



# ILLINOIS GIS NOTES

THE NEWSLETTER OF THE ILLINOIS GIS ASSOCIATION



## ILGISA GIS Training Event in Southern Illinois

*Bill Faedtke and Shelley Silch*

It is with great pleasure that we report a very successful one-day event that was held in Southern Illinois (Kaskaskia College, Centralia, IL) on August 10th. The event was sponsored by ILGISA and Kaskaskia College (KC). Current ILGISA members attended the event, and we signed up quite a few new members. The day started with Bill Faedtke giving a great presentation entitled, "State of GIS in Illinois." Participants were invited to choose from two morning workshops: "Manager's Talk" by Mike Rudibaugh and "GIS and Crime Analysis: Red Zone Neighborhood" by Micah Williamson and Douglas Ward. Two afternoon workshops were presented: "Introducing Development of a Basic Web Map Using the ESRI JavaScript API" by Chris Sergent and "Just the Basics: An Introduction to Database Concepts" by Chris McGarry. The facilities provided by KC were beautiful and plenty of room is available to grow the event further. The feedback received from the attendees included suggestions to repeat the training on a quarterly, semi-annually or annual basis. Attendees also enthusiastically expressed their willingness to actively participate in ILGISA's efforts to develop a maintainable, statewide GIS resources inventory and data standards.

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## COGITATIONS

from your President

By Mark Toolson

Change. The more things change the more they remain the same. Change is for the best. Change is the only constant. A change will do you good. We've all heard these before, and how about a few memorable quotes.

*A change is as good as a rest.*  
– Mary Poppins

*He who rejects change is the architect of decay. The only human institution which rejects progress is the cemetery.*  
– Harold Wilson

*It is not necessary to change. Survival is not mandatory.*  
– W. Edwards Deming

*When we are no longer able to change a situation, we are challenged to change ourselves.*  
– Victor Frankl

*Change is inevitable – except from a vending machine.*  
– Robert C. Gallagher

*Just because everything is different, doesn't mean anything has changed.*  
– Irene Peter

*If you're in a bad situation, don't worry it'll change. If you're in a good situation, don't worry it'll change.*  
– John A. Simone Sr.

*All change is not growth, as all movement is not forward.*  
– Ellen Glasgow

*Things do not change, we change.*  
– Henry David Thoreau

*If you want to make enemies, try to change something.*  
– Woodrow Wilson

*I put a dollar in one of those change machines. Nothing changed.*  
– George Carlin

OK, so perhaps I went a little overboard with these change quotes. But I think you get the point. Change is going to happen whether we like it or not, and inevitably we will like it while we will not. A perfect example of this is illustrated above. With the relatively recent change of easily accessing the internet with a mobile phone, I can sit here in a hotel room, avoid paying the hotels exorbitant rates for internet access, and find within moments all the quotes about change I could ever want. Yet, I found so many so quickly that I was unable to narrow the selection to just a couple and now you've had to read them all, (i.e. we will like it while we will not). It is this idea that we encourage change while simultaneously struggling to accept it that I believe is inescapable. And so it is with ILGISA.

The idea mentioned above applies almost perfectly to our current technologies. In fact it is almost cliché to speak of our ever improving electronic gadgets as an example of change. The rate and consistency of advancement with our gadgets is now such that we not only accept but expect significant if not wondrous improvements in a year or less. One could pause to wonder if real change could now only be observed if this pattern of rapid advancement suddenly ceased. Yet however you choose to observe what is happening around us, it is clear that new technologies are and will be all around us.

As I write today, this couldn't be clearer in our field than with the cloud. I am writing these cogitations from a hotel room while attending the Illinois Digital Government Summit, (a conference for folks employed within our state in public sector information technologies). The "cloud", be it private, public, community, or hybrid, is the topic of multiple presentations and sessions. Some mention of or reference to the "cloud" can be seen at a great majority of vendor booths. I am not going to even begin to attempt to explain what the "cloud" is in this note, (for numerous reasons, not the least of which being I could stand to learn a great deal more about it myself), but it certainly

deserves to be noticed how appropriate the timing is for this fall's ILGISA conference theme being "GIS in the Cloud". It is clear that anyone in our field planning to continue with a career path in GIS more than another year or two will likely be dealing with GIS in the cloud. I am thrilled that our members have the opportunity at our Fall conference to begin to educate themselves about the relevance of the cloud to our field.

The idea mentioned above also applies to people, and so too our association. People move on, this is inevitable. While it can be difficult to see experience and wisdom move on with the individuals they belong to, the loss is balanced by the gain of fresh thoughts and new ideas that come with new faces. I believe it is the continued influx of fresh thoughts and ideas that will keep our association vibrant. This belief was shared by the founders of our association when they established term limits for its Directors, thereby assuring a continued stream of new ideas into the association. The next year for ILGISA will see a new President, President-Elect, 3 new Directors, and a new Executive Director. I for one am excited to see where so many new ideas will take our association, and I am confident that whatever direction it may be will strengthen our association and benefit all of our members.

Continuity gives us roots; change gives us branches, letting us stretch and grow and reach new heights. – Pauline R. Kezer

I look forward to seeing the new heights attained by our association over the coming year, and with the help of so many members that have yet to even consider involvement, the years to come!

Mark Toolson

## Calendar of Events

### October

**18-19** ILGISA Fall Conference.  
Northern Illinois University, Naperville,  
Naperville, IL.

### November

**10** ILGISA Webinar, "Pinpointing  
Addresses in Will County" by Greg  
Johnson, GISP

**10-12** West Lakes Regional  
Division of the Association of  
American Geographers Annual  
Meeting. DePaul University,  
Chicago, IL.

