

Working with, and in, the Open Source Community

*Some Stuff You Need to Know,
or at Least Be Aware Of*

Michael P. Gerlek
Flaxen Geo Consulting
mpg@flaxen.com

15 June 2011

“Hi! Welcome to my keynote.”

This talk is all about

Some Stuff You Need to Know

to live and work in the open source world

as a *developer* or as a *user*

of *tools*, *libraries*, or *applications*

mpg?

- Background
 - grad school, supercomputing, compiler jock
 - geo biz: LizardTech for +10 years
 - now an independent consultant

- Doing open source for ~20(!) years
 - user, developer, sponsor, advocate
 - charter member of OSGeo

Disclaimers

- All these opinions are mine.
 - Your opinions may differ.
 - And that's (probably) okay.
- Some of you already know this stuff.
 - And that's okay too.
 - Probably.
 - Let's just assume there's someone out there who doesn't.
 - *Humor me.*

Three Easy Steps (plus or minus two)

0. Open Source is a Good Thing

1. How to find the project you need

2. How to get help

3. How to get involved

4. So what's the Big Deal?

Open Source is a Good Thing

We'll just take this for granted.

- lots of talks, books, videos out there
- Keywords:
 - Unix, BSD
 - gcc, emacs, FSF, RMS, copyleft
 - Linux, Firefox, Apache
 - GRASS, MapServer, GDAL
 - Creative Commons, Wikipedia, OpenStreetMap

Freedom?

“Free as in speech.”

“Free as in beer.”

Does “free” imply “good”?

There are dangers for the unwary.

FREE

Puppies



Our dog Chikondi (Love) just had puppies! We can't keep them all so stop on by for some tea and take home a puppy!

The Willsons
011.265.8.303.048

The Willsons
011.265.8.303.048

The Willsons
011.265.8.303.048

The Willsons
011.265.8.303.048

The Willsons
011.265.8.303.048

The Willsons
011.265.8.303.048

The Willsons
011.265.8.303.048

The Willsons
011.265.8.303.048

The Willsons
011.265.8.303.048

The Willsons
011.265.8.303.048

Ouch.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS **AS IS** EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT **NOT LIMITED TO** THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE **DISCLAIMED**.

IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES

- (INCLUDING, BUT **NOT LIMITED TO**, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)

HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY OR TORT

- (**INCLUDING NEGLIGENCE** OR OTHERWISE)

ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, **EVEN IF** ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

