the given name.

Ex: <http://search.twitter.com/search.json?callback=foo&q=twitter>

Atom: Twitter API



SOAP

A specification

REST

A set of architectural principles

**Service-Oriented
Architecture**
(RPC, verb-oriented)

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training done right.



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scott@thirstyhead.com

Questions?

Thanks for your time.

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