Assessment Powered by Enterprise GIS in the Los Angeles County Assessor’s Office

Mark Greninger

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Dear IAAO Members,

By the time you read this, IAAO will have just completed another successful Annual Conference. At the time of publication there were more than 870 registered attendees. With late registrants we may reach the same attendance numbers as last year in Grand Rapids, Michigan. Thanks to everyone who invested their time and energy to attend. The Annual Conference offers tremendous educational and networking value as well as being an enjoyable social experience. It is an opportunity for each attendee to bring back something useful to share with colleagues. As such, it is an experience that extends beyond just the few days we meet to share our knowledge and experiences.

The Executive Board met July 18–19 in Chicago, Illinois. The following is a summary of significant action items and decisions.

- There were a number of changes to Procedural Rules. As might be expected, this is an ongoing process as the organization grows and changes.
- An amendment to Bylaw 7.2 and deletion of Bylaw 5.1.1.9 were approved as previously exposed to IAAO membership.
- The board approved the criteria for a student membership payment level with minor modifications. Student members will receive all IAAO services and benefits electronically and they cannot serve on an IAAO committee, run for an elected office, or vote in any IAAO election.
- The board approved the criteria for an entry-level membership payment level with minor modifications. Entry-level members will receive all IAAO services and benefits electronically and they cannot serve on an IAAO committee, run for an elected office, or vote in any IAAO election. Membership at this payment level is limited to three years.
- The board voted to select Niagra Falls, Ontario, as the location of the 2019 annual conference.
- The board approved an additional $25,000 for the new Monday night Member Appreciation event at the 2014 annual conference. This event is being held in place of the President’s Dinner, and all registered attendees are invited.
- The budget was increased for review of Course 112 Income Approach to Valuation (Contemporary Methods) to allow for a pilot course using students, instructors, and the development team.
- The board approved a recommendation by the Infrastructure Review Special Committee to recruit and train mentors (or coaches) and graders for the Certificate of Excellence in Assessment Administration Program.
- The board approved a plan to create an IAAO Membership Website Career Builder Widget to advise and guide members on the best courses to achieve success for their specific job description and to outline the path to achieve career goals.
- The board accepted revisions to the board Code of Conduct document. There was also a consensus to develop a policy regarding conflicts of interest for board members.

(continued on p. 21)
Assessment has always been about maps, parcels, and value, but it has moved from the paper maps, sketches, and appraisals of the distant past, to computer-aided drafting (CAD) in the 1980s and 1990s, to the world of geographic information systems (GIS) today. An ongoing question through assessment offices is, “What is GIS?” The U.S. Environmental Protection Agency defines GIS as a computer system that allows users to map, model, query, and analyze many different sources of geographic data within a single database based upon location. It’s a tool used by government, commercial businesses, schools, and other organizations to understand situations and solve problems.

The Los Angeles County Office of the Assessor is the largest agency of its kind in the United States, managing a property database of more than 2.6 million assessments. Leveraging GIS technologies and data has enabled the assessor’s office to provide more for its constituents.

Emilio Solano, manager of Mapping and GIS Services, has been with the assessor’s office for more than 25 years. In Guatemala in the 1960s, he worked on computerized systems at his place of employment, an engineering firm. Moving into the mapping position at the Los Angeles County Office of the Assessor, Solano remembers how strange it was to find that everything was still paper with no computers.

In time, Solano helped the office transition from paper maps, which required 65 engineers to maintain, to today’s GIS systems, which 42 engineers use to manage the 2.4 million parcels in Los Angeles County. He has led the integration of GIS technologies, tools, and data for more than 10 years.

The Addition of Imagery
Critically, moving to a GIS world enables assessment offices to add new types of geographic information to their tool belt. One of these data types is aerial imagery, which allows assessors to see what is on the ground without having to go into the field. Thus assessors have more information before they go into the field, and in some cases, field visits are eliminated altogether, saving time and expenses. As the use of GIS grows, assessment offices are searching for solutions that fit their needs and striving to leverage enterprise-level investments in imagery, software, and tools that provide more capabilities at reduced costs.
Traditionally, aerial imagery has been captured straight down, also known as ortho imagery (see figure 1). However, in 2002 the assessor’s office acquired a new product, oblique imagery, also known as bird’s-eye view, which provides a more intuitive way to review property from the desktop (see figure 2). Critically, this new technology enables measurement and the overlay of existing GIS data, which had not been possible before.

The Birth of LARIAC
In 2005, the Los Angeles County Office of the Assessor was a cofounder of the Los Angeles Region Imagery Acquisition Consortium (LARIAC) program, established by the Chief Information Officer, Department of Regional Planning, and Department of Public Works. The goal of the program was to collaboratively acquire digital aerial data with organizations willing to share the acquisition costs. Many people put a tremendous amount of effort into creating LARIAC. Chief among those were Milan Svitek, GIS Manager for the Department of Regional Planning, and John McIntire, Chief Information Officer, who were able to successfully complete the first imagery acquisition. A number of other county departments and more than 30 cities immediately realized the benefits of cooperating to acquire these data for their operations.

The assessor’s office had been working on new digital and GIS-based systems, and the imagery provided by LARIAC would fit in perfectly. Computerization of parcel mapping had already begun, but black-and-white photographs were being used to help with mapping analysis. The process was laborious and expensive. As the office examined the consortium and the technology being introduced, it became obvious that this program would work, especially for property owners.

The first flights for LARIAC took place in 2006 and have been repeated every two to three years. Currently LARIAC is in its fourth data acquisition cycle (2014). The aerial imagery and data collected include 4-inch resolution orthogonal imagery, infrared 4-inch oblique imagery, 5-foot digital elevation data sets derived from LiDAR, and 2-foot elevation contours for the entire county. Initially, more than 8 trillion bytes of data were delivered on hard drives to participants. These data are accessed through desktop applications, including Esri’s ArcMap software for ortho imagery and Pictometry’s Electronic Field Study (EFS) application for oblique imagery. It was a good start, but installing and maintaining desktop software not only was time-consuming and expensive but also reduced participation in the project because of the complexity of deployment.
To bypass these issues, LARIAC worked closely with Pictometry over the next few years to provide faster and easier delivery and deployment models for the massive volume of information being delivered. The project team of Mark Greninger and Nick Franchino, who replaced Mr. Svitek as Project Director and Project Manager, respectively, focused on delivery speed once the value of the information had been proven.

**LARIAC in the Cloud**

The real change occurred when aerial imagery deployment moved to the cloud in 2010. Cloud-based services now offer all the original benefits of the desktop software but in the cloud. This development has provided access to more users, faster deployment, no configuration, no local hardware purchases, and no custom configuration. A key tool within the cloud-based platform is Pictometry Online (POL), which provides access to current and historic oblique imagery and orthophotography, as well as the ability to rapidly search and navigate through hundreds of terabytes of imagery and data (see figure 3). Users can quickly locate, display, and extract the image or portion of the image most relevant to them and easily share access to critical visual information. They can also measure, analyze, and mark up the images and maps to support their work. GIS data layers can be uploaded to POL, overlaid on the imagery, and easily shared with staff in the office or in the field.

For LARIAC members, moving to the cloud-based platform was a game changer. The consortium shifted from a data distribution model to a business services support model, whose value was more apparent and faster to realize. GIS brought all these people together, but it was the access to imagery that made it real. Early in the program, LARIAC users depended on data sets downloaded onto drives or on printed maps—a cumbersome process. As the technology shifted to the cloud, the result has been rapid, easy access to aerial imagery for everyone.

**With the ability to view and download from any device, LARIAC users can access data quickly from any location.**

Because LARIAC is a web-based solution, access to the data is as close as typing in a username and password (no more desktop software to wrestle with).

**Figure 3. POL screen with GIS enterprise overlays (parcel boundary) and additional screen usage (parcel map)**

**Figure 4. Parcel layer over the imagery updated weekly through GIS enterprise efforts**

With the ability to view and download from any device, LARIAC users can access data quickly from any location. Because the system is interconnected, information can be updated once and deployed across the entire LARIAC software platform. As an example, each week, the parcel layer is read directly as a service from the county’s enterprise GIS systems. Because these data are updated weekly, all participating agencies are now working with the same accurate and current information (see figure 4).
The value of the system shows: POL averages more than 38,000 hits per month.

**Imagery in the Los Angeles Assessor’s Office**

Solano and his team have focused on building applications specifically for assessment from the enterprise GIS system that is in place. They have been able to provide not only mapping and surveying tools for the assessor’s office but also applications for assessors in the field. The goal is to have assessors prepared with all pertinent information including imagery, history, and resale valuations.

This focus on having field assessors prepared for the field assessment has made a huge difference in productivity. The number of field visits has been reduced, and the valuable information required for assessment of places with limited access is available.

Working alongside Solano is Garo Megerdichian in the mapping and GIS department. He notes that a strong benefit of aerial imagery is confirming and defending values during appeals. The historical images are critical in the appeal process. Since California does not have any set standards, the Los Angeles assessor’s office conducts inspections every year, making the historic imagery from the flights critical.

