Putting it all together:
The untold rules of the road

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Why should I pay attention?

- Committer to Apache HTTP Server, APR, Subversion (now incubating!), and Serf
- President, The Apache Software Foundation
- Ph.D. from Univ. of California, Irvine
  - Computational REST (next-gen web arch.)
  - http://www.erenkrantz.com/CREST/
Sphere of community

How do you ‘jump’ between ‘spheres’?
Before we begin, here’s my story...

- Most of us - except for Roy (more on him in a bit) - started out as n00bs. Really...

http://www.flickr.com/photos/x180/2704965763/  
(James Duncan Davidson)

http://www.flickr.com/photos/bluxte/2103773754/  
(Sylvain Wallez)
Before open-source...

- Had various paying programming jobs (WinNT sysadmin, CORBA, EJBs, & VB!)
- Joined eBuilt (now dead!) in 2000 while doing my undergrad at UC Irvine
- After six months or so on my initial project, I got tasked to a new project and asked to write an Apache module. Huh?
...open sores?

- December 2000: 1st time writing open source
- Spent two or three weeks working on custom Apache module; got it barely working...
- Roy Fielding (also at eBuilt) rewrote it as a protocol handler in a few hours. A quarter of the size and far more elegant.
- Uh-oh...who is this guy?
Roy builds a posse...

- I’ve been blessed throughout my career with terrific mentors and colleagues.
- Roy wrangled me and Aaron Bannert to join httpd as part of our day jobs.
- Aaron and I were able to talk to each other and ask Roy all of our stupid questions. This support was crucial.
My first words...

- February 6, 2001: First post (and patch!)
- Subject: mod_example patch for Apache 2.0
- Start small: playing around with httpd and example module didn’t compile.
- I attempted to fix it...and I posted a patch...
- (FWIW, it never got committed...)

http://mail-archives.apache.org/mod_mbox/httpd-dev/200102.mbox/%3c20010205173935.A16359@ebuilt.com%3e
Chiming in...

- February 13, 2001: First public reply
- Subject: Working platforms - HP-UX 11.00
- Jeff & Bill asked: “Do we have any HP-UX sysadmins in the audience?”
- Say what you know: I admin’d an HP-UX box at UC Irvine...so I (foolishly) weighed in.

http://mail-archives.apache.org/mod_mbox/apr-dev/200102.mbox/%3c20010213093636.C20330@ebuilt.com%3e
Know who you talk to!

- Gave feedback re: HP-UX
- In my reply, I also said:
  - “If desired, I can also dig up some time on an IBM AIX 4.3 box to test...Not sure if anyone has confirmed AIX yet.”
- What I didn’t know (then) is that Jeff and Bill worked for...IBM. (Doh.)
Be nice to n00bs.

- Jeff replied (kindly!) and inserted a subtle hint that he worked at IBM. (Doh!)
- My reply led to a good discussion between Jeff, Greg, Tony, and Cliff.
- Treat folks kindly: In retrospect, even though I wasn’t directly adding value to the thread, no one made me feel marginalized.
Translating to other projects...

- Roy told me about Subversion. They used APR. But, that was it...
- Sander forwarded a dev@apr post I did to Subversion’s list in September 2001
- Didn’t subscribe until December 2001, posted some patches, by end of month, I had commit access! Wow, this is getting easy!

http://svn.haxx.se/dev/archive-2001-09/0670.shtml
Impact on non-OSS life

○ Roy: Suggested meeting his thesis advisor at UC Irvine; entered Ph.D. program (just finished after seven years!)

○ Greg: Interned at Google to work on Serf

○ Sander, Garrett, Paul: Worked with at Joost

○ Short-hand of working together via Apache
What Apache means to me...

- I’ve had the good fortune to work with some of the best programmers in the world on software used by millions. More importantly, they are even better friends.

- Proud to see our community grow...

- I hope that this talk helps reduces the ‘barrier’ of entry to our community.
Geographic Diversity

Challenges and advantages arise from this!

http://people.apache.org/map.html
Organization of ASF

- Each Apache project is independent
- Grouped as ‘top-level’ PMCs (TLP)
  - Board: Social - not technical - guidance
- Some TLPs have ‘sub-projects’; discouraged
- Karma in one PMC doesn’t grant rights in another PMC - earn karma independently!
Project Diversity in Apache

- Seventy top-level projects (TLPs)
  - Java, C, C++, Perl, etc. projects...
- It’s okay for projects to be in “same” space
- Over thirty projects currently in “pipeline”

*Apache aims to provides a pragmatic non-technical framework to its projects*
Apache’s Mission

○ Let developers focus on what they do best: code. Foundation exists to do rest.

○ “The Apache Way”
  ○ Open development vs. open source
  ○ All technical decisions about a project are made in public (mailing lists)
Contributions

- Apache wants voluntary contributions
- Not copyleft!
- Many forms of contributions
  - evangelism, bug reports, testing, documentation, code, design feedback
- Contributing is easier than you think!
Where decisions happen

- Can’t kibitz in the morning over coffee
- First time meet face-to-face is at events
- Mailing lists are the pulse of the project
  - IRC, AIM, Jabber, etc. not for decisions
- Roy’s mantra: “If it doesn't happen on-list, it didn’t happen.”
Finding that list!

