ILLINOIS GIS NOTES
THE NEWSLETTER OF THE ILLINOIS GIS ASSOCIATION
FEBRUARY 2012

HOW MUCH CAN WE DO WITH ARCGIS ONLINE?

By Keisuke Nozaki

Introduction

ESRI provides online map services called ArcGIS Online (http://www.arcgis.com/). Google Maps were previously discussed in the GIS Notes Winter 2010 edition, and the author would like to discuss functionality of ArcGIS Online. Initially, a free ESRI Global Account is required to create and modify maps. Once signing up a new account, users may store up to 2GB space in their account and take advantage of basemaps, including Microsoft Bing Maps (both aerial and road). ArcGIS Online currently offers two viewers: the ArcGIS.com map viewer and ArcGIS Explorer Online. Each application has pros and cons and those will be discussed in further detail below.

ArcGIS.com Map Viewer

This is a light weight application with basic functions. All that is required is a web browser such as Internet Explorer, Mozilla Firefox, and Google Chrome (Fig. 1). New functions include importing a variety of different file types. These files include shapefiles, tab or comma delimited text (.csv or .txt), and GPS exchange format (.gpx). However, there is a 1,000 feature limit on imported files. While text files should contain latitude and longitude information, GPS exchange format may include waypoints, tracks, and routes. Shapefiles with defined projections need to be compressed into a zip format. In addition, ArcGIS Server Web Service, OGC Web Service, and KML may be loaded.

(Continued on page 4)