Solano’s team integrates imagery with GIS applications such as Esri ArcMap. They reference imagery for mapping verification. Using the image overlay to verify position of buildings within the parcels and for ongoing development needs is very beneficial in showing what is present and, even more important, what is missing. With development professionals requesting maps and imagery, the department is confident that the information is accurate and that buildings are not being split with parcel lines. The accurate mapping is not only important to assessment but also the key to working with the public to explain updates and support planning and addressing of parcels (see figure 5).

A recent need that has arisen is the use of imagery within the tax collection department. When a city or county is putting a defaulted property up for sale or auction, it is important that the property information is correct. Cities and counties are using GIS and imagery validation solutions to save time and avoid lawsuits. Being a part of the process, the LARIAC data and imagery reduce risk and increase accuracy.

**The long-term goal is to make GIS more accessible and usable for everyone in Los Angeles County by extending the GIS platform for LARIAC to include imagery.**

**The Next Technology Push: Mobility and Data as a Service**

The next big technology push is mobility and data as a service (DaaS). GIS is an important tool for assessors, and the need to have immediate access through mobile devices is growing, including the need to provide accurate geographically driven data. The ability to have information that is constantly updated by several departments because they can upload corrections and/or new data is priceless. Everyone shares in the benefit of finding trends and maintaining overall accuracy of data for public safety, land use planning, and more.

Part of the DaaS goal is to extend the GIS services beyond imagery by adding other critical GIS data sets, such as infrastructure, roads, and address information, to the services provided as part of the consortium. The long-term goal is to make GIS more accessible and usable for everyone in Los Angeles County by extending the GIS platform for LARIAC to include imagery. With GIS solutions and software, cities and agencies can focus on building applications that fit their needs rather than importing data and installing software. Additional data that LARIAC could provide to its members include street view imagery, change analysis, and planimetrics.

With the immense opportunity to develop solutions with the LARIAC program, all parties are committed to helping extract critical data from the imagery—ortho, oblique, LiDAR, or street view. With three million structures requiring sketches and change analysis, it is an ongoing process to keep...
the data updated and provide solutions for several different workflows. By having the base imagery and GIS solutions already in the central location as part of the DaaS, cities and departments can focus on key updates for their residents, including zoning, permits, and address accuracy.

As with every enterprise software system, security and redundancy are critical. The LARIAC program, with its focus on DaaS, has brought that to the assessor’s office. Solano’s team was especially happy with the data storage and redundancy provided from the enterprise infrastructure and cloud-based access. DaaS is providing the platform not only to build applications but also to store all data safely utilizing the strong security and redundancy of enterprise systems.

DaaS is the key to future success and continued growth. Providing the additional forms of imagery, including street-level and three dimensions, while continually striving for higher resolution oblique, ortho, and LiDAR imagery is the consortium’s number one goal. And, as noted earlier, the intent of LARIAC is to make this an enterprise solution with access for everyone. Everything lives on a map. When a map can be overlaid with visual intelligence and made available to the masses, it is a win-win at an enterprise level.

Many cities have recognized the strength of collaboration and shared data and are working with the Los Angeles County Office of the Assessor, utilizing the imagery and then adding planimetrics including building outlines and object identification.

LARIAC as a Key to Collaboration and Cost Savings
A major accomplishment of LARIAC has been the breakdown of silos. It has saved its participants more than $15 million during the life of the project. LARIAC has also been the key to growing partnerships between the cities and the county based upon the shared effort to make the project successful. Data accuracy, quality, and consistency of imagery combine to improve public information and education. The assessor’s office is committed to LARIAC and the continual improvement in services through the enterprise GIS solutions being developed. The office has been able to focus on what is important to property owners. Improved public communications, fair and equitable valuations, and overall cost savings make a difference that everyone notices (see figure 6).

For the assessor, the timing and goals of the consortium worked. By investing in the right technology, the right companies, and the right IT and GIS personnel, the assessor and LARIAC made major enhancements to the way the county does business. Focusing on sharing data and imagery at a technical level made sense and made a difference.

Now more than 40 cities and multiple departments and organizations share the same data and aerial imagery. Where it is easy to traditionally get caught up in politics and silos, this group of technical GIS and mapping professionals has provided the platform that creates true collaboration.

Figure 6. Multiple departments and cities in Los Angeles County access POL to view imagery and data
Conclusion
LARIAC is an internationally recognized model of regional cooperation, garnering attention by enabling participating governments to efficiently and cost-effectively acquire and provide high-quality imagery-based services. The county has established a reputation as a visionary leader in the open and collaborative development and use of geographic information.

Through program meetings, workshops, and user groups, LARIAC has supported knowledge transfer and alignment of effort among cities, and this has led to the improved use of aerial imagery and other geographic data products. The ultimate beneficiaries of LARIAC are the public, who benefit from lower total cost of government, better application of resources, and more efficient government operations.

Mark Greninger is Geographic Information Officer for the Los Angeles County Office of the Assessor. A graduate of Stanford University with a degree in environmental geology, Mark quickly became passionate about GIS and has been in the field ever since. He began his work at the Environmental Protection Agency in San Francisco, where he built his first GIS platform. He then moved to Los Angeles County, where he now oversees the deployment and effective use of GIS technology for the county’s 100,000 employees and 10 million residents.

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Commercial Property Sales
The sale of a group of storage facilities was considered an arm’s-length transaction for property tax purposes even though it was reported as a related-party transaction for Security and Exchange Commission (SEC) purposes, the Ohio Supreme Court has ruled. The court also found that the individual sale prices listed on the property transfer forms were representative of the property value even though the properties were part of a bulk sale and included personal property items.

The litigation involved three storage facilities in two separate school districts. These properties were purchased in 2006 as part of a nine-property deal. The seller had acquired the same properties a year earlier from an unrelated party.

An unusual aspect of the 2006 sale was that the president of the selling company was scheduled to take over as the chief executive officer of the purchasing company within two weeks of the sale. This individual also owned a 20 percent interest in one of the storage facilities.

Valuation Issues
The purchasing company argued that the 2005 sale prices should be used for property tax purposes. The 2006 prices were invalid, the company contended, for several reasons. First, the relationship of the selling company’s executive to both companies, as evidenced by the required SEC filing, disqualified the transaction as an arm’s-length sale. Second, the 2006 transaction was a bulk purchase and therefore did not necessarily provide representative individual values for the three properties at issue. Third, the sale price included value attributable to personal property transferred in the sale. The 2006 values for the three properties were higher than the 2005 values by approximately $400,000, $1,635,000, and $1,716,500.

The court stated that for a related-party SEC filing to disqualify a sale as arm’s length, it would need to show that the related parties had a common financial interest in the transaction, for example, if one company had an ownership interest in the other. Although the selling company’s executive did own a percentage of one of the properties, he did not own any of the purchasing company’s stock. Furthermore, he was not, at the time, an officer of the purchasing company and did not exercise control over the purchase decision. Final approval of the transaction was made by the purchasing company’s board of directors.

Allocations Representative
In addressing the company’s bulk purchase claim, the court noted that a portion of the total purchase price was allocated to each of the nine properties in the sales contract. These values were later used on the conveyance-fee forms which are used for property taxation. According to testimony, these values were prepared by the purchasing company’s staff as part of the pre-sale analysis of the deal. Each property was valued by the income approach based on its net operating income, including developing a cap rate and taking into account vacancy loss and the cash flow from rents. Since the analysis was meant to determine what a “reasonable investor” would pay to obtain each property’s income, the court said, the values can be considered representative of each property’s market value.

The court further dismissed the purchasing company’s personal property claim. The company had provided a detailed list of all the personal property transferred in the sale, but no evidence of the personal property value attributable to individual properties. The court noted that self-storage is a real-estate-intensive business because it generates its income based on renting space. Therefore, a value based on an income approach analysis would include very little personal property value, the court said.

(Hillard City Schools Board of Education v. Franklin County Board of Revision, Ohio Supreme Court, No. 2014-Ohio-853, March 11, 2014)

Tax Caps
Another state property tax capping scheme has withstood a constitutional challenge. The New Mexico Supreme Court has ruled that the statute that permits a residential property’s value to reset to market value on a change of ownership—known as tax lightning in New Mexico—is consistent with the state constitution’s property taxation provisions. The decision affirms the appellate court’s determination that the tax cap law was constitutional (see Legal Trends, October 2012).

The New Mexico Constitution gives the legislature the authority to “limit[] the increases in valuation of residential property.” It also permits limitations to be enacted for specific classes of residential property taxpayers but only on the basis of three criteria: owner-occupancy, age, or income. The taxpayer claimed that the statute’s change-of-ownership provision created an unauthorized fourth class of residential property taxpayers based on time of acquisition.

Although the supreme court came to the same conclusion as the appellate court—that the change-of-ownership statute was constitutional—it reasoning differed. The appellate court had determined that the taxpayer was not entitled to the increase limit because the benefit only starts once the taxpayer becomes the property’s owner. The supreme court found that the taxpayer was not entitled to the increase limit because ownership is a characteristic of property that the constitution permits the legislature to treat in different ways.

Ownership is not an attribute of the possessor of property, but rather one of the most fundamental characteristics of the property itself, the court explained. While the constitution limits the legislature’s ability to apply different value increases to three taxpayer classes, it places no similar restrictions on residential properties with different characteristics, the court said.

