

Between a Rock and a Hard Place

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Pt 2

Challenges:

Proprietary Integration

Open Source Integration

Open Source Application

To continue on From Chris...

Technically, we have three challenges presently at timberline:
These challenges describe in part the direction we've taken in using open source technology
and in part the direction we are going to take from here.

Proprietary integration

open source integration

open source application

That's great, but what does it mean... well

ROCK



HARD
PLACE

Proprietary Integration

geoprocessing
workflow management
cataloging (metadata)
data generation

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using open source tools in harmony with a proprietary environment

So... how do we make a map?

What are our deliverables?

Still we find that the only choice for a cartographic engine is arc.

I guess that's not absolutely true, but its what we have so we'll use it

what if we were given an e00 to use? or a geodatabase

or an mxd? or a shapefile? on and on...

Standard geoprocessing tasks.

For much of this we will use the excellent fwtools and for more repeatable / complex tasks
ogr & gdal



Open Source Integration

web environments
grass with a postgres backend
postgres with R

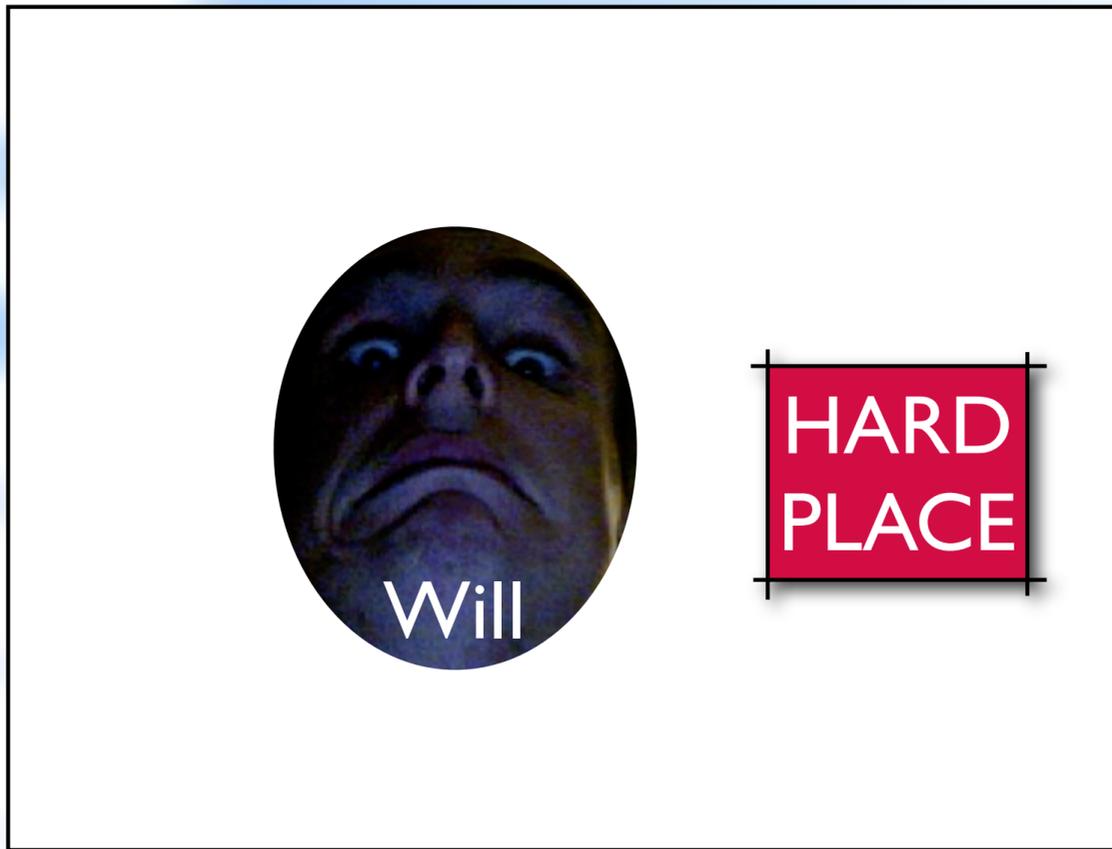
Using open source in an open source environment.
well, we have lots of bits but the critical element we also need is glue. Like Chris I like python for this.

the glue is defined by our workflow and vice versa.

for us the glue sticks together:

Grass is great for Raster Processing
R is great for statistical analysis
Postgres is a great database
PHP is great for web scripting
mapserver is a great rendering engine

import gdal is your friend



Open Source Application
Predictive Ecosystem Mapping

We have developed a system to run our Predictive Ecosystem mapping Process. This system combines the attribute handling of postgres with the raster power of Grass. Also In the mix is python / ogr / gdal.

So we have a multitude of areas to look for any issues encountered: from server optimisation to operating system grumbles to versioning issues. For application development the key we have found is to hold on to our documentation tight and make sure its available to others in the company on our internal wiki

what is the future of forest inventory...?



what is the future of open source technology in forest inventory?

Timberline's Commitment:

The regular use of open source tools

The disclosure of the use of these tools and...WHY!

The honest appraisal of the toolsets available

Giving back some of our code to the community...

<http://sourceforge.net/projects/geotoolbox/>

...huh? a consultancy? how, what ...why???

Our commitment to the community.

well we are users... not really developers. Though we develop for ourselves and if our clients demand.

So, what can we do for the community?

hmm, well ... the regular use of open source tools. this sounds small, but in a production GIS environment this is pretty big news. By doing this we are saying that these tools are better than the proprietary equivalent - like peter rushforth said yesterday its all about the best of breed

More importantly for the community, we tell people that we use Open Source software. So, we're not just using it as some kind of demo, but in production and proud of it!

The third thing we can offer is the honest appraisal of tools and talk about the tools that we use.

So, we are giving back to the community. But this is open source, so... where's the code? check out this

yup, were a consultancy and we're giving back some code...

Will's Wish List:

Stereo Image Interpretation

Documentation

Topology

Documentation

Scaleable Vector Graphics

Documentaion

A (Quality) Cartographic Engine

Documentaion

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My wish list

this is in the order of... input process output... or data production data analysis product generation...

so...

Stereo image interpretation:

-Being able to conduct soft copy mapping projects in a open source environment would be a very exciting step forward for Timberline.

-Soft copy mapping - being able to see stereo pair images in 3d with silly looking goggles. Forest inventory is dependent on this kind of technology.

-This is one of the last bastions of hard proprietary GIS and is not that easy a problem to solve... it may involve significant investment. But certainly worth while. Especially as the options on the market right now are very expensive or not really stable yet.

Documentation:

I'd really like to see good documentation for Open Source GIS products. That would save us a ton of time!

Topology:

Big vector data sets should have topology. Line based validation is there in postgis.... But polygon based left right relates are a little more involved. This would be a great thing for us to work out. I realise that topology is much deeper than left right relates... Its much more about the data integrity (and i hope i'm not getting too coverage-centric here). but when it comes down to it... I want to see the data integrity being taken care of under the hood... perhaps in PostGIS and allow me to do the analysis I want to based on the topology, that relational / contextual kinda stuff

Documentation:

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Thanks for listening

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