

# THE UNSUCKABLES

*How Web APIs and Mobile Devices are Shaping the Future of Apple IIgs  
TCP/IP Programming (and Other Topics)*



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# A FLASHBACK TO KANSASFEST 2008

```
The (up to first 255 characters of) text currently on your clipboard is:  
  
http://cgi.ebay.com/Apple-II-Computer-Analog-Joystick-Controller-IBM-PC_W00Qitem  
Z11027192788700cmdZViewItem?hash=item110271927887  
  
Convert to a shorter URL (y/n)? y  
Resolving bit.ly...  
Connecting to bit.ly  
Sending long URL to bit.ly  
Receiving short URL from bit.ly  
Ending connect with bit.ly  
Parsing short URL  
Findreturn is          270  
receivedsize-findreturn is          20  
Your short URL is:  
  
http://bit.ly/bcEeM  
  
Press return to exit■
```

# BIT.LY: THE URL SHORTENER WITH AN API

- As URLs have gotten longer, there's been a need to shorten them.
- Several similar sites exist (tinyurl.com and snipurl.com for starters).
- Bit.ly shortens and has an A(application) P(rogrammer) I(nterface)

# WHAT'S AN API?

- Besides what it stands for (Application Programmer Interface)
- Wikipedia definition (July 6, 2009):
  - In computer science, an application programming interface (API) is an interface defining the ways by which an application program may request services from libraries and/or operating systems. An API determines the vocabulary and calling conventions the programmer should employ to use the services. It may include specifications for routines, data structures, object classes and protocols used to communicate between the requesting software and the library.

# IN NON-GEEK, PLEASE?

- An API tells a coder how to work with a service.
- For Web services, it documents what kind of data needs to be sent to a server in what format and what to expect in return.
- Bit.ly provided a super simple API (since deprecated, but Bitly CDA still works).

# FROM THE WEB

- If you were using the old Bit.ly API, to shorten a URL (say `http://athletic-diabetic.com/`), enter this in your Web browser:
  - `http://bit.ly/api?url=http://athletic-diabetic.com/`
- Bit.ly returns:
  - `http://bit.ly/1D4ZCc`

# FROM THE WEB, PART 2.0

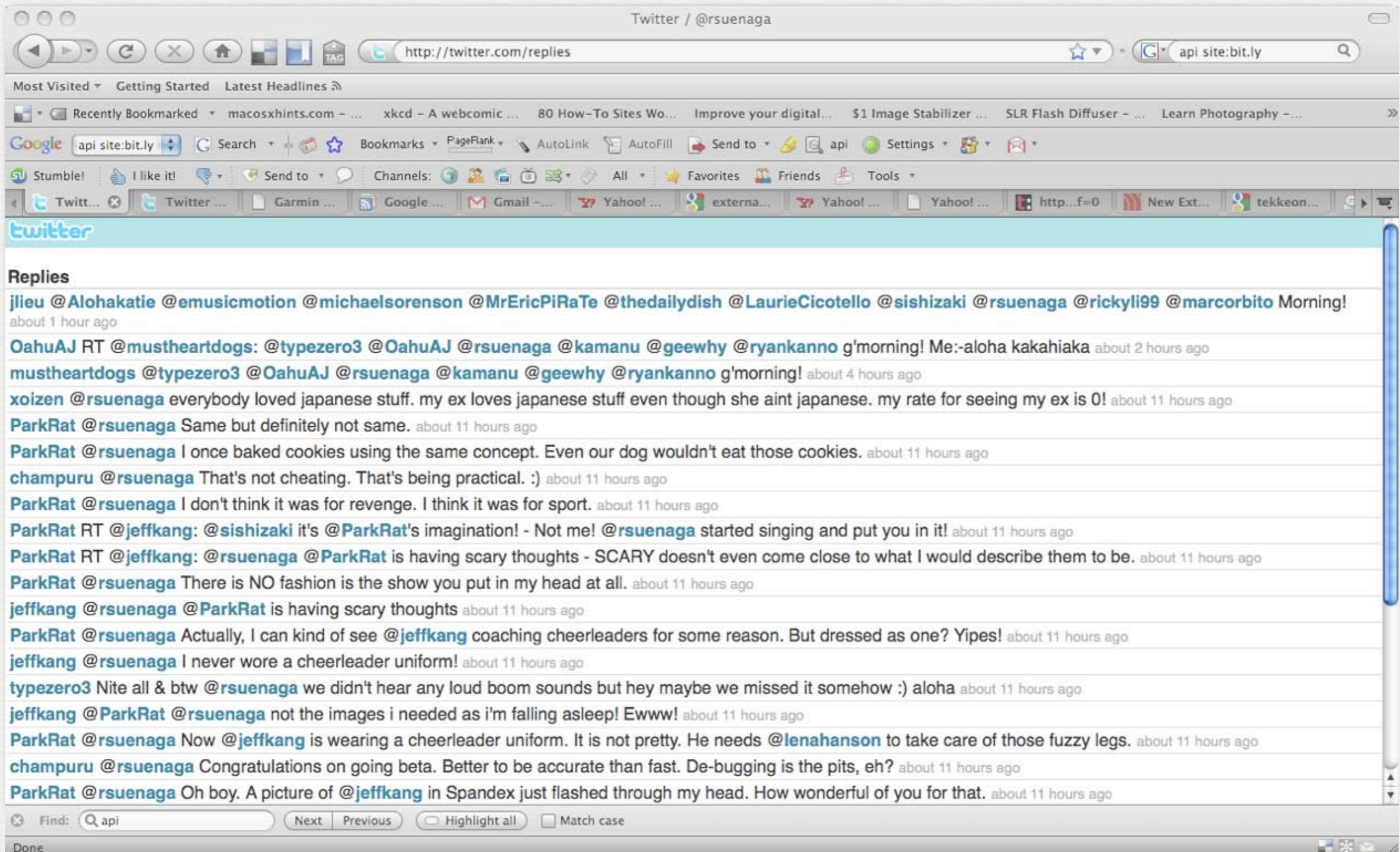
- If you want to go in reverse (lengthen a Bit.ly shortened URL):
  - `http://bit.ly/resolve?url=http://bit.ly/1D4ZCc`
- Bit.ly will return the original URL of:
  - `http://athletic-diabetic.com/`