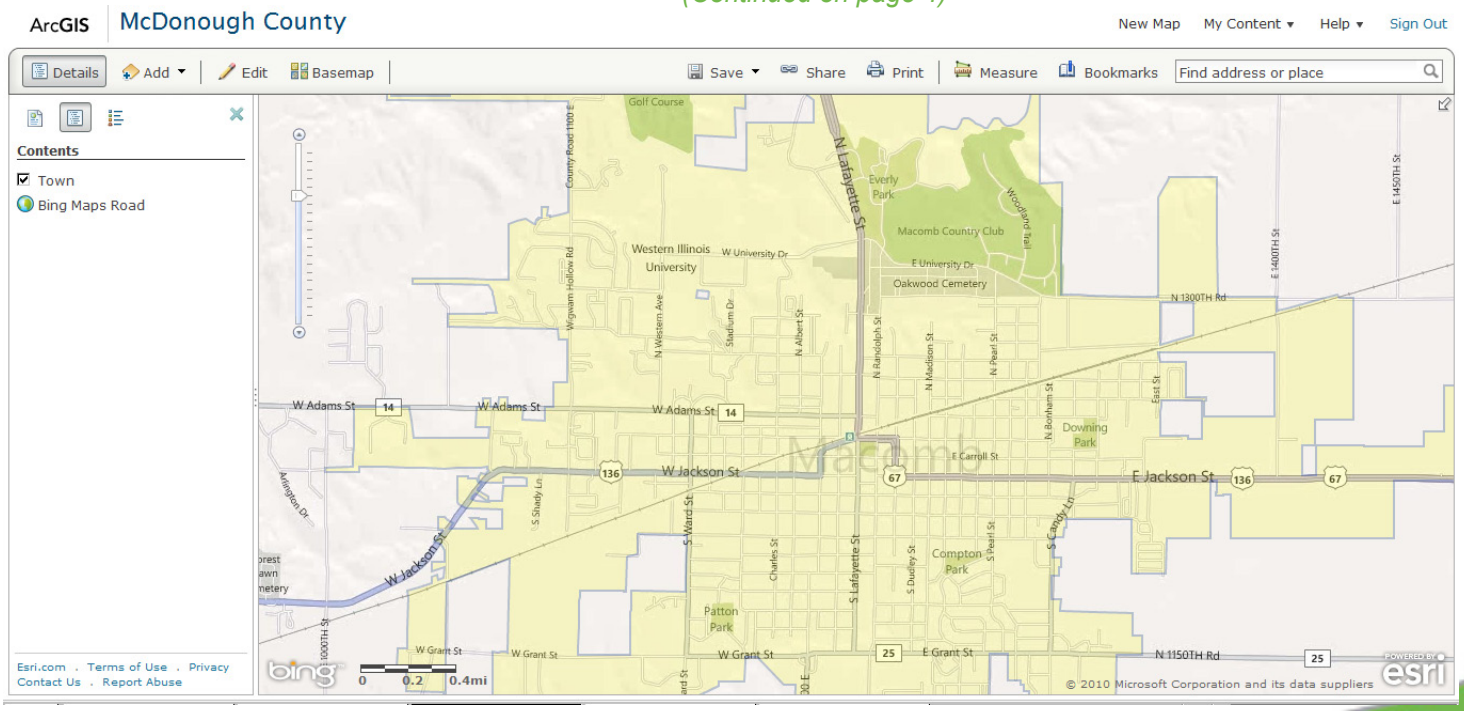


Figure 1. ArcGIS.com Map Viewer

IN THIS ISSUE...

How much can we do with ArcGIS Online? 1
My Spatial Corner 2
GIS NOTES from the Editor 2
GIS Educator's Corner 3
New Student Members....3
New GISP's 4
ILGISA Calendar 4
Cross Training or Cross Utilization .5
ILGISA Awards....6
Conference News....7
USGS Corner 9
News from your MidAmerica GIS Consortium (MAGIC) Liaison....10
Map Submissions 11

MY SPATIAL CORNER

from your President

By Shelley Silch

(I'm not smart enough to come up with that name on my own! Thanks, Rich)

First, let me thank those who have been so kind to me during this past month and to let everyone else know that after many years of pain and suffering, my husband passed away on December 17th. A very heartfelt "Thank You" for everyone's help in getting through this period and I expect the near future.

As I sit here writing this note to all of you . . I think about all the great ILGISA Presidents that have come before me. I've heard so many wonderful stories of Richard Dahlberg and feel that I really missed out on meeting a great leader. I've watched and learned from great past Presidents (Although I'm glad that we no longer have Board meetings that last until midnight or later!). I also want to salute the wide array of people that I've met in the Illinois geospatial community and how open and receptive everyone has been to me since I moved to Illinois. One of my goals for this coming year is to continue the work, started by too many people to name here, of moving towards a more coordinated geospatial community. I've seen numerous efforts already made towards this goal and still believe it can be obtained to benefit all. So . . . when you get that phone call or email from someone in ILGISA . . please help out and serve on a committee . . of course I know that a lot of you have already volunteered :) ILGISA is a great organization and a great place to meet and make new friends. Give me a call or email . . I have an "open door" policy.

Shelley Silch is the President of ILGISA and the USGS Geospatial Liaison for Illinois - ssilch@usgs.gov or 217-328-9732

Publications Commitee Members:
Micah Williamson, *Chair*
Keisuke Nozaki
Rian M. Crowley
Brian Valleskey

GIS NOTES FROM THE EDITOR

Greetings, my name is Micah Williamson. I am new to the ILGISA Board and new to the Publications Committee. I'd like to take this opportunity to thank our past editor; John Kostelnick (Go Redbirds!) for all the help and his wonderful organization of past articles. I have read GIS Notes for years but have hardly given a thought to the work it takes to get a publication finished. It's exciting to be a part of a vital and growing organization like ILGISA. I take the opportunity to serve our membership very seriously in the capacity as Editor of GIS Notes. I understand this issue is getting out a little later than past winters, but that is not because of a lack of material. We have continued to keep the popular USGS Corner and Map Contest as well as standards like the Educators Corner. Publication in GIS Notes is open to any member, so get your submission in early for the summer 2012 edition. Much has changed over the past year and there is still more to come.

As always, we appreciate your feedback on GIS Notes, and welcome your thoughts on additional ways that we might improve ILGISA publications.

Micah is the ILGISA Publications Committee Chair and GIS Manager for Peoria County.

GIS EDUCATOR'S CORNER

ILGISA Members:
Time really flies when one is working and enjoying what we do…Another issue of GIS Notes is now here and I wanted to share a few of the most recent developments from the educational perspective, especially in what the ILGISA Education Committee is working on for the membership.