### April

**18-19** ILGISA Spring Conference.  
I-Hotel, University of Illinois,  
Champaign, IL.

**22-26** Mid-America GIS Consortium  
Conference. Westin Crown Center,  
Kansas City, MO.

## GIS Notes from the Editor



As the season changes from summer to fall, Mother Nature provides subtle hints on the landscape that encourage us to reflect on the passage of time. Like the seasons, change is an inevitable part of the GIS profession. Software and hardware are continuously evolving, new methods and algorithms are developed, professional organizations and certifications are established, and even our perspectives on the field as GIS professionals may evolve as we advance in our careers. Numerous articles in this issue of *GIS Notes* give evidence of how rapidly our field is changing during these exciting times. Michael Aumiller, a former student of mine, reflects on how his view of GIS has changed from his time as a student to his current role as a GIS professional. Bill Faedtke reports on the recent dissolution of the American Congress on Surveying and Mapping (ACSM), a long-standing association in the field. I hope you will agree that ILGISA remains at the forefront of ongoing changes in the field, and through avenues such as *GIS Notes* we may share these cutting edge developments with each other. Be sure to check out articles in this issue that highlight exciting new ILGISA initiatives such as the recent GIS event in southern Illinois, efforts to develop GIS standards in the state, the upcoming schedule of webinars, the association's expanded use of social media, and the "GIS without Borders" theme for the upcoming fall conference.

As always, we appreciate your comments and suggestions.

Best Regards, John Kostelnick, Editor, *GIS Notes*  
[jkostelnick@ilstu.edu](mailto:jkostelnick@ilstu.edu)



## 2011 ILGISA FALL CONFERENCE UPDATE

*Amanda Ault and Curt Abert*

currently works as Principal Architect at Microsoft's Bing Mobile.

Both conference days include a range of workshops and sessions that are designed to expand our understanding of GIS in a shifting technology landscape. New this year is an application showcase - a special session where you and your colleagues can demonstrate your homegrown GIS applications. We will also be continuing the Lightning Talks that were introduced last year - you can share a great idea with your colleagues in just 5 minutes and a few slides!

The conference will be held on October 18 and 19, 2011 on the Northern Illinois University campus in Naperville, Illinois. We would like to extend our deep appreciation to our conference exhibitors. We would especially like to thank our Silver sponsor - GIS Solutions, our Bronze sponsor - Clifford-Wald, and our Break sponsors - Positioning Solutions Company and Wolpert. We also thank you for investing your time and energy to keep the Illinois GIS community up-to-date and inspired to embrace the latest technology. Submissions for lightning talks, presentations, posters, and awards will be accepted at [www.ilgisa.org](http://www.ilgisa.org) through August 26.

The theme of the ILGISA 2011 Fall Conference is "GIS Without Borders." We are excited to welcome Steve Coast as our keynote speaker. Steve founded OpenStreetMap, a collaborative project to create an editable map of the world, and



## Congratulations to New GISP's!

Congratulations to the following individuals who have obtained their GISP Certification since August 2010. **Welcome to ILGISA!**

Sharie Heller	Geospatial Analyst/Geoint Analyst
Peter Siczewicz	
Carmella Burdi	GIS Processor, DuPage County
Pengyi Li	Senior GIS Developer
Justin Nettleton	GIS Technician, Mc Lean County
Lisa Graff	GIS Team Manager, University of Illinois at Urbana-Champaign
Eric Marquardt	GIS Project Manager
Edward Rudd	GIS Manager, Robinson Engineering Ltd
Matt Williams	GIS Specialist, Illinois State Water Survey
Emily Yates	Seed Bank Coordinator/Conservation GIS Lab Mgr., Chicago Botanic Garden

## Mid-America GIS Consortium (MAGIC) Update

*Shelley Silch, MAGIC Liaison*

The Mid-America GIS Consortium (MAGIC) Clearinghouse Committee was established for the sole purpose of facilitating progress and growth among state GIS data clearinghouses in order to enhance statewide and national initiatives and better serve local, state, and national GIS communities. The primary activity of this group is to organize an annual summit for state GIS clearinghouse staff and strategic partners. Additionally, the Clearinghouse Committee hopes to expand the technical capabilities of state clearinghouses through the open exchange of information regarding successful programs and projects, strategic plans and standards, technical architecture, and the like.

The 2011 MAGIC Clearinghouse Summit was held August 3-4 in Des Moines, Iowa. Jane Domier, Cartographer with the Illinois State Geological Survey, Prairie Research Institute at the University of Illinois at Urbana-Champaign represented Illinois along with Shelley Silch, USGS Geospatial Liaison for Illinois. Presentations about State Clearinghouse activities were provided by each of the state representatives. Further discussions and presentations were provided on subjects, including: leveraging cloud services, utilizing ArcGIS.com for GIS data dissemination, The National Map Viewer updates, International Charter & USGS emergency response activities, Missouri Spatial Data Information Service (MSDIS) support role in the Joplin tornado disaster response, Iowa Emergency Management Department flood response, and Homeland Security Information Program (HSIP).

**MAGIC 2012**  
April 22 - 26 Kansas City, MO  
Westin Crown Center

**INNOVATION**  
As the premier conference in the region, MAGIC promotes the advancement of GIS and geospatial technologies by focusing on today's key issues and challenges.

**KNOWLEDGE**  
MAGIC attracts top experts who will provide you with the most advanced tools and solutions in the industry to arm you with the knowledge necessary to succeed.

**COMMUNICATION**  
MAGIC encourages open dialogue in an environment where you are able to share your experiences, learn from the successes and challenges of your peers, and take home solutions that you can start using today.