# ANOTHER API EXAMPLE

- Twitter is another Web site with an API.
- Itter, which is finally being released today, is based on the Twitter API.
- Interestingly, Twitter has a “mobile” Web site and a “standard” Web site.
- In most cases, “mobile” Web sites are more appropriate for the Apple IIGs.



# MORE MEAT, LESS FLUFF



The image shows a screenshot of a web browser window displaying a Twitter page. The browser's address bar shows the URL `http://twitter.com/replies`. The page title is "Twitter / @rsuenaga". The browser's toolbar includes navigation buttons (back, forward, refresh, home, stop, print, TAG) and a search bar containing "api site:bit.ly". Below the browser window, the Twitter interface is visible, showing a list of replies to a tweet. The replies are from various users, including @jlieu, @OahuAJ, @mustheartdogs, @xoizen, @ParkRat, @champururu, @jeffkang, @typezero3, and @champururu. The replies are dated from "about 1 hour ago" to "about 11 hours ago". The browser's search bar at the bottom contains the text "Find: api" and has buttons for "Next", "Previous", "Highlight all", and "Match case". The status bar at the bottom left says "Done".

Twitter / @rsuenaga

http://twitter.com/replies

Most Visited ▾ Getting Started Latest Headlines ↗

Recently Bookmarked ▾ macosxhints.com - ... xkcd - A webcomic ... 80 How-To Sites Wo... Improve your digital... \$1 Image Stabilizer ... SLR Flash Diffuser - ... Learn Photography -...

Google api site:bit.ly Search ▾ Bookmarks ▾ PageRank ▾ AutoLink AutoFill Send to ▾ api Settings ▾

Stumble! I like it! Send to ▾ Channels: All ▾ Favorites Friends Tools ▾

Twitter Twitter Garmin ... Google ... Gmail -... Yahoo! ... externa... Yahoo! ... Yahoo! ... http...f=0 New Ext... tekkeon...

twitter

### Replies

[jlieu](#) [@Alohakatie](#) [@emusicmotion](#) [@michaelsorenson](#) [@MrEricPiRaTe](#) [@thedailydish](#) [@LaurieCicotello](#) [@sishizaki](#) [@rsuenaga](#) [@rickyli99](#) [@marcorbito](#) Morning!  
about 1 hour ago

[OahuAJ](#) RT [@mustheartdogs](#): [@typezero3](#) [@OahuAJ](#) [@rsuenaga](#) [@kamanu](#) [@geewhy](#) [@ryankanno](#) g'morning! Me:-aloha kakahiaka about 2 hours ago

[mustheartdogs](#) [@typezero3](#) [@OahuAJ](#) [@rsuenaga](#) [@kamanu](#) [@geewhy](#) [@ryankanno](#) g'morning! about 4 hours ago

[xoizen](#) [@rsuenaga](#) everybody loved japanese stuff. my ex loves japanese stuff even though she aint japanese. my rate for seeing my ex is 0! about 11 hours ago

