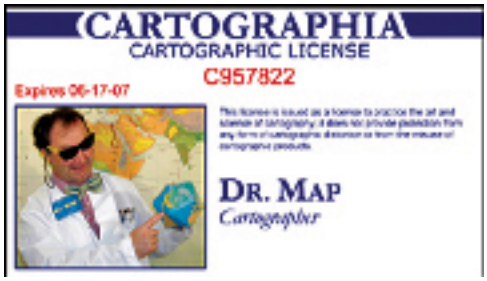

CartoCareers

Ask Dr. Map!

Dear Dr. Map:

Q: What is GIS? Will I be able to explain it to my friends and family in one sentence or less?

A: GIS stands for geographic information system. GIS' are tools for answering scientific questions about maps, such as "where is…?" or "what is near…?" They are digital maps linked to information systems and databases, such as GoogleMaps or MapQuest. That's three sentences. Use the second one with your friends and family.

Q: What is cartography? Aren't paper maps obsolete?

A: Cartography is the study or practice of making maps. While in the past, maps were drawn on paper and distributed in sheet series, books, magazines, and newspapers, now they are almost exclusive made by computer and published on the Internet. But, of course, the printed page is still very much around, so today computer-drawn maps also find their way onto paper. Paper maps are not obsolete, as they have many practical advantages over digital maps. For example, you can't light a campfire or wrap fish with a digital map.

Q: I love maps, computers, and exploring. What is my ideal career?

A: Might just be cartography! There is nothing better than finding a career doing something that you love to do. Try using one of the on-line job aptitude surveys. Many people who have come to me over the years came because a counsellor had told them that cartography was their ideal career. If that fails, there is always professional baseball or movie acting—not ideal, but acceptable.

Q: I've collected a street map from every place I've ever visited—does that make me weird? Are there other people out there like me?

A: Yes, you are weird, but I suspect there are others like you. Why collect stuff when life is about collecting geographical knowledge and experience? Let the map libraries, Google, and Wiki-keepers build the collections for everyone online. Then get out and visit new places!

Q: I've never met a "GIS person"—how big is the GIS industry?

A: It's big. Larger than the frozen foods industry. The ESRI User conference in San Diego recently attracted 13,000 people, and that is just for one software company. GIS is probably bigger than the economy of many small countries, and it's growing rapidly.

Q: What job title do GIS people have?

A: "GIS Analyst" seems most popular, but I've seen everything from "geospatial scientist" to the now quaint "cartographer." Bowling Green State University's Geography Department has a list of its graduate's job titles at: http://www.bgsu.edu/departments/geography/Job-Titles.htm. Take a gander there.

Q: Are there enough jobs for everyone who wants to be a GIS professional? I don't want to go through all this education to end up as a fry cook.

A: The GIS job market is very strong. You can get a sense of how strong it is at: http://www.geoplace.com/careers. Don't worry

about ending up as a fry cook, just tell them Dr. Map sent you, and smile politely during your interview.

Q: I think GoogleEarth is really cool—is that GIS?

A: GoogleEarth is better described as a GeoBrowser, the equivalent of Google or Yahoo for maps and images instead of for text-based web pages. It includes only the most basic tools for analysis. GIS can do map capture, storage, retrieval, analysis, and display. GoogleEarth does some but not all of these. GoogleEarth is, however, very good at the retrieval and display parts, and it is easier to use than most GIS software.

Q: I hear a lot about satellite images and GPS—is that GIS?

A: These are increasingly a big part of GIS, but as sources of information for analysis and display. Imagery provides views of the landscape onto which maps can be placed, and GPS locates things accurately. Most GIS are equipped to ingest data from both these sources.

Q: I think satellite images are a lot cooler than maps—can I get a job doing just remote sensing?

A: Many people in GIS actually work almost entirely with images, but yes, you can get a job just doing remote sensing. Many universities have programs where you can get a degree specializing in the field. If you are interested in this, I'd suggest looking at: http://www.asprs.org.

Q: I've never met a GIS professional. Are there any in our community? (i.e., can I get a job in this city?)

A: Yes. And even though I don't know where your community is, I can pretty much guarantee there are GIS jobs available there. And maybe you HAVE already met many GIS professionals, and never knew it! Don't you know the secret handshake?

Q: Can I get rich doing GIS?

A: Yes, and when you do, remember it was Dr. Map who got you in at the first interview. Send your tax deductible donation to Dr. Map, c/o ACSM.

Q: I heard of something called "geospatial intelligence." Are there really GIS spies?

A: Yes, but if I told you about it I'd have to terminate you with extreme prejudice. A very large government agency is named after GeoSpatial Intelligence. Check out www.nga.mil. They even have a kid's web site, just like that other three letter agency outside Washington, D.C. These groups hire a great many people with GIS skills.

Dr. Map has a Ph.D. and a cartographic licence. Send questions to Dr. Map at askdrmap@cox.net, or visit him on the web at http://www.drmap.info.

The next generation remote sensor

"When we designed the G2010 series, our goal was to develop a sensor that's smaller, lighter, faster, and simply unsurpassed in its image quality," said Ryan Johnson, President of Maryland-based Global Imaging Technologies, at the launch of the sensor in Baltimore, Md., in August. "The G2010 series not only has innovative processing capabilities; it provides geospatial data at highly competitive prices."

Taking up the space of a small suitcase and weighing 44 lbs (about a tenth of the weight of current digital systems), the G2010IMU model incorporates highly accurate IMU that is coupled to GPS. The frames are just under 8,000 pixels wide. On top of that, the system is fully automated and comes with an internal storage capability of 1,000GB.

Photo geo-referencing

Thales added GPS-Photo Link software to its Business Partner GeoSpatial Experts to enhance its customers' options for meeting their GPS and GIS needs. The software is fully compatible with the Thales MobileMapper CE handheld GIS data collector. Users can capture their position with sub-meter accuracy using MobileMapper CE and automatically apply location data to digital photos taken at the same spot using the GPS-Photo Link PC software. The result are geo-intelligent data enriched with images, and delivered in the form of html files or GoogleEarth or ESRI shapefiles, all of which makes the management of resources and projects easier and more efficient.