**SHARING**  
MAGIC facilitates the exchange of experiences, data, and projects across all levels of government and the private sector.

**CONNECTIONS**  
Form new friendships and partnerships with MAGIC's cutting edge Exhibit Hall and social events, which are sure to provide you with an experience that you will remember for years to come.

MidAmerica  
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www.magicqis.org

## USGS Corner

Shelley Silch

USGS Geospatial Liaison for Illinois



### Free Bulk Distribution of The National Map Data

Bulk data from *The National Map* is now available. To receive FREE bulk data, we require you to supply external hard drives, within our specifications, and pay for shipping the drive(s) to us and provide a paid return label or a carrier (UPS, FEDEX) account number. Turn-around time may take up to 4 to 8 weeks; no guarantee or priority service available. The actual delivery time may vary, depending on the workload at the time an order is placed.

#### Specifications for external hard drives listed below:

- USB 2.0 / USB 1.1 compatible
- PC and XP compatible
- Capacity—large enough for estimated data, usually 30 to 40 gigabytes (GB) for system use. (For example, 300 GB external hard drive holds 277 GB of actual data; 500 GB external hard drive holds 460 gigabytes of actual data).
- Accepted capacity range of 120 GB to 1.5 Terabytes
- Cache Buffer—8 megabytes or higher
- Spin Rate—7200 RPM
- Drives are reformatted to FAT32; any data already on the external hard drive will be lost.
- EROS will place content labels on drives.

#### Process for acquiring bulk data:

Send an email request to [bulkdatabinfo@usgs.gov](mailto:bulkdatabinfo@usgs.gov) and it should include the following:

- Your information (address and phone number)
- Product requested.
- Area requested (applies to the High Resolution Orthoimagery)
- Format

An email will be sent with the following information:

- Job ID Number
- Size estimates for requested data
- External drive minimum specifications
- Shipping address

You ship the following:

- Correct number of external drives based on the size estimates.
- All correspondence emails – **Highlight the Job ID Number**
- Return shipping address
- Return shipping account number or labels

We will not process the request unless we have the correct number of drives; a Job ID Number listed, and return shipping account or labels.

*No warranty expressed or implied is made by the USGS regarding the condition of received or distributed external hard drives. The USGS shall not be liable for any received or distributed damaged external hard drives. These data have been processed successfully on a computer system at the USGS, no warranty expressed or implied is made by the USGS regarding the use of the data on any other system, nor does the act of distribution constitute any such warranty. Data may have been compiled from various outside sources. The information may be updated without notification. The USGS shall not be liable for any activity involving these data, installation, fitness of the data for a particular purpose, its use, or analyses results. Any questions, please contact [bulkdatabinfo@usgs.gov](mailto:bulkdatabinfo@usgs.gov).*

## 2011 ILGISA Outstanding Student Awards

Amanda Ault

Mark McCleary, Max Walker, Kelsey Caldwell, and Nicholas Wians were selected as the 2011 ILGISA Outstanding Student Award recipients. Each student was recognized at the Spring ILGISA Conference in Champaign and presented with a plaque.

Mark and Max are both students in the Geography-Geology Department at Illinois State University. Their research has focused on the invasive presence of the American Gypsy Moth in the Apostle Island National Lakeshore. Kelsey is a student in the Department of Geography & Geosciences at Elmhurst College and has most recently completed a summer internship with a major utility firm. Nicholas is a student in the Department of Geography at Northern Illinois University and is an active volunteer outside of the academic setting.

The ILGISA Outstanding Student Award is presented to an undergraduate student of any major who has included GIS in his or her course of study. Students nominated for the award have demonstrated exemplary proficiency and understanding of GIS, potential contribution to the GIS community, and general success in school. Congratulations to all of the 2011 Outstanding Student Award winners!

## Placing the Cart Before the Horse: An Intern's Perspective on GIS

Michael Aumiller, Research Associate, Woodstock Institute

While I was completing my bachelor's degree in geography, I was enrolled in a GIS applications course. Near the waning portion of the semester, we entered into a discussion and debate on an idea that frequently arises within the GIS community: Is GIS a tool or a science? The "tool side" of the argument asserts that GIS is simply the utilization of a tool in the investigation of a problem. The "tool side" also sees GIS as a type of software with specific hardware tools such as digital geographic data used to advance a specific goal. The "science side" views GIS as a derivative of the geographic sciences. The "science side" would argue that the rules used in the creation of spatial models are proof of GIS being a science.

At the time of this discussion, I was fervently on the side of science. My initial response however, was founded in emotion and not experience. I had no experience to speak of outside of lab time in school. I failed to understand how anyone could belittle what we did as GIS practitioners. I came to the conclusion that anyone who believed GIS was no more than a tool was simply ignorant to the skill required to operate a GIS effectively. I was ill-equipped at this point in my education to understand the nuance to the debate. While unaware at the time, it is now clear that I was framing the debate backwards in my mind. I was placing the cart before the horse. Once I graduated and entered the professional world, I began to see a different angle to the debate.

### Brave New World

Several months removed from graduating I was hired as an intern at [Woodstock Institute](#), a non-profit organization in Chicago. Woodstock Institute conducts applied research and policy advocacy; primary focus areas include fair lending, wealth creation, and financial systems reform. My role at Woodstock Institute includes data preparation, quality checking, and mapping. I have learned a great deal at Woodstock Institute in all of the aforementioned subject areas, particularly within the area of mapping. Performing GIS functions professionally has been as exciting as it has been frustrating.