[ParkRat](#) [@rsuenaga](#) Same but definitely not same. about 11 hours ago

[ParkRat](#) [@rsuenaga](#) I once baked cookies using the same concept. Even our dog wouldn't eat those cookies. about 11 hours ago

[champururu](#) [@rsuenaga](#) That's not cheating. That's being practical. :) about 11 hours ago

[ParkRat](#) [@rsuenaga](#) I don't think it was for revenge. I think it was for sport. about 11 hours ago

[ParkRat](#) RT [@jeffkang](#): [@sishizaki](#) it's [@ParkRat](#)'s imagination! - Not me! [@rsuenaga](#) started singing and put you in it! about 11 hours ago

[ParkRat](#) RT [@jeffkang](#): [@rsuenaga](#) [@ParkRat](#) is having scary thoughts - SCARY doesn't even come close to what I would describe them to be. about 11 hours ago

[ParkRat](#) [@rsuenaga](#) There is NO fashion is the show you put in my head at all. about 11 hours ago

[jeffkang](#) [@rsuenaga](#) [@ParkRat](#) is having scary thoughts about 11 hours ago

[ParkRat](#) [@rsuenaga](#) Actually, I can kind of see [@jeffkang](#) coaching cheerleaders for some reason. But dressed as one? Yipes! about 11 hours ago

[jeffkang](#) [@rsuenaga](#) I never wore a cheerleader uniform! about 11 hours ago

[typezero3](#) Nite all & btw [@rsuenaga](#) we didn't hear any loud boom sounds but hey maybe we missed it somehow :) aloha about 11 hours ago

[jeffkang](#) [@ParkRat](#) [@rsuenaga](#) not the images i needed as i'm falling asleep! Ewww! about 11 hours ago

[ParkRat](#) [@rsuenaga](#) Now [@jeffkang](#) is wearing a cheerleader uniform. It is not pretty. He needs [@lenahanson](#) to take care of those fuzzy legs. about 11 hours ago

[champururu](#) [@rsuenaga](#) Congratulations on going beta. Better to be accurate than fast. De-bugging is the pits, eh? about 11 hours ago

[ParkRat](#) [@rsuenaga](#) Oh boy. A picture of [@jeffkang](#) in Spandex just flashed through my head. How wonderful of you for that. about 11 hours ago