(Zhao v. Montoya, Supreme Court of the State of New Mexico, Docket No. 33,589, June 30, 2014)
General Discussion List—State Universities and Taxes

Q. Mark Musick, Morgantown, West Virginia
Has anyone dealt with working with universities in your county on paying real estate/property taxes, and has anyone who is receiving some form of contribution dealt with agreements from the university as in the private-public sector? Outside of a payment in lieu of taxes, has there been any titled voluntary contribution agreement?

A. Alan S. Dornfest, AAS, Boise, Idaho
I believe the Lincoln Institute of Land Policy has done some research on the general issue. I’m not aware of any research about the type of agreement. Check its website for info. We did not get this detailed in our last Property Tax Assessment Policies and Practices (PTAPP) survey.

A. Faye Tate, Little Rock, Arkansas
There is litigation pending between the Washington County Assessor’s Office and the University of Arkansas at Fayetteville concerning the tax-exempt status of University-owned commercial properties that are rented or leased to private businesses.

A. Marsha Standish, Stonington, Connecticut
Attached is the link to the Lincoln Institute report [see original AssessorNET post for link].

A. Allan Booth, Newport, Rhode Island
Mark, you should contact the tax assessor (Dave Quinn) in Providence, Rhode Island. Providence has agreements with its colleges independent of the Rhode Island general laws.

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World News
China advances property tax reforms amid slowdown (published August 11, 2014)
by Qin Dexing
Jia Kang, Director of the Research Institute for Fiscal Science under China’s Ministry of Finance, predicts that the cooling off the Chinese property market will encourage authorities to create legislation for a widespread property taxation system by the end of 2016. The article discusses the steps necessary to implement such a system.
For more information, go to: http://www.ecns.cn/business/2014/08-11/128744.shtml.

Greek government red-faced over property tax error (published August 6, 2014)
by The West Australian
Article discusses a large increase in estimated property values used to determine property taxes in a new property tax system being implemented in Greece. Prime Minister Antonis Samaras ordered the finance ministry to revert to last year’s real estate values to avoid further criticism.
For more information, go to: https://au.news.yahoo.com/thewest/business/world/a/24649560/greek-government-red-faced-over-property-tax-error/.

Property Tax Reform
Property tax reform bill draft would consolidate levies, set levy limits for counties and cities (published August 3, 2014)
by Mike Nowatzki, The Jamestown Sun
Article discusses a draft bill in North Dakota that proposes to consolidate various property tax levies in order to simplify the taxing system. Local jurisdictions would then have to prioritize spending across each levy category.

Personal Property Tax
Michigan, Indiana and tax reform (published August 10, 2014)
by John Ketzenberger, President of the Indiana Fiscal Policy Institute, in IndyStar
Article contrasts Michigan’s recent decision to eliminate business personal property tax with Indiana’s efforts to eliminate the tax. The two states compete to attract new business by providing business tax breaks. Elimination of the personal property tax results in lost tax revenue to local jurisdictions. The article focuses on this policy dilemma for Indiana.
For more information, go to: http://www.indystar.com/story/money/2014/08/10/michigan-indiana-tax-reform/13803783/.

Proposal 1 to repeal Michigan tax on equipment approved by voters (published August 6, 2014)
by Paul Egan, Detroit Free Press
Article discusses the voter-approved Proposal 1 measure to eliminate business personal property taxes in Michigan.
For more information, go to: http://www.freep.com/article/20140805/NEWS06/308050226/Proposal-1-personal-property-tax.

Michigan use tax and community stabilization share Proposal 1 (accessed August 5, 2014)
by Ballotpedia
Almanac entry describing details of Michigan Proposal 1 ballot measure passed by voters on August 5, 2014.
For more information, go to: http://ballotpedia.org/Michigan_Use_Tax_and_Community_Stabilization_Share:_Proposal_1_(August_2014).

Loss of Property Tax Revenues
Will airport benefits outweigh property tax losses? (published August 9, 2014)
by Gregory Tejeda, The Times
Article discusses a controversial new airport being built in a south-suburban area near Chicago and the loss of property tax revenue to the local school district because taxable property was purchased by the state as part of the airport project.

State Comparisons
Wisconsin’s tax climate is improving, but still lags behind most neighbors (published August 11, 2014)
by Peter Fricke, The Daily Caller
Article discusses a study by the the National Center for Policy Analysis that compares Wisconsin’s tax system to surrounding states.
For more information, go to: http://dailycaller.com/2014/08/11/wisconsins-tax-climate-is-improving-but-still-lags-behind-most-neighbors/.

Is the tax code driving taxpayers from Wisconsin? (accessed August 12, 2014)
by MacIver Institute
An analysis of Wisconsin taxes.
Low-Cost GIS for Municipal Assessors

David McKittrick

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Throughout history, scientific innovation has consistently migrated from the realm of experts, to the arena of professionals, to the domain of the masses. Geographic information systems (GIS) technology is no exception to this evolutionary pattern, and over recent decades, more and more businesses, organizations, and agencies have been streamlining workflow, improving data management, and realizing the revenue benefits of an efficiently implemented GIS.

Once accessible only to highly trained surveyors and engineers who were prepared to pay a premium price for this technology, GIS has since become a mainstay for professionals in virtually every imaginable field and discipline. GIS technology even permeates the everyday lives of ordinary people through smartphone mapping applications and worldwide social media interactions.

Inevitably, there are those who seek to profit from innovation by claiming that their solution is a must-have, and their inflated prices belie the fact that less expensive and easier-to-use alternatives do exist. For a municipal government facing stringent budgetary constraints, the prevailing message that GIS must be very expensive and requires highly skilled and trained technicians is a significant deterrent to the adoption of this technology. However, low-cost GIS does not mean low-functionality GIS.

There is a perception, sometimes justified, that GIS is an overly complicated discipline requiring a great deal of training and know-how, as well as a considerable financial outlay, to be employed effectively. Call it the Google Earth effect, but the general populace is now more spatially aware—or at least aware of the existence of spatial technology and its usefulness—than at any time in the past. Not satisfied with simply viewing maps, many moderately tech-savvy citizens are delving into the art and science of interactive mapping technology and are reaping the benefits both personally and professionally. Accessible GIS software packages offer an inexpensive and easy-to-use alternative to mainstream GIS offerings.

When asked why GIS is not part of the workflow, assessment offices have three common responses: expense, difficulty of use, and, perhaps surprisingly, relevance or usefulness. This article attempts to address these three points while at the same time demonstrating that there is room for GIS in every assessor’s toolkit.

What Is GIS?

There are many who navigate the often tempestuous waters of higher education in order to answer that question only to emerge more confused than when they enrolled. In keeping with the underlying theme of this article, a straightforward definition is more appropriate. Simply stated, GIS is a tool for managing data in its locational context. Obviously the specific purpose and intended use of a GIS refine this definition, but the underlying premise is the same, regardless of industry or application. As shown in figure 1, low-cost GIS can be used to digitize parcels.

Costs

Successful implementation of GIS technology involves more than simply the purchase of software. There are some reputable freeware GIS applications that on face value are, to state the obvious, free. However, this is not the complete story. In defining GIS, particular attention should be given to the letter S, which stands for system, not, as some have suggested, software. The system encompasses the requisite hardware, data, the user, and so forth, all of which add to the overall cost of the system. So, for instance, if the chosen freeware is deficient in a way that requires a significant amount of work hours to manually process data or the outsourcing of a component of the GIS workflow, any cost saving in the initial software selection is quickly negated.

Figure 1. Digitizing parcels from a scanned and geo-rectified property map
There are cost-saving opportunities for all aspects of the GIS implementation process: hardware, software, data, and staffing and training.

**Hardware**

While many GIS historians might argue that a functioning GIS can be developed without computing technology (location-based data management predates the advent of the personal computer by several centuries if not millennia), in today’s world GIS is a computer-based discipline. Specific hardware requirements vary depending on the volume of data and degree of processing required. For typical assessing applications, these requirements are relatively modest, and in most cases, an off-the-shelf computer is sufficient. In fact, it is very likely that the computer used for day-to-day assessing operations can support the installation and efficient operation of the chosen GIS software. Some aspects of geospatial data management require the use of centralized servers, and if this is the case, there are incremental costs depending on the organization’s needs. However, in the implementation of a GIS, these costs can be kept relatively low with the use of external hard drives and even cloud-based data repositories.

**Software**

As previously noted, GIS software runs the gamut from freeware to highly complex data-processing applications costing thousands of dollars. The decision on the level of investment obviously depends on budgetary constraints but must also factor in the value of the software. An assessment of the options must consider the minimum functional requirements, ease of use, and the support for appropriate data formats. Essential components include

- drawing or digitizing tools
- attribute management capabilities
- querying or filtering functions
- visualization tools
- data export options.

More expensive software typically offers more robust processing tools, but these high-end functions are not usually applicable to the workflow of the assessor, so users may be paying a premium price for tools that they may never need or that are overpriced and marketed as unique.

Conversely, freeware offerings may not offer all the tools needed, and they tend to lack the degree of user assistance or technical support that many novices depend on. The importance of this lack of support for new users cannot be overemphasized. Time is money, and there is no greater waste of time than trying to learn new software without help documentation or a readily available support system. An ideal solution is a middle-of-the-road application that offers a full suite of data-processing tools and complementary support at an inexpensive price. Figure 2 shows an example of middle-of-the-road software used to overlay parcels on high-resolution aerial images.