At Woodstock Institute I have had the opportunity to work on and assist with the preparation of our bi-annual factsheet on foreclosures and auctions. This document acts as a summary of foreclosure and foreclosure auction activity within Cook, DuPage, Kane, Lake, McHenry, and Will counties. The factsheet breaks down Cook County further into varying geographies such as City of Chicago community areas and City of Chicago aldermanic wards. Additionally, the factsheet documents foreclosure filings and foreclosure auction activity for the 100 most populous census places within the six-county region. Without a GIS, this would be a daunting project. A very meticulous and deliberate procedure in conjunction with the GIS generates this factsheet. The procedure that we follow to construct the factsheet involves cleaning data of duplicates, geo-coding each address, and running the coded addresses through MapInfo to ensure geographic accuracy. With the accuracy ensured the data are then aggregated at various levels of geography again utilizing MapInfo. This process is extraordinarily accurate if executed properly. Through repeated attempts and failures I realized that the chosen procedure makes a greater difference than the GIS itself. This realization began to reframe an old question in my mind: Is GIS a science or a tool?

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## Cart Before the Horse - Continued from page 6

### A Question Revisited

At multiple points through the fact sheet generation I had made careless errors resulting in “cascading errors” or the “snowball effect.” These errors were the result of operator error; I was failing to use the procedure correctly. Now it is clear that a GIS is a tool for performing scientific processes. I realized that science is a factor when developing the process to follow within a GIS. Science is also a factor in the execution of the process. If a GIS practitioner constructs a faulty procedure one would not say it is “bad GIS.” The GIS did not construct the process. The faulty process is poor science on the part of the practitioner. My continuous errors on the factsheet process were not the fault of the GIS I was operating. The GIS – like any other tool – performed to the skill level of the operator.

### Lessons Learned

When I recall the debate we had in class, I argued on the idea that GIS was a verb. “GIS is something you do,” I would contend. I remember thinking that GIS is not a simple tool with a sole purpose. In a way I was correct; GIS is not simple. However, GIS does not have a sole purpose or a singular definition. GIS is a different beast entirely that toes the line between the two sides of the debate. GIS most certainly is a tool to be used in conjunction with thorough research to enhance results. GIS makes data more relatable, more approachable both from the researcher’s perspective and that of the general reader. GIS aids the objective of communicating information to the reader in a meaningful and prevalent manner. Without a sound procedure, GIS would be little more than glitter; all flash and no substance. GIS is a tool that requires science to be effective.

## Dissolution of the American Congress on Surveying and Mapping

*Bill Faedtke*

On July 13 a major shift occurred in the world of GIS professional development with the dissolving of the American Congress on Surveying and Mapping (ACSM). While many GIS practitioners today may not even be aware of ACSM’s existence, for over half a century it was the premier support organization for cartographic, surveying, and geodesy professionals in the United States. ACSM was for many years one of the major guiding forces in the change to digital surveying and cartography. Long before the creation of organizations like URISA or events like the annual Esri International User’s Conference, ACSM was promoting nationwide collaboration between these professions.

Ultimately ACSM became less relevant due to the many new specialized organizations that were created to support the ever expanding geospatial industry.

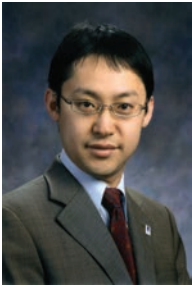
The ACSM Board determined that it would be in the best interests of their membership to shift its mission to another entity. They decided that the most logical choice would be to transfer their functions to a sister organization, the National Society of Professional Surveyors (NSPS).

NSPS itself is retooling itself into an organization that recognizes that the professions of surveying, mapping, and geodesy are rapidly evolving into the new discipline of geospatial technology that encompasses all of these functions.

Here in Illinois, events are mimicking the ACSM to NSPS change. In 2010, the Illinois Legislature revised the Land Surveyors Act to better define the responsibilities of surveyors as they relate to GIS functions. The Illinois Land Surveyors Association has indicated that one of their primary objectives is to work more closely with the Legislature and ILGISA to further define all of our duties in the geospatial arena.

I highly encourage you to visit both the ACSM ([www.acsm.net](http://www.acsm.net)) and NSPS ([www.nspsmo.org](http://www.nspsmo.org)) websites to learn more about the origins of our profession and obtain valuable insight into the new advancements of our geospatial community.

## Conference Paper



### Developing An Address Locator for McDonough County

Keisuke Nozaki  
GIS Specialist  
Western Illinois  
University GIS Center

*Editors Note: The following paper was presented at the Spring 2011 ILGISA Conference in Champaign, IL.*

#### Introduction

The Western Illinois University (WIU) GIS Center has been developing a structure layer with the cooperation of the McDonough County 911. Represented as point features, the structure layer includes street addresses which are delimited by house number, prefix direction, street name, street type, city, and zip code. This project mainly covers residential and commercial structures with telephone attached, in the hopes of helping 911 dispatchers to map where the person is calling from and send the necessary authorities to this location as quickly as possible. Structures which have unknown or missing addresses should be reported to the Macomb City Clerk or County 911 depending on the location. The structure layer is maintained by the GIS Center, and has been shared with the McDonough County GIS Consortium (a partnership between the City of Macomb, McDonough County, and Western Illinois University).

#### Methods

Parcel and road layers may be used to identify addresses, but there are some limitations when you compared them to the structure layer. The parcel layer, maintained by the McDonough County Assessor's Office, contains land property information such as taxpayer's name, address, acreage, legal description, tax amount, etc. There are three types of addresses in the parcel layer: taxpayer's address, owner's address, and street address. They may be the same or different, depending on the circumstances. The parcel layer is a polygon feature and is not designed for identifying addresses

of large buildings, which may contain different house or apartment numbers. The road layer is often used for geocoding addresses; however, the road layer is a line feature which contains the beginning and ending of each house number within a particular road segment. For example, 150 W Main Street would be estimated to be at the midpoint of the road segment ranging from 100 W Main Street to 200 W Main Street. In reality, the address may be anywhere on the line segment. Therefore, a structure layer was selected to map all housing units in the county.