Find: api Next Previous Highlight all Match case

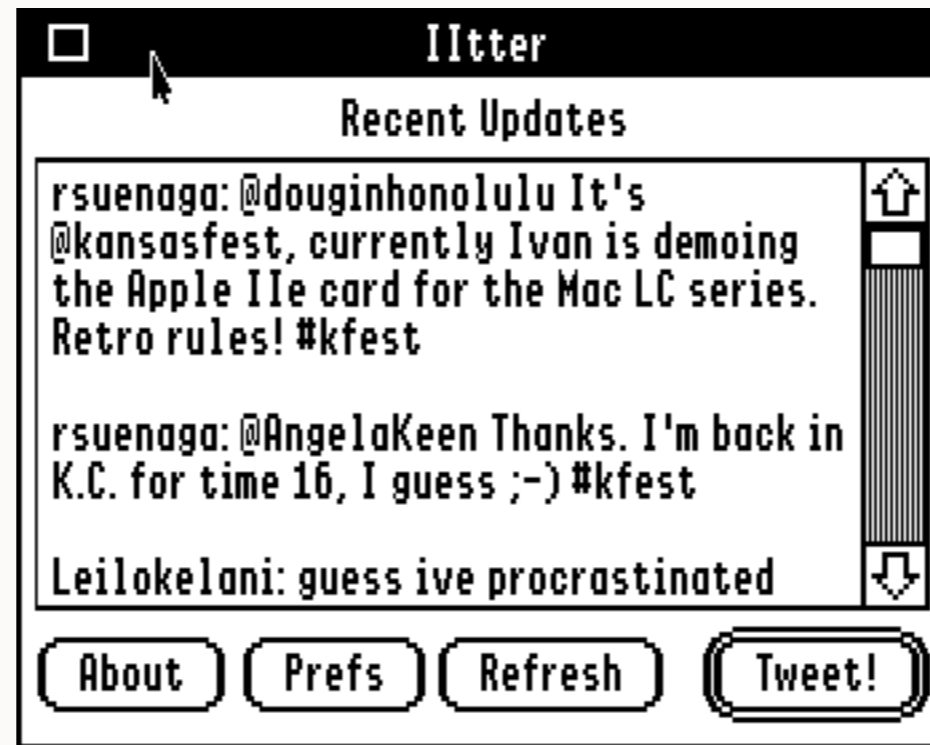
Done

# FLUFF, NICE BUT TOUGH TO DEAL WITH

The image shows a screenshot of a web browser displaying the Twitter profile of user @rsuenaga. The browser's address bar shows the URL <http://twitter.com/#replies>. The page features the Twitter logo and navigation links: Home, Profile, Find People, Settings, Help, and Sign out. The main content area is titled "What are you doing?" and shows a text input field with 140 characters remaining. Below the input field, the latest tweet is displayed: "@jlieu: Hi Jenn. That picture on Facebook is so great I think that when you get married it needs to be in the ... about 1 hour ago". An "update" button is visible next to the input field. The "Updates mentioning @rsuenaga" section lists several tweets, including one from @jlieu mentioning @Alohakatie, @emusicmotion, @michaelsorenson, @MrEricPiRaTe, @thedailydish, @LaurieCicotello, @sishizaki, @rsuenaga, @rickyli99, and @marcorbito. Another tweet is from @OahuAJ RTing @mustheartdogs, mentioning @typezero3, @OahuAJ, @rsuenaga, @kamanu, @geewhy, and @ryankanno. A third tweet is from @mustheartdogs mentioning @typezero3, @OahuAJ, @rsuenaga, @kamanu, @geewhy, and @ryankanno. The bottom tweet is from @xoizen mentioning @rsuenaga, stating "everybody loved japanese stuff. my ex loves japanese stuff even though she aint japanese. my rate". The right sidebar shows the user's profile information: @rsuenaga, 317 following, 1,026 followers, and 27,317 updates. It also includes a "Trazz-ler Buzz" section, a search bar, and a list of trending topics: #musicmonday, Michael Jackson, MJ's, iTwitter, and #iranelection. The browser's search bar at the bottom contains the text "Find: api" and includes buttons for "Next", "Previous", "Highlight all", and "Match case".

# IITTER

- Closer to the mobile site than the full version



# A VERY SIMPLE API

- Let's say, "I want to get a stock quote."
- I use `http://finance.yahoo.com/` to get a quote for Apple, Inc. (AAPL)
- Wow, that's pretty cool...
- There's also an API that will return a plain old fashioned CSV file of stock values.

# AS SIMPLE AS IT GETS

- `http://finance.yahoo.com/d/quotes.csv?s=` followed by stock ticker symbol(s) separated by + then `&f=` followed by special tag(s)
- For example:
  - `http://finance.yahoo.com/d/quotes.csv?s=AAPL&f=11`
- Returns a CSV (comma separated values) result of:
  - 157.86

# STOCK QUOTE BY YAHOO! CDA

- Classic Desk Accessory to get a single stock quote using Yahoo!'s Web service
- Public domain, including source code
- Nothing special to look at, but...
- ...includes source to show how to check if Marinetti is installed, if a link is up, resolve a domain name, open a connection, send data, receive data, and close a port.
- Meaning I never want to hear from an aspiring coder again that they don't know how to do these things with Marinetti.

# STOCK QUOTE CDA 1.0

```
Stock Quote CDA 1.0 using Yahoo! Finance

Contains libraries from ORCA Pascal,
Copyright 1991-2009, Byte Works Inc.
Released at KansasFest 2009
Originally written by Ryan M. Suenaga, M.S.W., L.C.S.W.
Public domain, do with it what you want!

Enter stock ticker for a quote: aapl
Resolving download.finance.yahoo.com...
Connecting to download.finance.yahoo.com
Sending data to download.finance.yahoo.com
Receiving quote from download.finance.yahoo.com
Ending connect with download.finance.yahoo.com
Parsing the quote
Your stock quote is: 157.86

Press return to exit■
```

# MORE WEB APIS

- A quick Google search will find lots of different Web APIs.
- Here's some quick ideas:
  - Weather, horoscope, IP data, Brightkite and other location services, thesaurus, dictionary... and more.
- Look at <http://www.trynt.com/apis> or <http://www.programmableweb.com/apis/directory>



# SOME MORE THINGS

- A2Unplugged awards the geocaching prize to Tony Diaz
- A2Unplugged comes off hiatus effective Saturday
- A2Unplugged sponsors Krispy KremeFest tonight!
- Blatant plugs:
  - [Uncommon-Cents.net](http://Uncommon-Cents.net)
  - [Athletic-Diabetic.com](http://Athletic-Diabetic.com)
  - [A2Unplugged.com](http://A2Unplugged.com)
  - [RyansAppleSoftware.com](http://RyansAppleSoftware.com)

# ONE LAST THING

- A long time ago, at a college not far away...
- ...not only was there a TCP/IP stack named Marinetti, there was a user FAQ that went with it...
- ...and then disappeared.
- Today, the Marinetti 3.0 FAQ for users is officially being announced as back.
- Soon at fine Apple II Web sites everywhere.