**Data**

Generically speaking, data refers to the actual contents of the GIS, usually in the form of raster or vector layers. Layers may include base-map imagery, parcels, public works infrastructure, zoning information, or countless other relevant data sets. The practical function of a GIS is often described as the analysis of the overlapping characteristics of these layers. Access to data is often considered a significant obstacle to the development of functioning GIS, although this should not be considered a deterrent because there are numerous free data sources.

In recent years, there has been a significant increase in the availability of public domain data, usually administered by government departments or agencies. Layers of every imaginable type can be downloaded and imported, or they can be streamed directly into the map display of the GIS software using Web Map Service protocols. Spatial layers may also originate in the data files that the office already manages. Applying geographic intelligence to these data may simply involve joining each entry in a database to a feature in an existing layer or geocoding a database of addresses to place them at the proper geographic location. Even low-cost GIS applications provide this level of functionality.

*Figure 2.* Digitized parcels overlaid on high-resolution aerial imagery.
Staffing and Training

Often the single most expensive component of a GIS is the person, or people, required for the development and maintenance of the system. Needless to say, the more complex the system, the more demands on staff. Training can also incur a considerable financial outlay, especially when the software requires an extended period of instruction before it can be effectively used.

Larger agencies or departments may be able to afford a dedicated GIS technician to perform the day-to-day GIS tasks; however, a community with more modest means usually has to depend on existing staff members or outsources for certain GIS operations, which ultimately costs more. Within reason, the goal of the municipal assessor should be GIS self-sufficiency. Depending on others for these services affects workflow, data integrity, and cost. The selection of a software platform should therefore factor in usability as a means for minimizing expense. Figure 3 shows variations in property values in a low-cost GIS system.

Summary

For assessors, GIS software can be a powerful asset in many aspects of the assessment process—from project planning, to data creation and management, to map creation. As is the case with any technology, however, GIS software proves to be a wise investment only if it can be put to use effectively and is not simply left to collect dust on the shelf. If the application is overly complicated or requires a highly trained specialist to operate, it is likely beyond the reach of the average assessor and may prove to be more of a liability than an asset.

The decision to invest in GIS technology may come down to the likelihood of seeing a return on that investment, and after considering the costs as noted above, many local government officials may decide that it’s not worth the risk. Modern GIS products that balance cost, functionality, and usability help to allay these concerns, offer a means for non-GIS professionals to employ GIS functionality in their day-to-day operations, and encourage GIS self-sufficiency.

David McKittrick is the Senior Applications Specialist for Blue Marble Geographics, based in Hallowell, Maine. Blue Marble Geographics produces Global Mapper software, a low-cost mid-range GIS solution.
Left, Andrea Raila and her daughter read *Fair & Equitable* while on a family trip to Stonehedge, in Wiltshire, England. Raila is a former Deputy Member of the Illinois Cook County Board of Review and currently is with the Property Tax Law Firm of Raila & Associates, P.C. She is a 25-year member of IAAO. She won the 2013 Torch Award for Marketplace Ethics sponsored by the Better Business Bureau.

According to Raila, Stonehenge is a prehistoric monument believed to be built anywhere from 3,000 B.C. to 2,000 B.C. It is in the middle of a dense complex of Neolithic and Bronze Age monuments including burial mounds. The site is a place of religious significance and pilgrimage in Neo-Druidry, a religion that promotes harmony and worship of nature, and respect for all beings and the environment. Hence it would presumably be considered a “tax exempt” parcel—for religious purposes as well as obvious other reasons.

Thanks for sharing Andrea!

Above, the President of the Kansas County Appraisers Association Stephen Miles reads F&E with attendees at the KCAA 2014 Annual Business Conference. The conference was held June 22–25, 2014 in Lawrence, Kansas. IAAO was represented at the conference by IAAO President Kim Lauffer, RES.

Right, Paul Bidanset, Statistician/Real Estate CAMA Modeler Analyst for the Office of the Real Estate Assessor, City of Norfolk, reads F&E while attempting to fly fish in the Colorado Rockies. He learned a lot about fly fishing on that trip and eventually caught a fish after he returned home. Bidanset has authored a number of articles for F&E and the IAAO journal.
July 10, 2014

Lisa Daniels, Executive Director
IAAO
314 W 10th St
Kansas City, Missouri  64105-1616

I, Robert Turner, Sr., Chairman of the 2014 Nominating Committee, hereby certify that the following candidates were unanimously approved by the Nominating Committee, July 10, 2014.

W. A. (Pete) Rodda, CAE, RES, President-Elect

Randy Ripperger, CAE, Vice-President
Marsha Standish, Vice-President

Greg McHenry, AAS, Region 1

Roger A. McCarty, Region 2

Tina W. Stone, PPS, Region 3

Committee Chair:  Past-President Robert Turner, Sr.

Date Signed: July 10, 2014
I am running for President-Elect to build upon the significant progress we have made with our education program and fiscal integrity. My primary goal is to provide the very best in educational opportunities and services for our membership. I support IAAO being proactive in promoting the benefits of a fair and equitable property tax program; a continued emphasis on improving our international presence; and a renewed emphasis on the benefits of the IAAO designation program. I am committed to meeting our challenges with positive and effective leadership and represent IAAO to the very best of my ability.

Experience/Qualifications:

- 2013 Vice President
- Executive Board, 2009–2011
- Retired Assessor/Collector, Forsyth County, North Carolina
- Served as the Property Tax Manager of the North Carolina Tag and Tax Together project, a $20 million initiative to bring local property taxes levied on motor vehicles and state vehicle registration fees together into a combined notice and payment system.
- Member of the North Carolina Local Government Commission
- 33 years in the assessment profession
- IAAO member for 31 years
- CAE and RES Designations
- State-Certified Residential Appraiser
- IAAO Instructor
- Distinguished Assessment Jurisdiction Award, 1988
- IAAO Representative, 1996–1997
- Tax Collector Membership Committee (Chair) 2005–2008
- Conference Content Committee, 2007–2008
- Served on Membership Services Committee, Education Subcommittee, and the Jeff Hunt, CAE, Memorial Candidates Assistance Trust Committee
- Past President, North Carolina Association of Assessing Officers and North Carolina Tax Collectors Association
- Old North State Award, Gov. Mike Easley, 2008

Since 1981, I have participated in many levels of involvement in IAAO, from active member to committee member and most recently, Executive Board member. With my experience and knowledge, I am now prepared to provide leadership as an IAAO officer.

My Focus

- Ensure adequate resources are available to expand the opportunities for professional development in order to meet the needs of our members in the areas of educational offerings, instructor training, and professional designations.
- Determine, monitor, and enhance sound fiscal policies. Fiscal stability is critical for IAAO to remain a first class organization and will be a top priority.
- Maintain legal and ethical integrity as well as accountability.

IAAO Leadership Roles

- Executive Board, 2011–2013
- Chair, Education Subcommittee, 2014
- Chair, Professional Designations Subcommittee, 2008–2009
- Chair, Audit Committee, 2012
- Chair, Grading Committee, 2001–present
- Budget Committee, 2013

Education/Professional Development

- Central College, Pella, Iowa—BA, Economics
- IAAO courses, workshops, and forums—over 350 hours
- IAAO Designated Member—Certified Assessment Evaluator (CAE)
- IAAO Senior Instructor
- IAAO Grader
- Iowa Certified General Real Property Appraiser

Professional Experience

- Polk County Assessor, 2014–present
- Polk County Chief Deputy Assessor, 2007–2014
- Polk County Assessor’s Office, 1980–present

Peer Recognition

- IAAO Verne W. Potteroff, CAE, Professional Designee of the Year Award, 2011
- Outstanding Member Award, Iowa State Association of Assessors, 2011

My Commitment to You

I will do my best to ensure the IAAO remains the standard-bearer for excellence in property appraisal, assessment administration, and property tax policy.

I respectfully ask for your support and vote.
For Executive Board Region 1
Greg McHenry, AAS
County Appraiser
Riley County Appraiser’s Office
Manhattan, Kansas

During my 26-year career in the assessment profession IAAO has provided many great opportunities for education, mentoring, and networking. I’ve been blessed by these opportunities and they’ve been crucial to my career development. I hope to give back by putting my experiences to work as a member of the Executive Board.

My goals if elected are:
• Promotion of IAAO to future members and leaders.
• Providing relevant, affordable, and flexible education programs.
• Maintaining IAAO’s position as the preeminent professional and educational organization for our profession.
• Enhanced mentoring opportunities for IAAO members and leaders.
• Fiscal responsibility of IAAO funds.