- Should be listed on every project’s site
- dev@ - dev-to-dev discussions (primary list)
- commits@ - automated source changes
- users@ - user-to-user help (optional)
- private@ - discussion of people (committers)
- http://mail-archives.apache.org/mod_mbox/
Find a bug? File an issue!

- Be descriptive: provide reproduction recipe (step-by-step instructions of what you did!); provide version info (latest version?), etc.
  - How to report bugs effectively:
    http://www.chiark.greenend.org.uk/~sgtatham/bugs.html
  - http://issues.apache.org/
    - Either Bugzilla or JIRA are used
Fetching that latest version

- Subversion is the version control system
- http://svn.apache.org/repos/asf/
  - (DNS load-balanced with US & European server)
  - ViewVC Browser: http://svn.apache.org/viewvc/
- We are experimenting with git-svn
  - http://wiki.apache.org/general/GitAtApache
Quick guide to Subversion

% svn co http://svn.apache.org/repos/asf/apr/apr/trunk/ apr
% ...make changes...
% svn diff
% ...file patch in issue tracker, email that patch to list, etc...

Creating patches for review

- Send to right developer mailing list
- Unified diff (*svn diff* outputs this by default)
- Subject: [PATCH] <one-line description>
- Include log message: describe “why”
- Comments in code: describe “how”
Scoping contributions

- Do not do “powerplant” contributions
  - Break patches up into small chunks
  - Large changes are hard to review
- Before starting large changes, email plan to developer list - explain how and why
- Try to get feedback early and often
Expectations around feedback

- You may have the greatest and most obvious change in the world, but you get dead silence

- Not your fault - may be a busy time or ‘right’ person may be on vacation

- If you don’t get a reply in a week, do try again. Keep trying, but don’t be rude.
Voting

- Vote on releases, code, and ideas...
- +1? -1? +0? -0?
- “Binding” vote given to committers
  - Everyone should feel free to vote
- Cast your vote on-list
- ...what about vetos?
The dreaded -1 (veto)

- Power given to all committers to absolutely stop an action
- Code can be vetoed - releases can not
- Some projects have an ‘override’
- Vetos should only be cast as a measure of last resort; use judiciously!!
Rule of 3 and 72

- 3 voters is minimum acceptable quorum
  - Ensures diversity and true community
- 72 hours minimum time frame for votes
  - Accommodate long weekends too
- Generally err on side of caution
Apache commit policies

- **RTC - Review than Commit**
  - 3 +1s (more + than -); no vetos

- **CTR - Commit than Review**
  - Lazy consensus - assumed okay

- **Different policies per PMC or codebases**
  - Stable: RTC, Trunk: CTR
No Jerks Allowed!

“How Open Source Projects Survive Poisonous People (And You Can Too)” by Ben Collins-Sussman and Brian Fitzpatrick

http://video.google.com/videoplay?docid=-4216011961522818645

- Most people are nice; there are dingbats, or may just be someone having a bad day
- Trolls exist...don’t feed them.
- Don’t become a poisonous person.
Legal framework

- ASF philosophy is that code can be used commercially without restrictions
  - Just don’t call it Apache Foo!
- Apache License, version 2.0
  - Grants copyright and patent licenses
- Many non-ASF projects use ALv2 now
Incorporating third-party code

○ ALv2 is GPLv3-compatible - can be used by GPL projects but no GPL within ASF

○ http://www.apache.org/legal/3party.html


○ List of licenses permitted / disallowed

○ Questions to legal-discuss@apache.org
What am I signing?

- Contributor License Agreement (CLA)
  - Gives ASF ‘license’ - not ownership
  - Required before getting SVN account
  - Fax or email to secretary@apache.org

- Corporate CLA form - when needed?
Starting new Apache projects

- **Incubator** - “podlings” can be nominated and eventually “graduate” to be a PMC
  - Needs foundation member to **mentor**
  - Usually legal and/or community issues
- **Labs** - once you are a committer, you can have a sandbox (shared mailing list, no non-committers, no releases)
Beyond a committer...

- Once you are committer, you can then become a PMC member, foundation member, Director...even President!
- You can nominate other foundation (or PMC) members; can serve as mentor for Incubating projects; vote for Board.
- Maybe you too can then give this talk!
Thanks! Questions?

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Other Recommended Resources

- **Producing OSS**  
  by Karl Fogel - http://producingoss.com/

- **Getting Started in Open Source: An Overview for Newbies**  
  by Leslie Hawthorn and Cat Allman (at SCaLE 7x and OSCON 2009)

  - http://scale7x.socallinuxexpo.org/sites/scale7x.socallinuxexpo.org/files/SCALE_Final_allman_lhawthorn.pdf