The first step to develop a structure layer is to obtain a parcel layer containing the street addresses from the McDonough County Assessor's Office. There are approximately 17,800 parcels in the county. By using ET GeoWizards by ET SpatialTechniques, polygon features automatically become converted into point features (centroid of each parcel). Points within parcels which do not contain any structures were manually removed. If multiple structures exist in one parcel, additional points were added to account for each additional structure. Verification is required when street addresses are missing or unknown. Four verification methods were used in this project: (1) an aerial inspection for structure

existence (2010 low flights, color, 0.5 feet resolution); (2) phone book and Internet searching; (3) local information such as deeds, rental database, and personal knowledge; and (4) field observations which require a great deal of time.

#### Challenges

Several issues were raised during this project. First, multiple structures can exist in one parcel. Each structure has its own house number, which is common in large apartments (**Figure 1**). The parcel layer may not be very useful in this case, and field verifications were required. Second, multiple addresses can exist in one structure. Small apartments and retail stores tend to use this address scheme. Even though the house number is identical, each unit is defined as 1, 2, 3 or A, B, C. Western Illinois University is a unique scenario. Except residential halls, the university uses one unique address (1 University Circle). This address is for shipping purposes, and each building does not contain its own street address. There have been some discussions on how to assign street address for each building on campus. In addition, inconsistent road names were found near