IAAO Activities
• IAAO Conference Content Committee
• IAAO Local Host Committee
• IAAO Timothy N. Hagemann Memorial Membership Trust Committee
• Specialty Instructor

Local/State Activities
• Kansas County Appraisers Association—Executive Board member, Past President
• Kansas County Appraisers Association Legislative Committee—Chairman and Lobbyist
• Appointed by Director of Property Valuation to serve on statewide New CAMA Review Committee
• Kansas City Chapter IAAO
• Flint Hills Regional Leadership Program—alumni, Board of Trustees

Designations, Certifications, and Awards
• Assessment Administration Specialist (AAS)
• Kansas Registered Mass Appraiser
• IAAO Instructor Certification
• Certificate in Effective Supervisory Skills (Kansas County Government Institute)

Professional Experience
• Riley County Appraiser’s Office, Manhattan, Kansas
  – County Appraiser 2006–present
  – Deputy County Appraiser
  – Business Specialist
• Clay County Appraiser’s Office
  – County Appraiser

Education
Kansas State University, Agricultural Economics

For Executive Board Region 2
Roger Mc Carty
Assessor
Cascade Charter Township
Grand Rapids, Michigan

I am Roger Mc Carty and I am running for a position on the Executive Board. I have belonged to IAAO since 1986 and have served the membership as a State Instructor, State Representative, and Committee Member. I would now like to work for you as a member of the Executive Board.

IAAO is going in exciting new directions. My reason for running for the Board is to be part of the team that guides and supports those endeavors.

In the last few years IAAO has placed an emphasis on reaching out to areas of the world where we have not previously had a presence. IAAO is the premier organization in the property tax field. We have the most knowledge, the best education, and the most capable instructors in the field. We need to continue to expand our outreach.

Many people in IAAO have been working to expand our presence on the web. This includes putting more of our educational material online. Balancing greater availability with maintaining the quality of education is a challenge that we must solve.

I respectfully request your vote for Executive Board Region 2.

Professional Experience/Education
• BA—Michigan Technological University
• WA—Western Michigan University
• Certified as a Michigan Master Assessing Officer (4)
• Michigan Certified Personal Property Examiner
• 23 years at Cascade Township, Grand Rapids, MI, currently as Assessor.
• Formerly Assessor/Building Official for City of Niles, MI

IAAO Activities
• IAAO member since 1986
• IAAO State Representative since 2003
• Member—Instructor Relations Subcommittee, 2010–Present
• Member—Local Host Committee, 2012–2013
• Member—Curriculum Development Special Committee, 2011
• In-state IAAO Instructor, 1991–Present

Awards
• Rosalyn Johnston Award—2013
• David Bone Education Award—MI Assessor Association, 2010

For Executive Board Region 3
Tina Stone, PPS
Property Valuation Specialist II
North Carolina Dept of Revenue
Raleigh, North Carolina

I am currently employed with the North Carolina Department of Revenue as a Property Valuation Specialist II and Personal Property Division Manager. I have 26 years of experience in all facets of property tax. I began my career in the Mapping Division of the Chatham County Tax Office; from there I transitioned into Business Personal Property Appraisal culminating with my appointment to Chatham County Assessor. Throughout my career, I have pursued professional development by earning multiple certifications and obtaining my Personal Property Designation (PPS) from the International Association of Assessing Officers (IAAO). I currently hold several positions within professional organizations such as the North Carolina Association of Assessors, where I serve as Chair of the Conference Committee Cochair. I also currently serve as the North Carolina IAAO Representative and I am a member of the IAAO Ethics Committee. I am also a former member of the IAAO Membership Services Committee.

IAAO Executive Board Membership will allow me to continue my personal and professional growth while allowing me to share my years of experience with IAAO. My years of service within IAAO have afforded me insights regarding membership retention. My main focus will be on what IAAO can do to offer benefits or incentives for current members to renew their membership. As a new generation of potential members is employed in the field of property assessment, IAAO as an organization needs to grow and maintain levels of service and education that will meet the needs of the new generation.

As you can see from my experience in the field, if elected, I will bring an eclectic set of skills that will be helpful in several areas for IAAO.
<table>
<thead>
<tr>
<th>Action</th>
<th>Deadline</th>
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<tbody>
<tr>
<td>Candidate questionnaires must be completed and submitted to the Executive Director for distribution to the Nominating Committee. Candidate profile forms and photographs must be submitted to the Executive Director for inclusion with the official ballots.</td>
<td>Tuesday, July 1, 2014</td>
</tr>
<tr>
<td>Nominating Committee Meeting to plan for any needed candidate interviews. Nominating Committee conducts any needed candidate interviews via telephone.</td>
<td>Prior to Friday, August 1, 2014</td>
</tr>
<tr>
<td>Slate of candidates nominated is certified by the Nominating Committee Chair to the Executive Director and publicized as soon as possible in an IAAO publication. List of candidates selected is posted to the IAAO Website as soon as candidates are notified.</td>
<td>Prior to Friday, August 15, 2014</td>
</tr>
<tr>
<td>Individuals wishing to be nominated by petition must submit completed petitions to the Executive Director within five (5) days of the end of annual conference.</td>
<td>Monday, September 1, 2014</td>
</tr>
<tr>
<td>Election campaign reports must be filed with the Executive Director.</td>
<td>Sunday, December 7, 2014</td>
</tr>
<tr>
<td>Candidates wishing to challenge the election results must transmit challenges to the Executive Director.</td>
<td>Wednesday, December 31, 2014</td>
</tr>
<tr>
<td>Election results shall be certified at the first Executive Board Meeting following the December 31, 2014 challenge deadline or the first meeting after any challenge is resolved. The vote to destroy the ballots occurs.</td>
<td>After December 31, 2014</td>
</tr>
</tbody>
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**Voting Regions**

Executive Board Candidates are placed in one of three positions on the ballot according to their membership situs. The geographic makeup of the three positions is determined by the Nominating Committee, subject to approval by the Executive Board. The geographic makeup is re-examined every five (5) years, to ensure equal representation of members within each geographic area.

**Region 1**
- Alaska, Arizona, California, Colorado, Hawaii, Idaho, Iowa, Kansas, Missouri, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, Wyoming, Alberta, British Columbia, Manitoba, Saskatchewan, Yukon Territory, Australia, China, Guam, Hong Kong, Japan, Korea, Mexico, New Zealand, Philippines, Thailand

**Region 2**
- Connecticut, Illinois, Indiana, Maine, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, Wisconsin, New Brunswick, Newfoundland, Nova Scotia, Ontario, Quebec, Great Britain—United Kingdom, Greece, Iceland, Namibia, Netherlands, Northern Ireland—United Kingdom, Pakistan, Romania, Scotland—United Kingdom, Slovenia, South Africa, South Wales—United Kingdom, Spain, Zambia

**Region 3**
- Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia, Barbados, Virgin Islands
Member Anniversaries

5 Years
Adam D. Bogard, Harris County Appraisal District, Missouri City, TX
Norma J. Brock, Dawson CAD, Lamesa, TX
Sharon K. Halcomb, Franklin County, Brookville, IN
Randi D. Hill, Tulsa County Assessor’s Office, Bristow, OK
Nicole D. Hudson, Delhi Charter Township, Battle Creek, MI
Angela M. Marrama, Town of Maynard Assessor’s Office, Maynard, MA
Gaiana C. Martinez, Osceola County Property Appraiser’s Office, Kissimmee, FL
James Todd Mooney, CMS, Copiah County, Hazlehurst, MS
Brian S. Myers, Davie County, Mocksville, NC
Rebecca W. Richardson, Meade County PVA, Brandenburg, KY
Alaa Shams, NEI GPS, Lafayette, LA
Jamie L. Shepherd, Howard County, Kokomo, IN
Joseph A. Wheeler, Marion County Appraiser’s Office, Ocala, FL
June Wiles, Polk County, Mena, AR

10 Years
Lori D Brown, City of Saginaw, Saginaw, MI
Robert Carver, Esq, Emmet, Marvin & Martin LLP, New York, NY
Sylvia Lopez, Popp Hutcheson, PLLC, Austin, TX
Peggy Martinez, San Juan County Assessor’s Office, Aztec, NM
Clare McNeal, San Juan County Assessor’s Office, Aztec, NM
Tricia L. Petersen, Mecklenburg County, Charlotte, NC
Carla M. Pope-Osborne, Perdue, Brandon, Fielder, Collins & Mott, LLP, Austin, TX
Michael R. Roark, Florida Dept. of Revenue – PTA, Tallahassee, FL
Joseph B. Roy, St Tammany Parish Assessor’s Office, Covington, LA

15 Years
Deanna K. Aspedon, AAS, Sedgwick County Appraiser’s Office, Wichita, KS
Tami K. Botello, Cumberland County Tax Administrator’s Office, Fayetteville, NC
Patricia C. Boze, St Clary County Assessor’s Office, Belleville, IL
Patricia Budd, Ducharme, McMillen & Associates, Mississauga, ON, Canada
Charlene L. Cuthbertson, Information Applications & Solutions Inc., Avon, IN
Victor Stephenson Edwards, III, City of Hampton Assessor’s Office, Hampton, VA
Donald A. Fisher, Pomerooy Appraisal Associates, Inc, Syracuse, NY
Tom D. Flowers, Florida Power & Light Company, Juno Beach, FL
Lee Harris, AAS, Orange County Tax Administration, Raleigh, NC
Nancy L. Hopkins, PPS, Property Assessment Review, Saint Louis, MO
David Kaine Matthews, Macon County, Franklin, NC
Timothy E. Parker, Putnam County Property Appraiser’s Office, Palatka, FL
Katherine L. Perry, Jefferson County Board of Tax Assessors, Louisville, KY
Linda L See, Wichita County Appraiser’s Office, Leoti, KS
Robert E Slavin, Assessment Counseling Services, West Lake Village, CA
Evelyn A Spagnolo, Town of Bristol, Bristol, RI
Irene Tho, City of Winnipeg Assessment Department, Winnipeg, MB, Canada
Gary Townsend, Englander Knabe & Allen, Los Angeles, CA
Susan P. Walsh, Cook County Assessor’s Office, Chicago, IL
Sandra M. Whitaker, Fountain County, Covington, IN
Homer L. Woods, Boyd County, Catlettsburg, KY