0. Open Source is a Good Thing

1. How to find the project you need

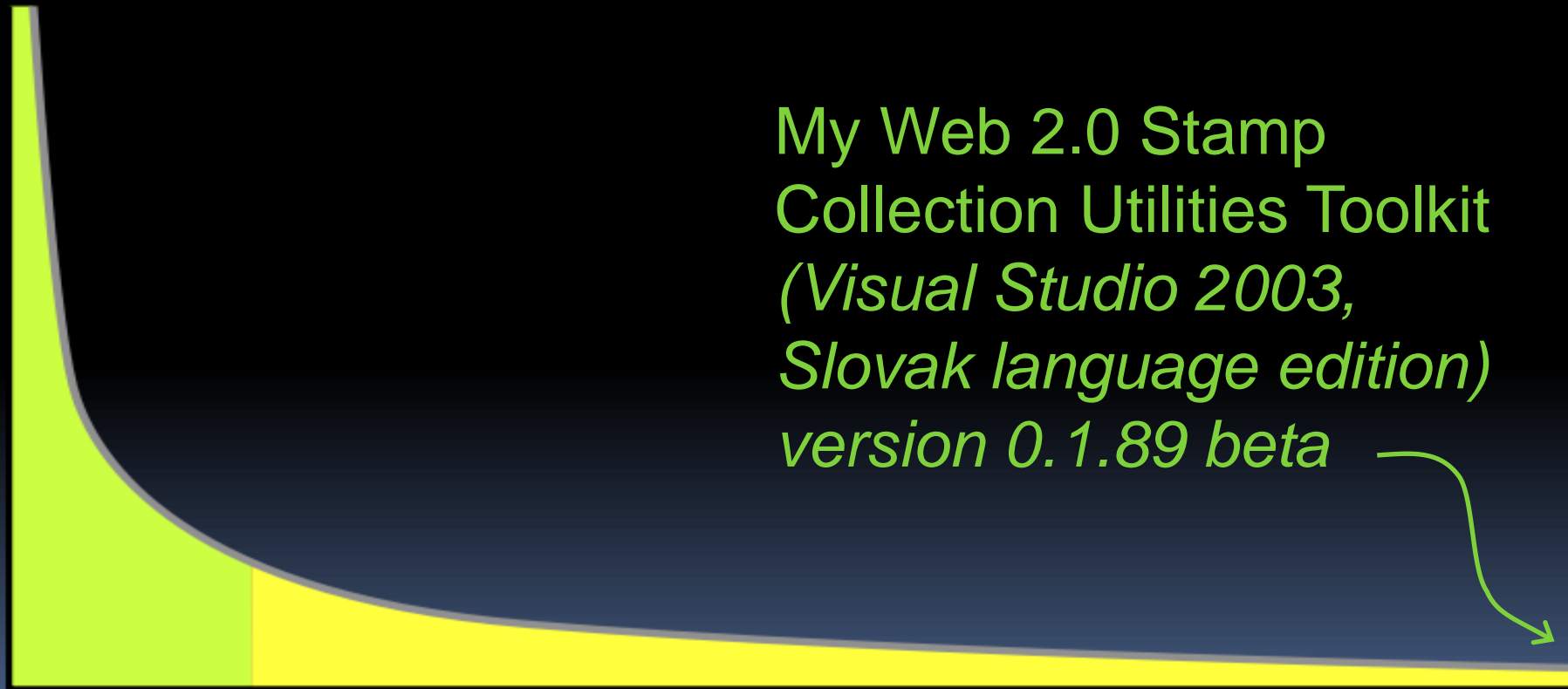
2. How to get help

3. How to get involved

4. So what's the Big Deal?

The Long Tail of Source Forge

Linux



“Does it work on Windows 7?”

“Sure, no problem.”

“Oh, wait – Windows? Okay, yeah, no problem, someone posted a patch for that on the mailing list a while back...”

“No, sorry, hang on, that was for an earlier release, I think...”

“Well, I bet you could get it to build yourself without too much work...”

Finding the project you need

You've googled around with some keywords and you've found some candidates...

But:

How do you know if the package is stable and supported enough to rely on?

Pasting some source code into a blog post does not a successful open source project make.

Some Good Indicators

- Hosting site
 - github, Google Code, CodePlex, Source Forge
 - bug tracking? source control? licensing?

- Active development
 - When was the last commit?
 - How many different people are committing?

- Community
 - Is there a mailing list, website, forum?
 - When was the last post?
 - Are the developers on there answering questions?

- Licensing
 - Is the licensing explicit?
 - Is it an OSI license?

Licensing 101

Copyright – for “expressions”

- music, paintings, text
- grants exclusive right to display, perform, copy, change
- *contrast to Patents (for “ideas”) or Trademarks (for “branding”)*

“Software” can be expressed as text

- and is therefore subject to copyright law

Thus, the owner of the source code has

- “...the exclusive right to display, perform, ...”
- and, of course, *the right to give these rights to others*

The Clever Bit

What if you were to...

- *explicitly license your source code to anyone who wants it, in such a way that they have the right to “do whatever they want” with it*
- turns the notion of copyright on it's head!
 - thus, “copyleft”

Open source software is not “given away”

- rather, it is controlled via a license agreement under established copyright law

License Shopping

Academic or “Attribution” Licenses


- *goal: a commons of code for all to use for any purpose*
- you can “do anything” with the code
- MIT, BSD

Reciprocal Licenses

- *goal: a commons of code for all to share and share-alike*
- derivatives must be under the same license
- GPL, LGPL

Licenses should be approved by OSI.

