

Putting ArcGIS desktop to work

—by Melinda Peacock

ArcGIS 10 has arrived. This version is said to be easier to understand and use. I find that many land surveying and engineering companies use the basic ArcGIS level, ArcView, simply because of limited in-house expertise with GIS. However, Michael Ludvigsen, Jr., of Benton & Associates Incorporated in Jacksonville, Illinois, has observed that his company has begun moving utility mapping for clients from AutoCad to ArcGIS, perhaps because more counties in Illinois are now acquiring good quality aerial photography.

The use of aerial photography to create a map that is tied to a township grid has drastically changed the mapping industry and has propelled us into what I call the 'digital revolution. This will change the way maps are viewed—a paperless dawn. City and county officials can view their townships like onto an x-ray. Utility systems laid out within a sectional grid can be more accurately placed by aerial photography. Workers digging up a utility line can use ArcGIS and aerial photography together to measure off exactly where to dig. And officials can visualize the terrain and pipeline locations in reference to buildings, trees, and other obstacles that may complicate the work. This was unheard of 25 years ago.

"The greatest benefit," says Ludvigsen, "is that the ArcGIS is able to mesh various types of data in completely different formats into a finished product that is tailored to our client's needs."

As surveyors arrive at work and sit down to their computers, they do not have to worry about downloading software, installing applications, and fixing the bugs of a program—that is the job of the IT department and so is setting

up ArcGIS desktop, although a GIS specialist would most likely be able to handle the task too. Once ArcGIS is in place and you have downloaded your local mapping grid, using ArcGIS 10 is simply a matter of time and practice.

The local County office—usually its Recorder, GIS professional, or Appraiser—will provide the data you will need, and, if you are lucky, the data may even be available on a digital grid. You can then either perform your work in AutoCad or other formats and upload that work to ArcGIS or you can use ArcGIS to get all the work done in one location.

The map you create will be more visual and easier for your clients to understand, which would help them make more knowledgeable decisions for the city, the county, or some other jurisdiction.

ArcGIS desktop is revolutionizing digital mapping. With ArcGIS, surveying and engineering companies can now produce better mapping products faster, and in a more efficient manner. These products can be sent to clients electronically, in a viewable format, via their laptops, iphones, or ipads for instant viewing at a meeting. Gone is the need to run copies, send them by FedEx, and hope that they arrive on-time. Instead, show your clients their world, their investment through a professional product built from surveyor grade data and leveraging surveyors' expertise in an environment moving toward digital mapping. ■

ArcGIS assists CGIAR increase agricultural productivity

The Consultative Group on International Agricultural Research (CGIAR) signed a site license with Esri providing its

15 research centers throughout the world with access to ArcGIS software. CGIAR works in collaboration with hundreds of government, civil society, and private organizations to reduce poverty and hunger, improve human health and nutrition, and create greater ecosystem resilience. Esri's geographic information system (GIS) technology will be implemented in the centers to foster programs for sustainable agricultural growth benefiting the poor.

"This site license agreement will ensure that scientists in every center have access to the GIS technology they need to continue their important work including the creation of data collections on population, poverty, climate, soils, crops, livestock, transportation, and biodiversity," says Enrica Porcari, chief information officer of CGIAR. The centers will provide spatial applications that help users more readily see and understand interrelationships between such subjects as urban and rural markets, crop production, deforestation, and soil erosion.

Esri's ArcGIS will provide the platform for collaborative efforts in GIS-based agricultural research at global, regional, and local levels in every center. This will allow CGIAR to continue creating online applications such as the Amazon Initiative which allows dynamic queries about biomass and deforestation in the Amazon. More than 10 CGIAR datasets and applications are also available as services from ArcGIS.com, a hosted Web site available for anyone to create, find, and use maps, applications, and tools.

The new agreement with Esri represents a major advance in the ability of CGIAR and its partners to build and share location-specific agricultural and natural resource knowledge products. ■