20 Years
E Clayton Campbell, Yadkin County, Yadkinville, NC
Erika De Lao, Cook County Assessor’s Office, Chicago, IL
Tammy J. Foley, Clear Creek County, Georgetown, CO
Andre Gravelle, University of British Columbia, Vancouver, BC, Canada
Diane L. Johnson, King County Department of Assessments, Seattle, WA
Page Kutait, Total Assessment Solutions, Glenwood, AR
Steven J. Marks, Franklin County, Pasco, WA
Suzanne McColloch, Winnebago County, Forest City, IA
Steven W. Miles, Douglas County, Lawrence, KS
Kelby J. Moore, Thomson Reuters, South Charleston, OH
W. Paul Overton, RES, Boone County Assessor, Ames, IA

25 Years
Cathy L. Conklin, Town of Clarkstown, New City, NY
Mark R. Davis, O’Keefe, Lyons, & Hynes, LLC, Chicago, IL
Richard W. Finnegan, Finnegan Appraisal and Consulting, LLC, Plymouth, MA
Michael P. Flynn, City of Newton, Newton, MA
Constance S. Holmes, City of Boston Assessing Department, Boston, MA
Clarence J. Jacobs, Jr, CAE, Union, OH
Thomas C. Little, Henrico County Assessment Division, Henrico, VA
Gary A. Martinson, City of Devils Lake, Devils Lake, ND
Laurence May, Louisville, KY
George R. McCormack, Colleton County Assessor’s Office, Walterboro, SC
Portia A. Morris, Nash County Tax Dept., Nashville, NC
Edward F. O’Neil, City of Medford, Medford, MA
Nancy M Pleasant, Louisa County, Louisa, VA
John G. Potter, AAS, Forsyth County Assessor’s Office, Winston Salem, NC
Hendrikus A F Verbrugge, Raadhuis Verbrugge Ltd., Terheijden, Netherlands

30 Years
A. Keith Albertsen, CAE, Douglas County, Alexandria, MN
Richard W. Blackburn, City of Portland, Portland, ME
Samuel J. Guich, CAE, City of Monroe, Monroe, MI
Steven L. Howe, Dauphin County Assessment Office, Harrisburg, PA
Ronald W. Hubbard, RES, Henrico County Assessment Division, Mechanicsville, VA
Randall J. Kincaid, AAS, Las Cruces, NM
Darrel L. Stanard, Stanard Appraisal, Central City, NE
Thomas V. Sweeney, Medfield, MA
Shelley M. Wilson, Ohio Department of Taxation, Columbus, OH

35 Years
Kurt A. Dawson, City of Rochester Hills, Rochester Hill, MI
Rodney A. Hervey, Polk County Assessor’s Office, Des Moines, IA
Robert A. Jabbar, CAE, City of Richmond Assessor’s Office, Richmond, VA
Scott E. Labus, Cedar Rapids City Assessor’s Office, Cedar Rapids, IA
Laurence Street, CAE, RES, Birmingham, AL

40 Years
Paul R. Covelli, Kissimmee, FL
Paul C. Knutson, RES, Rice County, Faribault, MN
Daniel P. Muthard, Lexur Appraisal Services, Tipp City, OH
Ralph F. Neely, CAE, Department, Boston, MA
Laurence May, Louisville, KY

Congratulations to all those celebrating their anniversaries!
In August, I attended the 70th Annual Educational Conference of the Oklahoma Tax Commission Ad Valorem Division and the Annual Conference of the Tennessee Chapter of IAAO. Both these events were a valuable way to keep in touch with members from those areas. In addition, Vice-President Pete Rodda attended AI Connect, the Appraisal Institute’s annual meeting.

Next month, I will provide an overview of recent IAAO accomplishments as presented at the Annual Conference in my President’s State-of-IAAO report.

See you in Sacramento!!

Kim Lauffer

Right, President Lauffer addresses the Tennessee Chapter of IAAO at its Annual Conference. Below (l to r), Bryan Kinsey, James Weaver, CAE, and Kim Lauffer sit front and center during a Q&A session at the conference.

CALL FOR ARTICLES AND WEBINARS

- Automated Valuation Models
- Burden of proof
- Safety procedures in the field
- Nonprofits
- Contaminated land
- Data sharing initiatives
- Public relations
- Tax policy/Tax reform
- Green buildings & systems
- Alternative energy
- Equity appeals (Texas)
- FOIA requests
- Historical property
- Hospitals/surgical centers
- Mineral rights
- Public relations
- Open source resources
- Tax collection
- Disaster response
- Procedure improvements

To submit article ideas contact Chris Bennett, bennett@iaao.org. • To submit webinar ideas contact Robin Parrish, parrish@iaao.org.
**Education Calendar**

**By Location**

**Alabama**  
101—Fundamentals of Real Property Appraisal  
Montgomery, September 15–19, 2014  
The Center for Governmental Services sponsor the offerings listed above. For more details, contact Sackey Kweku 816/881-3307.

**Arizona**  
600—Principles & Techniques of Cadastral Mapping  
Phoenix, October 6–10, 2014  
300—Fundamentals of Mass Appraisal  
Phoenix, November 3–7, 2014  
The AZ Chapter of IAAO sponsors the offerings listed above. For more details, contact Tim Girogan 602/372-9218.

**Arkansas**  
300—Fundamentals of Mass Appraisal  
Little Rock, November 17–21, 2014  
The Assessment Coordinator Department sponsors the offerings listed above. For more details, contact Cleta Hardy 501/324-9104.

**Florida**  
101—Fundamentals of Real Property Appraisal  
Lake Mary, December 8–12, 2014  
300—Fundamentals of Mass Appraisal  
Lake Mary, December 8–12, 2014  
600—Principles & Techniques of Cadastral Mapping  
Lake Mary, December 8–12, 2014  
102—Income Approach to Valuation  
Tallahassee, March 9–13, 2015  
201—Appraisal of Land  
Tallahassee, March 9–13, 2015  
The FL Department of Revenue, Property Tax Oversight sponsor the offerings listed above. For more details, contact Meghan Miller (727) 588-6856 or via e-mail — millerm@dor.state.fl.us or http://dor.myflorida.com/dor/property/training.

**Indiana**  
102—Income Approach to Valuation  
Huntington, September 15–19, 2014  
151—National USPAP  
Valparaiso, September 30–October 2, 2014  
300—Fundamentals of Mass Appraisal  
Sellersburg, October 20–24, 2014  
400—Assessment Administration  
Indianapolis, December 1–5, 2014  
The Indiana Chapter of IAAO sponsors the offerings listed above. For more details, contact Ginny Whipple 812/593-4782.

**Kansas**  
191—National USPAP 7-Hour Update  
Wichita, September 29, 2014  
311—Residential Modeling Concepts  
Wichita, October 13–17, 2014  
The Sedgwick County Appraisers Office sponsors the offering listed above. For more details, contact Todd Reynolds 316/660-9277.

**Kentucky**  
101—Fundamentals of Real Property Appraisal  
Frankfort, September 15–19, 2014  
The KY Chapter of IAAO sponsors the offering listed above. For more details, contact Melissa Klink 502/564-7191.

**Massachusetts**  
312—Commercial/Industrial Modeling Concepts  
Needham, November 3–7, 2014  
The Massachusetts Chapter of IAAO sponsors the offering listed above. For more details, contact Gary McCabe 617/733-4165.

**Minnesota**  
102—Income Approach to Valuation  
Plymouth, September 15–19, 2014  
311—Residential Modeling Concepts  
Plymouth, October 20–24, 2014  
102—Income Approach to Valuation  
Plymouth, November 17–21, 2014  
The MN Association of Assessing Officers sponsor the offerings listed above. For more details, contact Bob Wilson 952/826-0426.

**Mississippi**  
452—Fundamentals of Assessment Ratio Studies  
Oxford, October 22–24, 2014  
The Mississippi State University Extension Center sponsors the offerings listed above. For more details, contact Jason Camp 662/325-3741.

**Missouri**  
402—Tax Policy  
Blue Springs, October 6–10, 2014  
The KC Chapter of IAAO sponsor the offerings listed above. For more details, contact Sackey Kweku 816/881-3307.

**Nebraska**  
976—Public Relations & Customer Service  
North Platte, September 17, 2014  
150—Mathematics for Assessors  
North Platte, September 18–19, 2014  
260—Valuation of Agricultural Land  
Gering, October 1–3, 2014  
452—Fundamentals of Assessment Ratio Studies  
North Platte, October 15–17, 2014  
976—Public Relations & Customer Service  
Lincoln, October 22, 2014  
150—Mathematics for Assessors  
Lincoln, October 23–24, 2014  
354—Multiple Regression Analysis for Real Property Valuation  
Lincoln, November 6–7, 2014  
The Department of Revenue, Property Assessment Division sponsor the offerings listed above. For more details, contact Grace Willnerd 402/471-5982.