Are you a user or a developer?

- 
0. Open Source is a Good Thing
 1. How to find the project you need
 - 2. How to get help**
 3. How to get involved
 4. So what's the Big Deal?

How to ask for help *(and get a useful response)*

NO: *“It doesn’t work.”*

YES: *“When I do **this**, the app does **that**.”*

- Provide good details
 - version of the software
 - details on your OS and related tools
 - steps on how to reproduce
 - what ideas have you already tried?

- Proper expectations
 - We won’t write your code for you.
 - We don’t have your data sets.
 - We don’t have your hardware configuration.
 - We won’t add your custom features for free.

Questions Are Not Bugs

(nor are unsolicited feature requests)

- Usually, what you have is a Question – not a Bug
 - do your homework first
 - search the mailing lists, consult the Google, ask on #irc
 - use appropriate forums
 - sometimes separate mailing lists for bugs and questions

- Follow up
 - questions may turn into bug reports
 - summarize to the list what the resolution was
 - *The next person will thank you.*

Fear Not!

Working in a new area can be intimidating.

- Yes, you might look a little stoopid.
 - *So what?*
 - *We've all been there.*

Just remember to say please and thank you, be polite, and be humble.

Attitude towards newcomers is another key indicator of project maturity and success.

...Oh, you want *Real Support*™?

Companies specializing open source GIS

- new development
- maintenance
- customization
- training



Refractions Research



WhereGroup



www.mapgears.com
Copyright 2011 Flaxen Geo (CC BY-SA 2.0)



0. Open Source is a Good Thing
1. How to find the project you need
2. How to get help
- 3. How to get involved**
4. So what's the Big Deal?

How can you get involved?

You might want to...

- help other users like yourself
- implement a new feature you need
- help pay for improvements
- make friends and influence people

Types of involvement:

- as a user
- as a developer
- as a sponsor
- OSGeo, local user groups

As a User

|Users| >> |Developers|

Docs always lag code

We're not all programmers.

- User guides, manuals, tip sheets
- Wikis, FAQs, mailing lists
- Bug scrubs
- Testing
- ..?

As a Developer

Three things to know:

- meritocracy
 - deeds, not words
 - reputation matters
- project goals and intents
 - who is the project really for?
 - what motivates the project leads?
- cultural norms
 - fork or chopsticks?
 - curly braces on the same line, or a new line?

Fork?

Almost never a good idea.

The nuclear option.

No one will thank you.

There's no going back.

As a Sponsor

- **Bounty**
 - money offered for a specific bug fix or feature

- **Discretionary/open funding**
 - money offered with no strings attached
 - “for the good of the project”

- **In-kind support**
 - development resources
 - hosting services
 - conferences

The Open Source Geospatial Foundation



- an organization of developers and users
- dedicated to furthering the goals of open source technology
- developing and supporting major libraries, client applications, and server technologies

The OSGeo Umbrella

- Servers
 - MapServer, MapGuide, ...
- Desktop apps
 - GRASS, qgis, ...
- Web mapping
 - Open Layers, deegree, ...
- Core libraries
 - GDAL, FDO, ...



OSGeo Activities

It's not just about writing code!

- educational curricula
- speakers at conferences
- booths at tradeshow, conferences
- liaisons with standards organizations
- promotion of free/open data
- local user groups

0. Open Source is a Good Thing

1. How to find the project you need

2. How to get help

3. How to get involved

4. So what's the Big Deal?

So what's the big deal?

Why are some people so passionate about this?

Can you have fun?

Or at least make a little money?

What possible economic justification is there for all these people doing all this work?!

Short answer

No clue.



Slightly longer answer

It depends.



Thank you.

Questions?

Have you hugged an open source developer today?