**Continued on page 9**

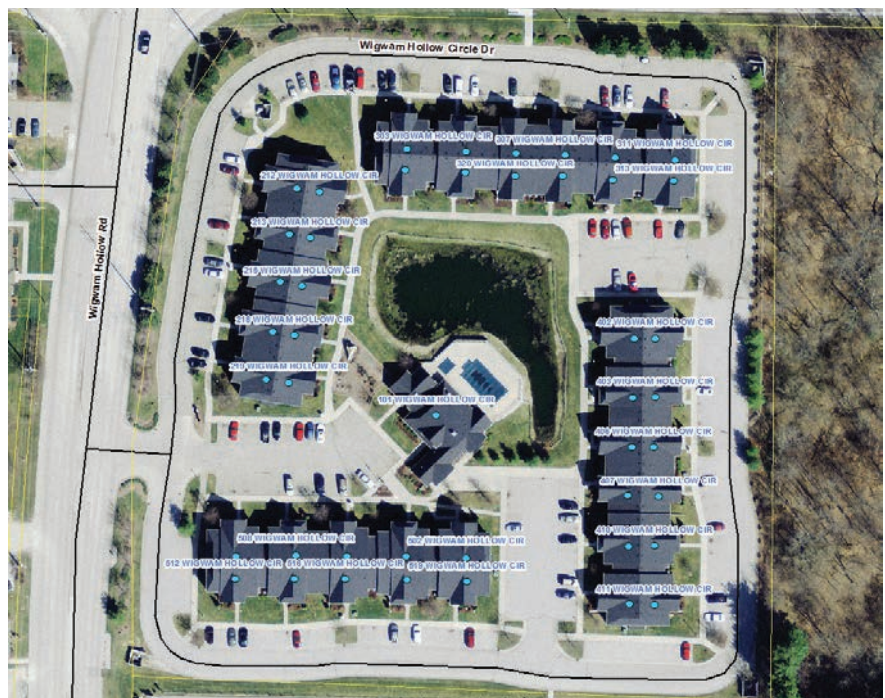


Figure 1. Addresses in Large Apartments



## Address Locator - Continued from page 8

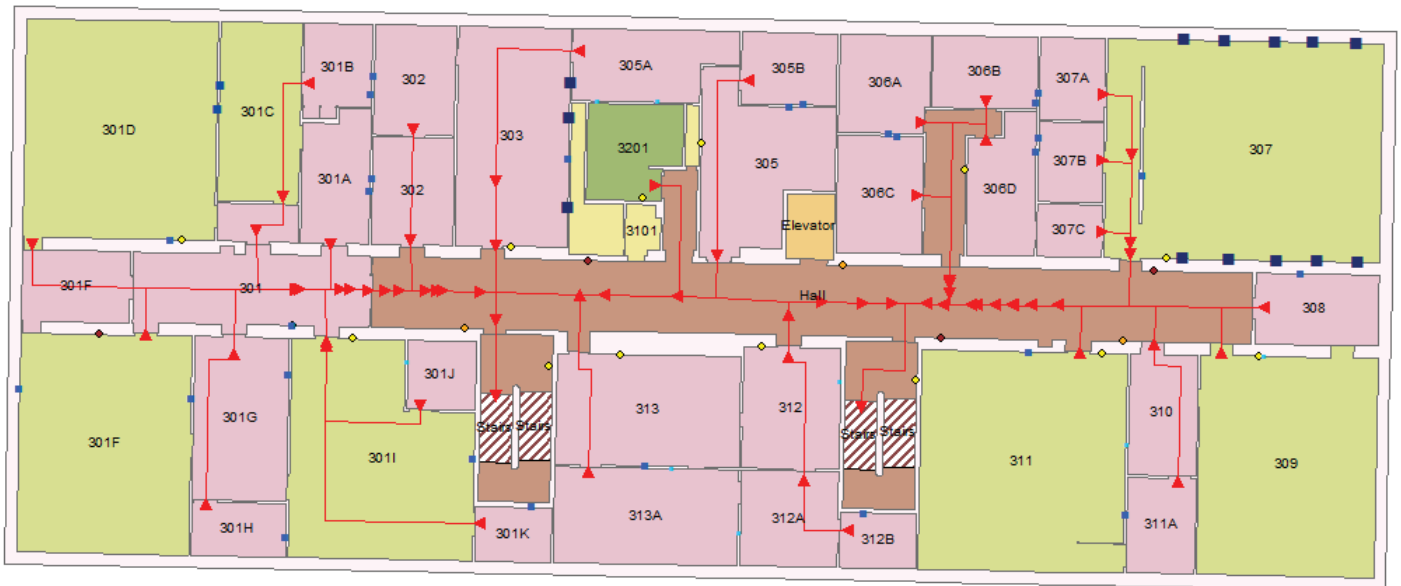


Figure 2. Georeferenced CAD Drawings for Academic Building

city limits. For example, one side of the road street uses E Jackson Street, and the other side goes by Us Hwy 136. In this case, both structures should use US Hwy 136 because they are outside the city limit. The next phase of this project would be to create a detailed map for complicated buildings. For example, County 911 requested that the GIS Center obtain a floor plan for large buildings such as nursing homes and motels because they have many rooms. Fortunately, the majority of the places were very cooperative. A hard copy of the floor plan was scanned and hyperlinked to the structures on the map. The PDF format is suitable when a building has a floor plan containing multiple pages. There was some attempt by the GIS Center to map an interior floor plan for each building on campus. Files in DWG format were converted into a shapefile and georeferenced (Figure 2). However, this process required a few hours for one floor of the academic building. Additional funding and more efficient methods may be helpful. Additionally, the structure layer may be joined to rental database maintained by the Macomb Zoning Office. It is currently joined to a parcel layer, but there are some inconsistencies in the large buildings. This layer would help identify how many rental units are within each structure.

### Conclusions

The structure layer is currently accessible to the members by two applications. One is ArcReader, which is installed on computers in the City of Macomb and McDonough County. The advantage of ArcReader is that the data is stored locally. Even if the Internet is down, the map can be still viewed. However, the GIS Center needs to update the software and data periodically. The other option is ArcGIS Server, which provides a map on the Internet. The only requirement for the user is a web browser, such as Internet Explorer, Mozilla Firefox, or Google Chrome. Even though software and data updates are automated by the GIS Center, the map is not available without an Internet connection. The structure layer is also used to develop an address locator in the county. By typing in street addresses, the map can pinpoint structures very quickly.

As of June 10, 2011, over 15,000 points were recorded in the structure layer. For better performance and smaller file size, the structure layer was stored in file geodatabase format. This project is continuous, and the GIS center has been consistently assigning, modifying, and removing structures with the help of the community.



## GIS Educator's Corner

Rich Schultz

ILGISA Members:  
Another issue of *GIS Notes* is here and I wanted to bring

forth a few of the most recent developments from the educational perspective.

After attending several conferences over the past few months, it is evident that mobile devices and cloud computing are here to stay (at least for now), which means that future geospatial workers must understand the implications and the technologies behind cloud computing. Add that to the already loaded list of skill sets that geospatial workers must currently possess and you have the takeaway that we must be “jack of all trades” workers and master of them all. Desktop, cloud, remote server, what’s next? You’ll get a hint of what’s next at the Fall ILGISA Conference in October. Knowing everything geospatial, however, isn’t an easy task for those of us who know that the geospatial industry is growing by leaps and bounds without a large influx of future workers entering into the pipeline. So, how we do we, as a community, stay the course and provide for the sustainability of the industry?

Some might argue that in the end, we’ll all do fine and things will work themselves out. New technologies will make our lives easier and we will thrive in the long run. That may be, but do we really want to allow fate to take its course? Or, is there something all of us, as geospatial community members, can do to assist in the near future? What can we do to ensure that our industry remains strong, matures properly, and develops in such a way that it benefits the greater society? Simple – become a geospatial ambassador and tout the benefits of the community and preach the good word to all who will listen. Be proud of who we are and what our skill sets are. Mentor others just coming into the fold to provide for their future.

The Illinois GIS Association (ILGISA) Board members will do their part also. They have made the conscious decision to reach out to our community and follow our mission of providing for the future workforce. To that end, we have supported continued professional development opportunities at conferences including workshops, sessions, panel discussions, and most recently, “brown bag webinars”, coming online in September. The webinars will provide ample opportunity for having questions answered, providing feedback to presenters and others leading the sustainability efforts in the geospatial community, and for becoming involved in the governance of the organization. We need your help! Without our membership, ILGISA would cease to exist and there would be no geospatial camaraderie, if you will. It would be difficult to work collaboratively to share data, create standards, or even exchange information. Want something changed or have an idea for the betterment of the organization? Step up, run for a Board position and be a leader! We can’t do it without your willingness to participate. YOU are the future!

ILGISA will also continue to provide for student opportunities within the geospatial industry and constantly encourage organizations to get in touch with educational institutions to lend a helping hand. We, as an organization, will continue to promote grassroots efforts such as thinking ahead with budgets, making plans to hire students for project work and internships, building relationships with the educational community, and doing all of the community a favor by providing for the sustainability of the community. This is what will work in the long run. It takes your help, however.

In the near future, the following opportunities are planned for GIS practitioner and student interaction: a “Careers in GIS” panel discussion at the Fall Conference in mid-October, a student-centered discussion for those new to the GIS community at that conference, and the potential for published articles in future issues of *GIS Notes*. I urge both professionals and students to take advantage of these opportunities to

continue to make the connections between GIS professionals and students within Illinois.

