
OSGeo *and* the Open Source Movement

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Agenda

- The Open Source Geospatial Foundation
 - Introduction to OSGeo
 - Some recent achievements
- The Open Source Movement
 - Good for China?
 - How open source works
 - Open Source for you

*Please ask questions at any time.
I will try to speak slowly... (but, I get excited!)*

Introduction

Michael P. Gerlek (*Seattle, USA*)

- Engineering Manager, LizardTech
 - image management for GIS
 - MrSID and JPEG 2000
 - OGC standards development

 - Vice President, OSGeo
 - Charter Member of Foundation
 - Visibility and Promotion Committee (Marketing)
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“Open Source”?

When I say “Open Source”, I mean...

- ❑ Source code to software is freely available
 - to examine, modify, extend
- ❑ Open development model
 - many programmers
- ❑ Associated activities
 - access to data
 - network of users
 - explicit interoperability with other software
- ❑ The right to “fork”
 - anyone can copy the code and do something different

More about all this as we go along

Open Source Geospatial Foundation

(presentation from GeoWeb 2006)

Since February 2006...

- Eight robust, mature software projects
 - www.osgeo.org
 - 10,000 hits per day
 - 15,000 visitors per month
 - 150,000 hits on Google
 - 1,500 registered users
 - Where 2.0 conference (June)
 - 30 OSGeo attendees
 - many giving presentations, keynote speeches
 - booth more crowded than Google, Microsoft
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Since February 2006... *(continued)*

- Very active mailing lists, IRC channel
 - Education curriculum development
 - using all open source and open data
 - free GIS book?
 - Promoting open access to public geo data
 - especially in the European Union (EU)
 - new hosting service for many terabytes of data
 - FOSS4G conference (Switzerland)
 - hundreds of attendees
 - many exhibits, workshops, meetings, ...
 - next year to be run entirely by OSGeo
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The Open Source Movement

Just some of my opinions and thoughts...

Open Source – Good for China?

Yes! ...because:

- Low barrier to entry
 - software is free – no licensing, no contracts, ...
 - Very customizable
 - can be readily adapted to Chinese market
 - Faster adoption of technology
 - no need to build your own software solutions
 - *(telephone poles or cell phone towers?)*
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Also good for China because...

Opportunities for **Education** and **Innovation!**

Having source code means you get:

- ❑ practical, hands-on education
- ❑ opportunities for experimentation
- ❑ better than a textbook
- ❑ access to the very latest technologies, ideas, trends

Open Source also often means you have to fix bugs yourself...

...but what better way to learn?

How Open Source Works

“Open source” is about more than just the source code to software

- ❑ development model
- ❑ distribution model
- ❑ staffing, resources, decision-making
- ❑ ...

Compare this to the traditional model,
as used by corporations and government agencies

Development model (1)

Key Attributes

- ❑ completely distributed environment
 - ❑ programmers, users from around the globe
 - ❑ 24 hours/day, 365 days/year
 - ❑ redundancy
 - often more than one team solving a problem
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Development model (2)

Communication

- ❑ email, wiki, IRC (internet relay chat)
 - ❑ conferences, standards group meetings, etc.
 - ❑ but often will never meet “in real life”
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Development model (3)

Testing and QA

- ❑ Constant integration of changes
 - ❑ Reliance on build-and-test servers
 - automated, continuous
 - Instant notification of broken “mainline”
 - ❑ Complete reliance on source control systems
 - CVS, Subversion
 - ❑ Active users – feedback and bug reports encouraged
 - Often the developers are the best users
 - *(this influences the **type** of open source projects!)*
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Distribution model

- Release early and often
 - the “head” is always there
- Latest releases always available on the net
- Continual feedback from users...
 - ...leads to rapid responses/changes

an “Agile” development model

Staffing, Resources, Decision-making

Frequently asked questions:

- ❑ Who gets to participate?
- ❑ Whose changes get accepted?
- ❑ Who decides what new features?

All of the programmers are volunteers, and...

- ❑ can quit at any time (*and go build a competing product!*)
- ❑ can work any hours they want
- ❑ can work on any particular task they find interesting

This makes “management” very strange!

“Meritocracy”

- The “leaders” are those who are...
 - the most capable
 - the most experienced
- But, not always formally “appointed” or “voted”
 - the most important people are those that have done the best or most important work
 - others defer to the best judgment of the leaders

Remember: everyone has the right to fork!

Making Decisions

- Always try and reach consensus
 - if the leaders try to dictate unfairly, people will leave the project
 - “benevolent dictatorship”
 - all discussions are open and public
- “Working code” is better than any amount of argument
 - the person who solves the problem first often “wins”...
 - ...but others may modify your solution later!

Sometimes it seems like magic, but it can work well!

Open Source for You!

How can you get involved?

- ❑ Find a project that is interesting to you
 - ❑ Read the code! Read the documentation!
 - ❑ Look around and see what pieces other people are working on
 - do they need help?
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Getting involved

You will need to “prove” yourself to the others

- to show that you are capable and willing

 - Finding bugs
 - a good way to learn the software
 - make sure you report your bugs well
 - projects often have requirements for this
 - “bad” bug reports are often worse than no reports at all!

 - Fixing bugs
 - a great way to learn the source code
 - very appreciated by other developers
 - you will get noticed by others
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Getting involved (2)

Ask questions!

- ❑ Bad:
 - open-ended, vague, already answered, ...
 - ❑ Good:
 - suggest ideas, show you've tried / done homework
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The Language Barrier

This is a real problem!

- ❑ especially hard for Chinese
- ❑ *unfortunately, it is one you must overcome*

- ❑ English is the default language for almost all major projects
- ❑ If your question is not understood, it will be ignored
- ❑ Have a friend, classmate, or professor help you with mails you send out

*But always remember:
no one will ever criticize you for trying!*

Conclusion

- OSGeo
 - Promoting open source for GIS
 - Open Source development
 - distributed, rapid, and open to all
 - Open Source for you
 - Learn! – Ask! – Do!
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Thank you.
