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# OPEN SOURCES

WELCOME TO *OPEN SOURCES*. LET'S START RIGHT AWAY WITH A QUICK QUIZ. FIRST QUESTION: WHAT DO THE FOLLOWING ALL HAVE IN COMMON? LINUX, MYSQL, JBOSS, APACHE, PERL, PYTHON, AND FIREFOX.

Yes, that was an easy one – they are all open source (OS) products, of course, and they are all well known, well respected, and widely deployed. Odds are very good you're using some of them every day, although you may not even realize it.

Second question: what do these all have in common? MapServer, MapGuide, PostGIS, GDAL, GRASS, OpenLayers, and QGIS.

Not all of these names might be familiar to you, but you probably guessed: they are all OS packages for the GIS industry – servers, web clients, desktop applications, and libraries used by thousands of geospatial professionals everyday. This column is the first of a monthly series about the power of those packages, their developers, and their users.

## Why open source?

Why is open source software – and, by extension, the open source development model – getting so much attention these days? The two simplest answers are perhaps “because I download it for free” and “because I can get the source code”. Both good reasons, certainly, but there a number of other reasons for choosing to use OS. The stability of the product is often much higher, making it a firmer foundation on which to build your own applications or perform your own data analysis. The release cycle is often much faster, meaning important bug fixes or new features appear more frequently. And while there certainly are many open source projects aimed at “cloning” popular closed source products, a number of open source products use technologies and approaches that are completely new and innovative, well ahead of their closed source cousins.

There are also a number of misconceptions about open source, often due to misunderstandings about licensing models, the GPL (GNU General Public License), and whether or not open and closed source can be used together. The reality is that many open source packages are sufficiently “free” that most “proprietary” (closed source) applications today are built using at least a few open source packages under the hood. In future columns, we'll be talking more about these issues: what open source really means, and when and how to use it in your own work.

## Who speaks for open source?

Early in 2006, a group of people from all around the open source geospatial community got together to see whether there were some means by which the various independent open source projects underway could band together, in order to better collaborate, share resources, promote their products, and serve the user community. Out of that meeting the Open Source Geospatial Foundation (OSGeo) was born, and OSGeo now serves as the umbrella organization for the open source community in our industry.

The most visible function of OSGeo is in its hosting of some of the most significant open source projects in use and under development today. Following the model of the highly successful Apache Foundation, these OSGeo projects follow a formal “incubation” process

designed to provide both the development community and the user community with an assurance that each open source project is safe, supported, and stable. For example, during incubation the project's source code is examined for proper copyright and licensing provisions. The project is reviewed to make sure that the developers use standard practices such as source control and bug tracking. Checks are made to ensure that the project leaders have a documented governance process and that there is an active, supportive user base for the project. Today there are over a dozen projects in OSGeo, either undergoing incubation or graduated.

In addition to hosting projects, OSGeo and its members are actively involved in promoting the use of open source in our industry. The foundation does this through its members' blogs and other online venues, through published articles and columns (like this one), and through presentations and workshops at conferences and tradeshows. OSGeo also works to support public access to state-collected geospatial data in open data formats, and we are starting to host a broad collection of data ourselves. The foundation is even creating and promoting curriculum materials based around the use of open source software and public data, for use in academic settings, in-house corporate training, or the general public.

