Random Hacks

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Hacking

- “Hacking is my life”
  - Hacking Perl (CPAN)
  - Hacking Applications
  - Hacking Services
- To Make my life a bit happier

[O'Reilly's Hacks Series reclaims] the term "hacking" for the good guys--innovators who explore and experiment, unearth shortcuts, create useful tools, and come up with fun things to try on their own.
Agenda

- Web 2.0 Hacking
  - Blogging APIs
  - Data visualization
  - Folksonomies stuff
- iTunes Hacking

  ... quite random
  Because I wrote this last night, 3am
What is Web 2.0?

- Web 2.0 is Read-Write Web
  - With RSS/Atom feeds
  - With Simple (REST) APIs
    - Weblogging
    - Social Networking
    - Photo Sharing
    - Social Bookmark
    - Folksonomies
Weblogging APIs

- Blogger API
  - Pyra Labs (Google)

- MetaWeblogAPI
  - Dave Winer (Radio Userland)
  - RSS 2.0

- MT API
  - Movable Type (Six Apart)
Weblogging APIs

- Based on XML-RPC
  - XML over HTTP

POST /RPC2 HTTP/1.0
Host: betty.userland.com
Content-Type: text/xml
Content-length: 181

<?xml version="1.0"?>
<methodCall>
  <methodName>examples.getStateName</methodName>
  <params>
    <param>
      <value><i4>41</i4></value>
    </param>
  </params>
</methodCall>

HTTP/1.0 200 OK
Content-Type: text/xml
Content-length: 158

<?xml version="1.0"?>
<methodResponse>
  <params>
    <param>
      <value>
        <string>South Dakota</string>
      </value>
    </param>
  </params>
</methodResponse>
Demo

- Post IM chat logs to Blog
  - msn_to_blog.pl
    - MSN Messenger
    - Chat Log file is in XML (Optional Setting)
    - XML::LibXML to parse it
    - XMLRPC::Lite to post via MetaWeblog API
Modern Weblogging APIs

- AtomAPI (AtomPP)
  - RESTful APIs for Content Syndication
  - Part of Atom WG at IETF
- Solves issues with XML-RPCs
  - Damn simple
    - Sometimes ad-hoc
  - Clear Password
  - etc, etc.
AtomAPI

- Still not in version 1.0
  - 0.3 draft last week
- Nokia Lifeblog uses it
  - Integrated with TypePad
    - Experimental Six Apart namespace
  - Standalone resource posting
    - Similar to metaWeblog.newMediaObject
Demo

- **Flickr2TypePadMMT**
  - Uses Nokia LifeBlog API + Flickr API
    - XML::Atom::Client
    - XML::Simple
  - **MMT = MultiMedia Template**
    - New TypePad feature
    - Integrated with Photo Album
  - [http://blog.bulknews.net/flickr2typepad.cgi](http://blog.bulknews.net/flickr2typepad.cgi)
AdSense and Amazon

- Make money with your Weblog
  - Google AdSense is really nice
    - Display Ads based on your weblog context
  - But sometimes no Ads available
  - I want to put Amazon ads in such cases
  - Hack it!
Demo

- AdSense Alt Ads with AWS
  - Use `<$MTKeywords$>` with MT Template
  - JavaScript to hack AdSense code
  - Hand-made AdSense immitator script
    - To search Amazon Web Services
More Blogging Hacks

- The book
  - Blog Hacks
  - ISBN 4873111749
  - Only available in Japanese
  - English version now in plan
RESTish APIs in Web 2.0

- Yahoo! Search API
  - Damn simple XML over HTTP
    - XML::Simple + LWP::Simple
  - No SOAP support
    - Because SOAP raises many interoperability issues (evil laugh)
    - No WS-* glitches
Demo

- Yahoo! And Flickr aggregator
  - Search images in Y! and Flickr
  - Authority vs. folksonomy
  - [http://blog.bulknews.net/imgsearch.cgi](http://blog.bulknews.net/imgsearch.cgi)
iTunes Hacking

- The best music player
  - Rocks with Rendezvous sharing
  - Rocks with AirPort Express
- SDK available
  - AppleScript for Mac
  - WSH (COM) for Win32
Rendezvous

- Multicast DNS
  - Music files can be shared on iTunes
  - Using DAAP protocol
    - Digital Audio Access Protocol
    - Similar to DPAP (iPhoto)
      - Leon made Net::DPAP::Server
  - Perl binding: Net::DAAP::*
Demo

- Browse iTunes share from browser
  - Net::Rendezvous to find shared music
  - Net::DAAP::Client to search the library
    - You can even download the songs
    - But you shouldn’t
AirPort Express

- AirTunes
  - Remote speaker over ethernet / Wi-Fi
  - RAOP over RTSP
    - RAOP: Remote Audio Output Protocol
    - RTSP: Real Time Streaming Protocol
  - DVDJOn cracked the protocol
    - JustePort (C#)
    - Working on a perl port - Net::AirTunes
iTunes SDK

- **Script your iTunes**
  - With AppleScript or COM (OLE)
  - I’m a Windows guy, so use Win32::OLE
    - But the essence is the same with Mac

```perl
use Win32::OLE;
my $itunes = Win32::OLE->new("iTunes.Application");
print $itunes->currenTrack->title;
```
Demo

- Control iTunes from browsers
  - Standalone HTTPD
    - To avoid Apache Win32 security issue
    - With HTTP::Daemon
      - I know I should try HTTP::Server::Simple, obra
  - Win32::OLE to control iTunes
Demo 2

- RSS feed to audiobook
  - Microsoft SAPI5
    - Text-to-Speech engine (WAV)
  - iTunes API
    - Encode the music into AAC
  - XML::RSS + Win32::SAPI5 + Win32::OLE
    - Microsoft and Apple collaboration
Summary

- Blogging, Web 2.0 and iTunes
  - APIs available to hackers
- Hacking is easy
  - Since they have damn simple APIs
  - via XML over HTTP or COM
- Hacking is fun
  - Just have fun