**North Carolina**  
300—Fundamentals of Mass Appraisal  
Chapel Hill, January 26–30, 2015  
The School of Government sponsor the offering listed above. For more details, contact Carolyn Sand's Boggs 919/966-4157.

**Ohio**  
201—Appraisal of Land  
Moraine, October 27–31, 2014  
191—USPAP 7-Hour Update  
North Canton, November 3, 2014  
The Ohio Ad Valorem School sponsor the offering listed above. For more details, contact Robert Graham 330/393-2997 or OhioAdValorem@neo.rr.com.

**Tennessee**  
311—Residential Modeling Concepts  
Knoxville, November 17–21, 2014  
600—Principles & Techniques of Cadastral Mapping  
Germantown, November 3–7, 2014  
201—Appraisal of Land  
Brentwood, November 17–21, 2014  
The Comptroller of the Treasury, Division of Property Assessments sponsor the offering listed above. For more details, contact James Woodyard 615/401-7789 or Cristi Moore 615/401-7774.
Texas
400—Assessment Administration
Austin, October 6–10, 2014
101—Fundamentals of Real Property Appraisal
Austin, October 13–17, 2014
151—National USPAP
Houston, October 13–14, 2014
191—National USPAP 7-Hour Update
Houston, October 15, 2014
300—Fundamentals of Mass Appraisal
Austin, November 17–21, 2014
331—Mass Appraisal Practices and Procedures
Houston, November 3–7, 2014
452—Fundamentals of Assessment Ratio Studies
Houston, November 10–12, 2014
102—Income Approach to Valuation
Austin, December 8–12, 2014
112—Income Approach to Valuation II
Houston, December 8–12, 2014
The Texas Association of Appraisal Districts sponsor the offerings listed above. For more details, contact Doris Koch 512/467-0402.

Vermont
101—Fundamentals of Real Property Appraisal
El Paso, December 1–5, 2014
The El Paso Central Appraisal District sponsors the offering listed above. For more details, contact Jewel Reinhardt 915/780-2015.

Wisconsin
311—Residential Modeling Concepts
Wauwatosa, October 27–31, 2014
WAAO sponsors the offering listed above. For more details, contact Paul Koller 262/797-2461.

Wyoming
252—Valuing Property Affected by Environmental Contamination
Casper, September 17–19, 2014
101—Fundamentals of Real Property Appraisal
Casper, September 22–26, 2014

201—Appraisal of Land
Cheyenne, October 20–24, 2014
The Wyoming Department of Revenue sponsors the offerings listed above. For more details, contact Alan Lemaster 307/777-3450.

BY COURSE

Course 101—Fundamentals of Real Property Appraisal
September 15–19, 2014, Alabama (Montgomery)
September 15–19, 2014, Kentucky (Frankfort)
September 22–26, 2014, Wyoming (Cheyenne)
October 13–17, 2014, Texas (Austin)
December 1–5, 2014, Texas (El Paso)
December 8–12, 2014, Florida (Lake Mary)

Course 102—Income Approach to Valuation
September 15–19, 2014, Minnesota (Plymouth)
September 15–19, 2014, Indiana (Huntington)
September 29–October 3, 2014, Vermont (White River Junction)
November 17–21, 2014, Minnesota (Plymouth)
December 8–12, 2014, Texas (Austin)
March 9–13, 2015, Florida (Tallahassee)

Course 112—Income Approach to Valuation II
December 8–12, 2014, Texas (Houston)

Workshop 150—Mathematics for Assessors
September 18–19, 2014, Nebraska (North Platte)
October 23–24, 2014, Nebraska (Lincoln)

Workshop 151—National USPAP
October 7–12, 2014, Indiana (Valparaiso)
October 13–14, 2014, Texas (Austin)

Workshop 191—National USPAP 7-Hour Update
September 29, 2014, Kansas (Wichita)
October 15, 2014, Texas (Houston)
November 3, 2014, Ohio (Canton)

Course 201—Appraisal of Land
October 20–24, 2014, Wyoming (Cheyenne)
October 27–31, 2014, Ohio (Marion)
November 17–21, 2014, Tennessee (Brentwood)
March 9–13, 2015, Florida (Tallahassee)

Workshop 252—Valuing Property Affected by Environmental Contamination
September 17–19, 2014, Wyoming (Cheyenne)

Workshop 260—Valuation of Agricultural Land
October 1–3, 2014, Nebraska (Gering)

Course 300—Fundamentals of Mass Appraisal
October 20–24, 2014, Indiana (Sellersburg)
November 3–7, 2014, Arizona (Phoenix)
November 17–21, 2014, Texas (Austin)
November 17–21, 2014, Arkansas (Little Rock)
December 8–12, 2014, Florida (Lake Mary)
January 26–30, 2015, North Carolina (Chapel Hill)

Course 311—Residential Modeling Concepts
October 13–17, 2014, Kansas (Wichita)
October 20–24, 2014, Tennessee (Knoxville)
October 20–24, 2014, Minnesota (Plymouth)
October 27–31, 2014, Wisconsin (Wauwatosa)

Course 312—Commercial/Industrial Modeling Concepts
November 3–7, 2014, Massachusetts (Needham)

Course 331—Mass Appraisal Practices and Procedures
November 3–7, 2014, Texas (Houston)

Workshop 354—Multiple Regression Analysis for Real Property Valuation
November 6–7, 2014, Nebraska (Lincoln)

Course 400—Assessment Administration
September 15–19, 2014, Kansas (Wichita)
October 6–10, 2014, Texas (Austin)
December 1–5, 2014, Indiana (Indianapolis)
Course 402—Tax Policy
October 6–10, 2014, Missouri (Blue Springs)

Workshop 452—Fundamentals of Assessment Ratio Studies
October 15–17, 2014, Nebraska (North Platte)
October 22–24, 2014, Mississippi (Oxford)
November 10–12, 2014, Texas (Houston)

Course 600—Principles & Techniques of Cadastral Mapping
October 6–10, 2014, Arizona (Phoenix)
November 3–7, 2014, Tennessee (Brentwood)
December 8–12, 2014, Florida (Lake Mary)

One-Day Forum 976—Public Relations & Customer Service
September 17, 2014, Nebraska (North Platte)
October 22, 2014, Nebraska (Lincoln)
The GIS/CAMA Technologies Conference educational program is developed from submissions received through the Call for Presentations. The 2015 Conference Planning Committee welcomes the submission of papers, complete sessions, discussion panels, and lightning talks. Presentation topics are not limited to suggested topics. All abstract submissions will be reviewed and considered regardless of topic.

Presentations that market specific products and services are not acceptable. Abundant exhibit and sponsorship opportunities are available during the conference.

Accepted presenters must submit either a formal paper (preferred) or a presentation with notes (e.g., PowerPoint/Prezi) during the conference for inclusion in the proceedings. The session moderator will collect papers and presentations on a thumb drive.

Suggested Topics
GIS Technologies
Integrating GIS & CAMA Data (object-level/sub-parcel data possibilities)
Using Assessor’s CAMA Data and GIS for Emergency Planning
Creating and Analyzing Building Sketch Data
Parcel/Cadastral Mapping
Using GIS for Subparcel Inventory Valuation
Interagency Data Sharing and Cooperation

Acceptance as a presenter does not register you for the conference—registration fees are required.

For additional information, go to IAAO.org under Events→GIS/CAMA Conference.

Submit abstracts online at http://www.urisa.org/forms/gis-cama-abstract-submission.

The GIS/CAMA Technologies Conference is sponsored by the International Association of Assessing Officers and the Urban and Regional Information Systems Association.
**Calendar of Events**

**Minnesota Association of Assessing Officers**
Annual Fall Conference  
September 21–24, 2014  
Duluth, MN  
www.mnmmao.org

**Iowa State Association of Assessors**
Annual Fall School and Conference  
September 28–October 1, 2014  
Desmoines, IA  
www.iowa-assessors.org

**Institute of Revenues Rating & Valuation (IRRV)**
Annual Conference and Exhibition  
October 5–10, 2014  
Telford, England, United Kingdom  
www.irrv.net

**Los Angeles County Chapter of IAAO**
Fall Seminar  
October 8, 2014  
Los Angeles, CA  
http://www.iaaola.org/IAAO-LA_Seminars.php

**Saskatchewan Assessment Appraisers Association**
Annual Workshop and Annual General Meeting  
October 6–8, 2014  
Regina, Canada  
http://www.saskaaa.ca/

**Arizona Department of Revenue and Arizona Association of Assessing Officers**
Arizona Tax Conference  
October 8–10, 2014  
Tucson, AZ  

**Virginia Association of Assessing Officers**
Annual Conference  
October 9–10, 2014  
Norfolk, VA  
http://vaao.org

**Society of Professional Assessors and International Property Tax Institute**
SPA 50th Anniversary Celebration  
October 24–25, 2014  
Omni Providence, Providence, RI  
www.societyofassessors.org

Submit event information with name, date, place, and contact information to bennett@iaao.org.
When You Share the Time, You Share the Tax Burden—Valuation of Time Shares

Noon–2:00 pm CDT • October 15, 2014
David Boisvert

This webinar will explore the three valuation methods as applied to Timeshare Properties. We will compare the general results when applying these methodologies. Finally, we will look at the Arizona Revised Statutes which have defined valuation methodology for timeshares. A few other takeaways from the webinar which effect the valuation are the Principle of Supply and Demand, location, amenities and rent ability.