## Stay Tuned

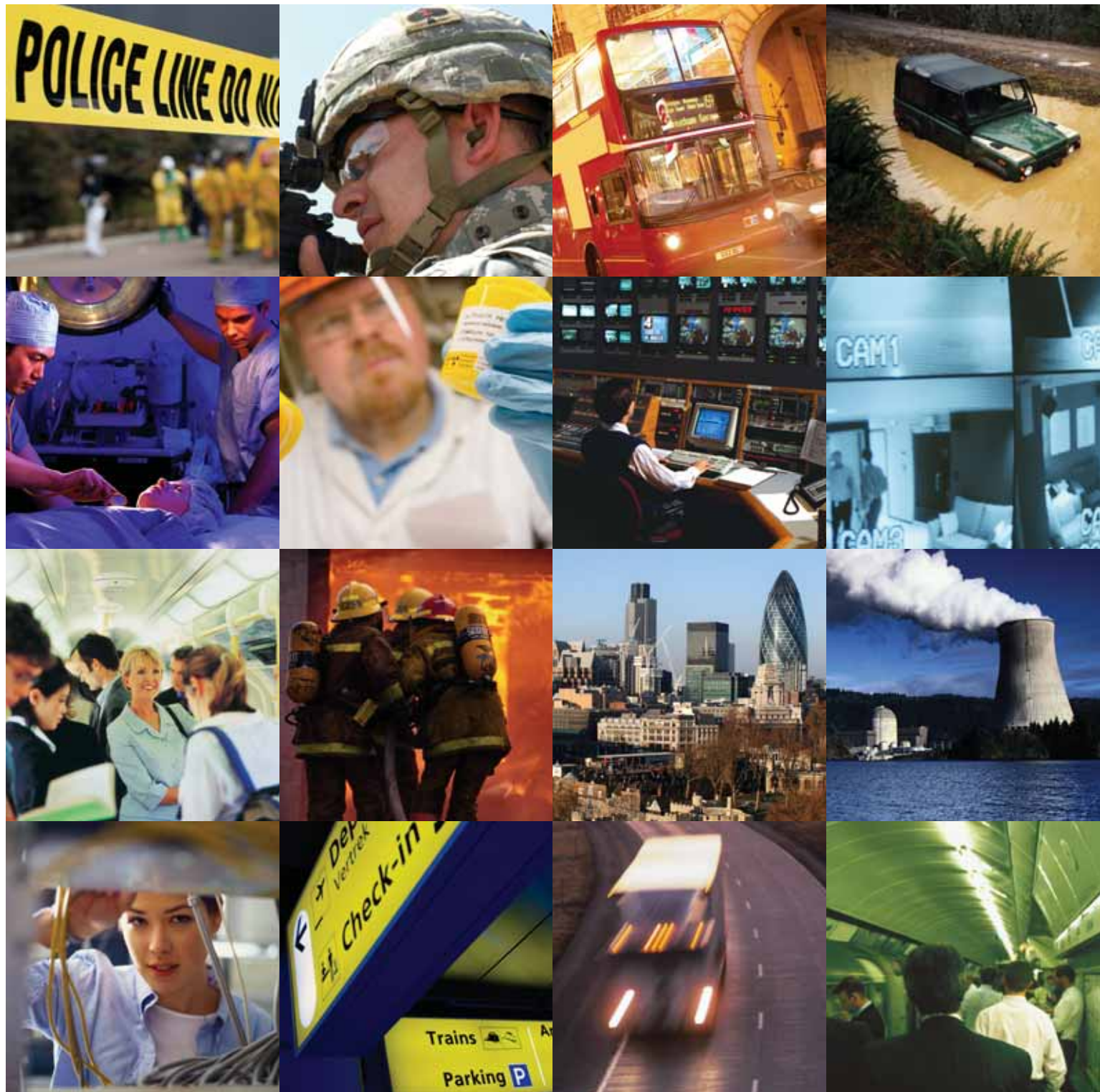
In the coming months we'll be looking deeper into OSGeo and the open source geospatial world. Each month will bring a new author from the leading edge of the open source movement. We'll get to see how three popular, independent, geospatial OS projects work together in a virtuous circle; we'll see how one of the oldest open source projects in our field got started way back in 1982(!); we'll look at the public and open data efforts going on all over the world; and of course we'll see how some great open source applications are used daily by people out in the field.

Want to learn more about the open source geospatial world in the meantime? A few suggestions:

Check out the work that OSGeo is doing ([www.osgeo.org](http://www.osgeo.org)). Check out the hosted projects and initiatives, join our mailing lists, or just say hello on IRC (channel #osgeo).

Books on the open source GIS are starting to appear. The most popular is perhaps “Web Mapping Illustrated: Using Open Source GIS Toolkits” by Tyler Mitchell (now OSGeo's executive director) from O'Reilly Media. While published in 2005, it still gives an excellent introduction to the range of tools available.

The yearly open source geospatial conference, FOSS4G, is being held this year in September in beautiful Victoria, Canada ([www.foss4g2007.org](http://www.foss4g2007.org)). With sponsors ranging from Autodesk to Google to ESRI, this four-day event will have hundreds of attendees and features dozens of presentations and workshops about all the open source work going on today in the GIS industry.



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