As Co-Chair of the ILGISA Education Committee and a current ILGISA Board Member with only one year left in my term, I invite you and your organization to take advantage of the possible interactions with students and help us, as a professional GIS organization, to strengthen the future workforce in the GIS community within Illinois. Learn about how the U.S. Department of Labor has recently recognized the geospatial industry as one of only a handful of industries by funding efforts to establish a competency model for skill sets. Even the healthcare industry can’t say that. Learn how to apply that model at a workshop which will be offered at the Fall ILGISA Conference on how you, as an employer, future geospatial worker, or even a career changer, can learn about what’s new and what you will need to know in the future as our industry matures.

If I or any of the ILGISA Board members can do anything to promote connections or if you have further suggestions to promote the cross fertilization of these groups, please contact me or any ILGISA Board member.

I hope all of you will join me in being a geospatial ambassador, mentor, and leader in making sure the geospatial industry continues to flourish.

**See you at the Fall Conference in October in Naperville, Illinois!**

Dr. Rich Schultz  
Co-Chair, Education Committee

## 2011 Spring ILGISA Conference Summary

John Kostelnick  
Shelley Silch

Despite some severe weather and even a tornado warning in Champaign to get everyone in the spirit for the "R U Ready?" theme, the 2011 spring ILGISA conference carried on as planned. Over 12 workshops, more than 30 presentations, several "hands on" emergency management vehicle displays, student poster presentations, and a Manager's Breakfast were among the highlights of the conference. Dr. Seth Stein of Northwestern University provided a thought-provoking keynote presentation about the 1811-1812 New Madrid earthquake as well as challenges today for predicting future earthquakes in the region. Thanks to all who participated, we look forward to seeing everyone at future ILGISA conferences!

## Conference Snapshots



## Committee Reports

### ILGISA Statewide GIS Standards Development Update

Bill Faedtko

During the first half of this year a number of significant events have occurred that will assist ILGISA towards its ultimate goal of developing and maintaining a set of Illinois GIS standards.

Earlier this year, the Federal Geographic Data Committee (FGDC) (<http://www.fgdc.gov/fgdc-news/fgdc-endorses-address-data-standard>) gave final approval to the new United States Thoroughfare, Landmark, and Postal Address Data Standard. The adoption of this new FGDC Standard is a milestone in that we finally have a comprehensive set of technical specifications for place-based GIS data.

While this new FGDC Address Standard corrects the vast majority of the shortcomings of previous standards, a few loose ends do remain that will be need to be considered by the ILGISA Ad Hoc GIS Standards Committee. For example, the FGDC standard does not provide for the database design of place records that have multiple street names or route identifiers.

In total, there are eight categories of GIS data that the Federal government classifies as essential to build the nationwide spatial data "Framework." These data types are Cadastral, Elevation, Geodetic Control, Governmental Units, Hydrography, Imagery, Places, and Transportation.

Many GIS users may not be aware that the specific responsibilities for the development and standardization of national spatial framework datasets were established by the United States Office of Management and Budget directive OMB-A16. This document defines which federal agency is charged with maintaining each specific data type ([http://www.whitehouse.gov/omb/circulars\\_a016\\_rev](http://www.whitehouse.gov/omb/circulars_a016_rev)).

FGDC has published a set of detailed specifications known as "Geographic Information Framework Data Standards" ([http://www.fgdc.gov/standards/standards\\_publications/](http://www.fgdc.gov/standards/standards_publications/)). Although these specifications provide an excellent starting point, ILGISA must perform additional data modeling work in order to generate a workable product that can be used as a statewide standard.

Many of the national GIS standards are in a state of flux and may not be available for use for at least a couple of years. For example, the United States Department of Transportation is currently conducting an initiative named "Transportation for the Nation" (TFTN) to create a nationwide GIS transportation data model. The US DOT is offering no completion date for this product.

In the interim, ILGISA, working with governmental GIS entities throughout the State will be developing an Illinois GIS transportation network GIS standard that will support an easier conversion to the US DOT model when it is published.

A significant part of national GIS standards development is being performed by some of the major GIS software vendors. They have come to the realization that not all counties and cities have extensive GIS database developmental staffs, and that they must provide a set of "off-the-shelf" data templates for the most commonly used applications.

The ILGISA Ad Hoc GIS Standards Committee will be working with private vendors during the development of our State's standards. ILGISA's By-Laws prohibit favoring any vendor over another, and to this end the Ad Hoc GIS Standards Committee will be contacting all of the major GIS software vendors to determine if they wish to participate in our efforts.

The creation of GIS standards for Illinois is meaningful only if they are actively utilized. ILGISA, through its Membership Committee, will be actively working to encourage all GIS users in the State to use these new standards as the definitive format for data sharing.

### Publications Committee Report

John Kostelnick, Chairman  
Mary Clement  
Rick Marshall  
Keisuke Nozaki  
Brian Valleskey

The Publications Committee has recently established a list of short and long-term goals to guide the Committee's work into the future. These include initiatives to expand the content in *GIS Notes* to include more technical articles and possibly even special themed issues. Further expansion of *GIS Notes*, of course, can only be achieved through additional contributions from ILGISA members, and the Committee is investigating new ways to solicit content from the membership. We invite you to submit articles, news items, or other materials for the January issue of *GIS Notes*. Keep an eye out for the "Call for Content" that will be circulated after the Fall Conference with more details. As always, we appreciate your feedback and suggestions.