From this webinar you will learn

- Transaction markets for various markets and property type.
- Timeshares are unique ownership of real property.
- The location affects the supply and demand principle.
- The management entity is required to provide information annually to the assessor’s office.
- There is a penalty if the information is not submitted.
- Arizona values timeshares are based on the income approach.
- The amenities associated with the timeshare influence the market.

Most webinars earn 2.0 continuing education credits

Visit IAAO.org Marketplace for all available webinars.

Free webinars are available for download at IAAO.org under Webinars/Past Webinars
In Memoriam

Jack E. Mayes

Jack E. Mayes, 82, of Charlotte, North Carolina, passed away on Wednesday, August 6, 2014.

Mayes joined IAAO in 1967 and was involved for many years on various committees and with writing and teaching in the education program. He served on the IAAO Executive Board from 1989 to 1991. Mayes was named recipient of the Clifford B. Allen Most Valuable Member Award in 1988 and the Kenneth J. McCarren Award in 1986. He was employed by the Mecklenburg County Tax Office for 35 years, and was an active member of the North Carolina Association of Assessing Officers serving in multiple leadership positions.

Those close to Mayes remember him as an enthusiastic and dedicated member. He was very important to many in the profession, especially those in North Carolina. He was a mentor and role model who will be missed.

Mayes is survived by his wife, daughter, and son. A funeral service was held on Saturday, August 9, at Northside Baptist Church in Charlotte, North Carolina, where Mayes was a member for 51 years. Memorial donations may be made to Samaritans Purse, PO Box 3000, Boone, NC 28607, or to Gospelink, PO Box 4299, Lynchburg, VA 24502.

IAAO Publications

- **Fundamentals of Mass Appraisal**
  This volume contains everything you need to know to develop a mass appraisal system, build and calibrate models, and conduct a revaluation.

- **Property Assessment Valuation, Third Edition**
  An introductory text on assessment administration and basic appraisal principles.

- **Fundamentals of Tax Policy**
  This text explores concepts and philosophy of taxation, underlying systems for taxation, and effects of taxation.

- **Assessment Administration**
  This book covers the three pillars of IAAO: administration, tax policy, and mass appraisal. It provides the information needed to set up and manage a successful assessor’s office and understand basic principles of an ad valorem system.

- **Fundamentals of Industrial Valuation**
  This text provides a basic understanding and overview of the procedures and practices necessary to appraise industrial properties.

  This practical guide has been written to assist assessors, candidates for the Assessment Administration Specialist (AAS) designation, and jurisdictions seeking the Certificate of Excellence in Assessment Administration. It also can be used to document best practices when examining various office procedures. In the fourth edition the chapter on mapping has been updated.

Visit the IAAO Marketplace at IAAO.org to find out more about IAAO publications.
William Parrish Simmons, CMS, received the Cadastral Mapping Specialist designation in June 2014. Simmons serves as GIS Project Manager for the Office of the Assessor of Real Estate for the City of Richmond, Virginia. He has held that position for over seven years. Simmons began mapping with ink on mylar in Tampa, Florida. He has over 20 years of GIS mapping experience and received a GISP certification in 2005. Simmons has bachelor’s and master of arts degrees from the University of South Florida. He joined IAAO in 2010.

Stuart Staples, AAS, received the Assessment Administration Specialist designation in June 2014. Staples serves as a Senior Commercial Appraiser for Henrico County in Henrico, Virginia. He has held that position for 18 years and was previously a real estate appraiser in Hanover County, Virginia. Staples holds a bachelor’s degree in American history from Lynchburg College. He briefly taught high school social studies at Brookville High School in Lynchburg, Virginia. Staples has served as President for the Stony Point Elementary School and as Civic Association President for Kingsley Association. Staples joined IAAO in 1993.

Laurie L. Allen, CMS, received the Cadastral Mapping Specialist designation in July 2014. Allen serves as the Office Manager for the Pike County Assessor’s Office in Magnolia, Mississippi. She has held that position for three years and previously served as Deputy Assessor for Pike County. Allen joined IAAO in 2014.
This year, 2014, marks the 80th Anniversary for IAAO. It doesn't seem like it's been five years since we were celebrating the notable 75th Anniversary in Louisville, Kentucky. At our recent conference in Sacramento we commemorated the 80 years with a number of events in the exhibit hall. Hopefully you noticed the recent timelines that we've put together and published online and in this magazine, highlighting the decades of IAAO. We'll continue to post them through the end of the year, so if you missed them, I encourage you to take a walk down memory lane!

The most recent timeline represents the ten years that I have been with IAAO, 2004-2014. We've all heard it proclaimed "there's never a dull moment." In the case of IAAO, I believe I can attest to the truth of that statement. In ten years it seems we've become a different organization; holding on to those traditions and accomplishments that serve us well; letting go of the things that no longer bring the return that they should; and introducing new ideas and programs nearly as quickly as they can humanly (or technologically) be implemented. Moreover, it seems that the more we do, the more there is still to do.

For inspiration in writing this column (which had to be written in very early August) I went to the article that I'd written for Fair & Equitable ten years ago. At the time I had been on the job less than a month and penned that column just after the 2004 International Conference in Boston. I can easily repeat here what I said then, that "Every IAAO member that I've had the pleasure of meeting has been kind and gracious and very willing to help." Ten years later, it is still true. IAAO holds on to a tradition of volunteerism that is rare these days. The list of those members who carve out time in their extremely busy daily lives in order to serve on a committee, run for office, take a leadership role, or even just to help a colleague they have never met is very gratifying.

Ten years ago our move to a new world headquarters in Kansas City was still in the planning stages. We had 14 people working in the Chicago office, and one-half of those were temporary workers. The Executive Board had selected Kansas City some months earlier, I had been hired and temporarily relocated from Kansas City to Chicago, and a world of details would need to come together to purchase a building, hire a staff, wind down Chicago operations, and begin anew in Kansas City. To say that it all worked like clockwork might be putting rose-colored glasses on history, but we handled one challenge at a time. By all accounts, it's been a good move for this organization.

The move to Kansas City also represents the first time in history that IAAO has owned its headquarters building. The Adler Building, built in 1908, was a complete remodeling job. The four-story brick shell needed everything imaginable, and the wisdom of the Executive Board and site selection committee resulted in also purchasing a small parking lot, surely one of the wisest investments in a metropolitan downtown area. Workmen were putting the finishing touches on the full remodel when the moving trucks pulled up to the doors in June 2005. Since that time we've finished the board room, fenced and gated the parking lot, and generally made a home for ourselves at 314 West Tenth Street in Kansas City, Missouri. Some of the greatest memories of the past ten years have all taken place here—the move in with the new staff, the staff Halloween and Christmas celebrations, the parking lot barbecue, the Grand Opening event in November of 2005, and the mortgage-burning party in conjunction with a number of our volunteer leaders. Most importantly for IAAO members, owning the building free and clear and eliminating a 20-year mortgage in a little over five years has given us the freedom to invest in many programmatic the organization, such as rewritten and redesigned courses, new textbooks, a new logo and website, and many other features and benefits of membership.

Whether we piece together the past 10 years or the past 80 years, what I mentioned to you in 2004, in my very first article, is still true today:

"It is my fondest desire that IAAO reach its full potential. While recent years have been marked by budget challenges, and the difficult decision to leave Chicago, IAAO now has the opportunity to move forward in a very positive way.

So, why this particularly nostalgic column, you ask? It's true we're celebrating IAAO's 80th anniversary and my own tenth year with the organization, but it also marks my departure from IAAO. After 34 years in the workforce and 28 years in nonprofit I feel I'm being drawn in another direction. Please know that the Executive Board of IAAO has the search for my replacement well in hand, and I'm sure they will choose a candidate who will care about this organization, the staff and the members, as I have. I also know the new Executive Director will come to have the deep respect for this very difficult thing you do of administering the property tax. For a job that dates back to biblical times, the respect that is due seems elusive. Rest assured that the staff of IAAO understands what you encounter on a day-to-day basis; we have a tremendous amount of respect for each and every one of you.

It has been an honor to serve you these ten years. I have met a number of people who I know will be friends for life. I also believe a great deal of progress has been made, and I know that IAAO is on a path of success that will propel the organization well into the future. I encourage you to continue to support the organization, seek out leadership opportunities, and allow this organization to support you in your professional quest for excellence.

Sincerely yours,
Lisa Daniels
IAAO Executive Director
Always there. Tyler has been empowering property assessment and tax professionals across the U.S. and Canada to provide software and services that blend innovative functionality and reliable performance, facilitate fair and equitable property values and improve workflow for the efficient, uniform administration of tax laws. Email us at at.sales@tylertech.com or visit www.tylertech.com to learn more.