



INTERVIEW WITH ESRI'S JACK DANGERMOND

BY CONNIE WINKLER

Jack Dangermond is a true visionary: He saw maps ... and more maps ... when he launched ESRI as a land-use consulting group in 1969. To be precise, Dangermond saw the world—and the future—geospatially. Today this firm is the preeminent leader in geographic information system (GIS) software. ESRI has harnessed GIS to Internet technology and paved the way for Information Builders to integrate GIS with products like WebFOCUS. ESRI software is used

by more than 300,000 organizations worldwide, including most U.S. federal agencies and national mapping agencies, 45 of the top 50 petroleum companies, all U.S. state health departments, and in dozens of other industries. Worldwide it's used by more than 24,000 state and local governments including Paris, Beijing, and Kuwait City. Today the privately-held company, the fourth largest in the software industry, has grown to 2,700 employees and almost 100 subsidiaries and distributors worldwide.

Dangermond himself is recognized as a pioneer in spatial analysis methods and a distinguished, influential force in GIS, who's received numerous honors, medals, and lectureships. He holds multiple degrees in environmental science, urban planning, and landscape architecture. Recently from ESRI's Redlands, Calif., office east of Los Angeles, Dangermond visited with writer Connie Winkler.

IB MAGAZINE - As the premier provider of GIS software, what are some of the key challenges your customers face in today's increasingly sophisticated marketplace?

DANGERMOND - One of the key challenges ESRI customers face today is the ability to effectively synthesize all the data they're collecting about their organization and business into an easily accessible and meaningful indicator of performance, growth, and/or sustainability. Another challenge is being able to disseminate this information to a large number of users in a way that they each can understand and use quickly and efficiently.

The unique combination of GIS and Business Intelligence (BI) software helps solve both of these challenges by providing customers with the

tools to access and analyze this data in real-time while being flexible enough to allow users to intuitively assimilate and share this information quickly with decision makers.

IB MAGAZINE - What's changed over the last several years, as all of us have become more "geographically" conscious—if anything?

DANGERMOND - Two big shifts are underway. We're evolving towards a more human controlled world. Our population is increasing along with demand and consumption of our limited natural resources. This has resulted in the need for more awareness, accountability, and understanding of our world as a system.

By using digital technology we've begun capturing everything we know about the earth and making it

available to anyone, anywhere... instantly. GIS helps create better ways to access, manage, and manipulate this data to improve decision-making and is making people more "spatially aware."

The combined use of a GIS and BI can make the job of assimilating all this collected digital data much easier and far more effective. The result is a geographically intelligent information system that provides a real-time window into the data. This allows the organization to access the data that they need quickly and accurately, and ultimately make better decisions.

IB MAGAZINE - ESRI is the market leader in enterprise-wide GIS. What's the synergy between Information Builders and ESRI, and how do you anticipate it evolving?

DANGERMOND - ESRI and Information Builders have teamed to deliver a geographic business intelligence solution that allows users to rapidly and intuitively analyze real-time information with a spatial component by presenting business intelligence information in the context of physical location.

The synergistic effect of these two technologies improves decision making and responsiveness while extending the reach of GIS to address a wide range of business applications. For example, users can better estimate property risk exposure from natural and man-made disasters, analyze sales and marketing data to improve customer market penetration, and more precisely select an appropriate site for a new business.

IB MAGAZINE - What unique problems does BI solve for the GIS user?

DANGERMOND - Business Intelligence gives the GIS users new tools to boost their reporting and data access capabilities. Think of GIS as the viewfinder to data in the context of location, while BI is the drilldown into that same data with clear and concise reporting and/or tabular formats. The two technologies nicely complement one another by handing users the ability to toggle between the report and the map, thus improving decision-making capabilities.

IB MAGAZINE - In addition to BI, Information Builders subsidiary, iWay, provides business integration between applications such as SAP and PeopleSoft, as well as all data including non-SQL mainframe sources. How does this benefit your customers?

DANGERMOND - While we're still exploring the synergies between iWay and GIS, the immediate benefit is quick and easy access to data stored in legacy systems. This data can be accessed by the GIS through

iWay, further improving data integration capabilities.

IB MAGAZINE - Information Builders and iWay customers are typically Fortune 500 companies, where thousands of non-technical business users manipulate Web-FOCUS to create and share information. How well does this match with ESRI's customers and their needs to provide BI solutions?

DANGERMOND - ESRI customers traditionally have been GIS professionals or technical users, but with the expansion of GIS throughout the enterprise, it is now being embraced—and quite effectively—by non-technical users as well. This is why we see a good match between our two technologies, as Information Builders' BI tools provide additional data access and analysis capability to ESRI customers. Of course, they can continue sharing highly technical data, but now it's easier to include less technical analyses and data.

IB MAGAZINE - In the future, how do you see ESRI using Information Builders software to empower your customers? In other words, what's your future vision for ESRI?

DANGERMOND - ESRI is very pleased with the joint benefits that our customers have realized through our relationship with Information Builders. We will continue to support and grow our relationship with Information Builders as a means to provide our customers with superior BI tools that enable them to improve their decision-making capabilities.

IB MAGAZINE - And what would you say is the future of GIS and mapping software?

DANGERMOND - In recent years we've seen how GIS technology, particularly on the Internet, is evolving into a "services" technology – serving up information, data, and application. There's an interesting harmony between these two highly-related

phenomena. If we back away from our individual GIS efforts and see them in context, we realize they represent a mosaic or network of a larger system. Our individual efforts are systematically abstracting our planet into digital databases that in turn are being used to address almost all of the world's problems. It's my view that the collective efforts of the GIS community are in the process of being organized into a larger system that will result in a societal GIS for our planet.

"Digital Earth," "Spatial Data Infrastructure," and "Global Nervous System," are all names given to describe a similar concept.

From a technology standpoint, this system is evolving into place through integrating the Internet with the full body of theory, methods, and technology coming out of the GIS community. It will bring together the measurement technologies of Global Positioning Systems (GPS) and remote sensing with the distributed computing and interoperability concepts of Web Services. Real-time information systems, wireless communication, and mobile computing will also play a role. Interestingly enough, it is GIS and the concepts of geography that will provide the conceptual framework for bringing this all together.

IB MAGAZINE - Finally, what's surprised you most about the growth of GIS generally—and ESRI specifically?

DANGERMOND - Our growth has involved a steady investment in educating our users and potential users in the value of using geographic information for decision-making. What's been surprising is the continued interest and investment in ESRI even in poor economic times. I wouldn't say GIS is recession proof, but we have seen ongoing benefits that justify ongoing interest. 🌐

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