### Webinar Committee Update

Greg Johnson

The ILGISA Ad Hoc Webinar Committee will be hosting "brown bag" webinars this fall. Here is the schedule for the upcoming noon webinars:

Thursday, September 22: "Developing the Future Geospatial Workforce: What Do I Need to Know?" by Dr. Rich Schultz

Wednesday, October 12: "A New Generation of USGS Maps: US Topo" by Shelley Silch, GISP

Thursday, November 10: "Pinpointing Addresses in Will County" by Greg Johnson, GISP

Visit [www.ilgisa.org](http://www.ilgisa.org) to view announcements for these and future webinars.

## Website Committee Update

Roger Diercks

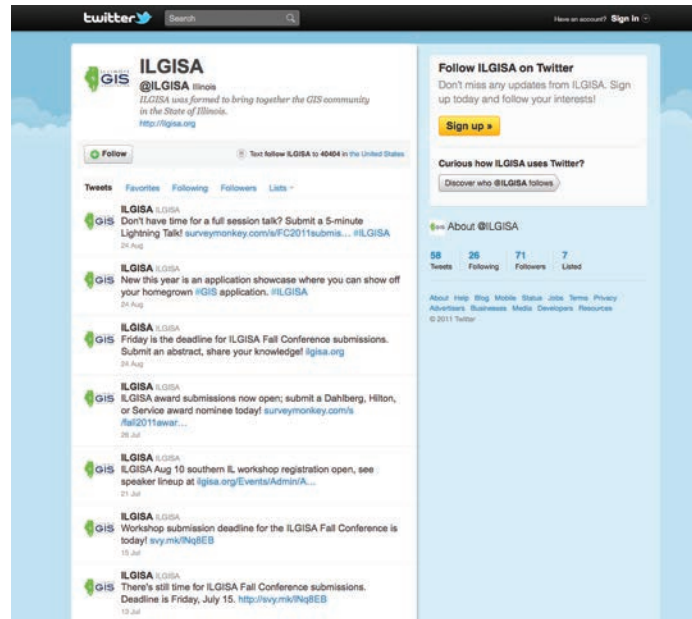
### Are you social? ILGISA is!

Social media is in the headlines a lot these days. With millions of people and thousands of organizations using social media every day, it is becoming an important channel for interaction, collaboration, and dissemination of information. Information that not long ago was distributed solely through newsletters or e-mail now often makes its way into the wider world first through social media.

The geospatial profession is no exception to this trend. Many people and organizations in the field are active users of services such as Twitter and LinkedIn and find them to be valuable professional tools. A number of major geospatial firms actively use social media and encourage their staff to do the same.

ILGISA has a social media presence of its own. ILGISA's LinkedIn and Twitter accounts provide yet another avenue for the dissemination of information, but even more importantly, additional ways for members and others to interact with the organization. If you haven't already done so, please take a minute and join ILGISA's LinkedIn group and follow ILGISA on Twitter. The ILGISA LinkedIn group can be found by searching for 'ILGISA' within LinkedIn. On Twitter, ILGISA can be found @ILGISA.

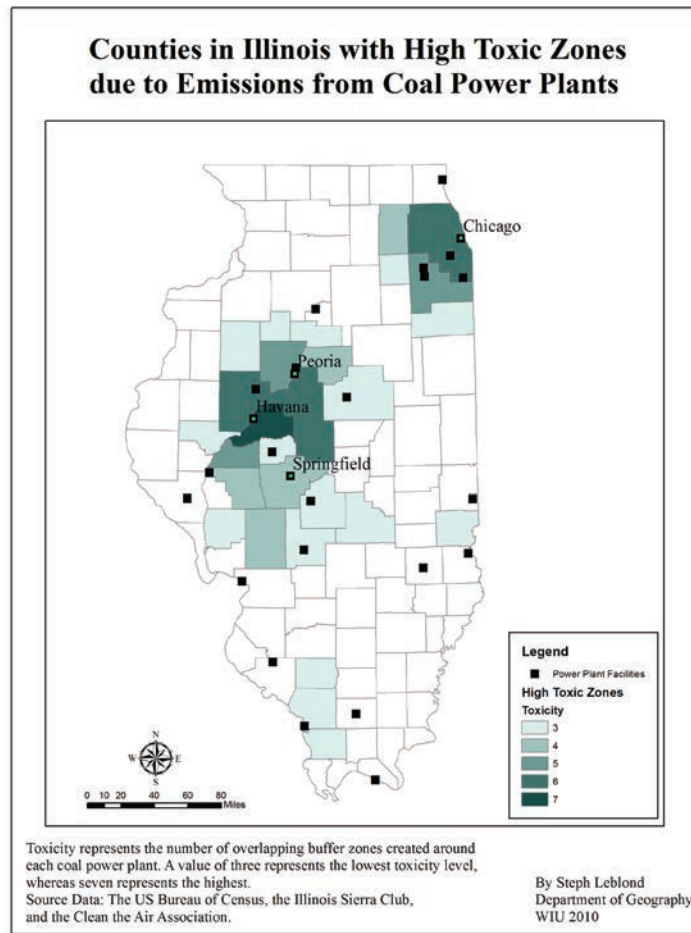
Please don't hesitate to contact any ILGISA Website Committee member with questions or comments about ILGISA's use of social media. We're here to help!



## GIS Notes Map Contest Results

The results are in from the inaugural *GIS Notes* map contest! We are pleased to announce that the entries submitted by Stephane Leblond, graduate student at Western Illinois University, and Caleb Mackey, undergraduate student at Western Illinois, were chosen by the Publications Committee as the first-place and runner-up entries, respectively. Please join us in congratulating Stephane and Caleb for their cartographic talents!

### First Place - Stephane Leblond



### Second Place - Caleb Mackey