One of the primary aspects of the organizational mission of ILGISA is to educate others about geospatial technologies and to create a pathway for those new to the community in making a successful transition into the geospatial workforce. Estimates indicate that geospatial jobs are on the rise and to keep up with the demand, the industry will need future geospatial workers. To that end, the ILGISA Education Committee has set our highest priority for 2012 to encourage both two- and four-year educational institutions to establish ILGISA Student Chapters. The ILGISA Board of Directors has set forth seed monies in 2012 in order to assist with this. A goal has been established of encouraging ten (10) institutions to begin new student chapters in 2012 with each receiving the startup funding upon successful establishment of the student chapter. Each chapter must have a minimum of six (6) members as set forth by the Board of Directors. A subcommittee of six ILGISA Education Committee members has been working diligently to make this happen.

Secondly, a number of you have attended ILGISA Webinars over the past few months, which will continue in 2012. The Education Committee will continue to work collaboratively with the Ad Hoc Webinar Committee to continue to provide educational webinar experiences to the ILGISA membership. However, we need your help in terms of preferred topics, participation/attendance, and volunteers to lead webinars if you are so inclined. The more feedback the membership provides, the more we, as directors, will be able to bring you what it is that you, as the ILGISA membership, wants as part of your membership dollars.

Also as part of the mission of ILGISA, educational platforms and forums for those entering into the workforce need to be provided. These opportunities range from organizing and chairing a panel discussion at the Spring and Fall ILGISA Conferences geared specifically for students and those new to the geospatial community, to offering special workshops at the conferences. A dedicated subcommittee of the ILGISA Education Committee has been organized to establish these experiences.

Finally, a new venture that ILGISA has agreed to undertake is a Service Project geared towards geography and/or GIS education. There is no prescribed format as of yet for the service project other than having the ILGISA Education Committee research service activities and decide what is most appropriate for the organization. If you have ideas or would like to be involved with the service project, please contact me at richs@elmhurst.edu .

The ten (10) members of the ILGISA Education Committee will be busy this year undertaking the aforementioned initiatives. Any and all feedback and assistance to their work would be welcomed.

I hope all of you will join me in our efforts to carry out the mission of ILGISA and educate the community on the importance of geospatial issues and answers.

See you at the Spring Conference in Champaign at the I-Hotel in mid-April!

Rich Schultz, Ph.D.
Chair, Education Committee

Dr. Schultz is also Assistant Professor of Geoscience and GIS and Coordinator of the GIS Certificate Program in the Department of Geography and Geosciences at Elmhurst College.

WELCOME TO ILGISA'S NEW STUDENT MEMBERS!

Students are an important part of our membership, especially because they represent the future of GIS within the State of Illinois. We encourage students to join and benefit from our conferences, networking and mentoring opportunities. Look for them at our conferences and welcome them for participating.

Students are also encouraged to look into forming an ILGISA Student Chapter at their educational institution. For more information, contact the Executive Director or the Chair of the Education Committee.

Welcome to our newest student members:
(as of January 31, 2012)
Muriel Marseille - Chicago State University
Trisha Rentschler
Paige Marshall
Steph Leblond - Western Illinois University

*(**ArcGIS Online** cont. from page 1)*

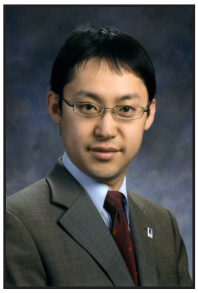
Users are able to set scale dependency, symbol, pop-up, and transparency of each layer in the Table of Contents. It is possible to add hyperlinks in the attribute table and editable layers which are equivalent to graphics in ArcGIS desktop. All data such as basemaps, editable layers, and imported files are stored on the ESRI server. There are three methods to share the maps: (1) copy and paste the link to into e-mail or IM; (2) embed within website; and (3) make a web application. This application also allows users to identify features, measure locations, lines, areas, and create bookmarks which save a map extent of the preferred location. Users can also perform an address search through ESRI Geocoding Service. For more information, please visit online help at http://help.arcgis.com/en/arcgisonline/help/.

ArcGIS Explorer Online

This is a web application which has additional functionality compared to the ArcGIS.com map viewer. However, Microsoft Silverlight Plug-in is required to access the applications. With ArcGIS Explorer Online, users can create and modify queries to obtain results which meet the criteria they specify, as well as edit and select features like ArcGIS Desktop. It is also possible to add the map dashboard which allows users to provide information about the features within the map and construct presentations which are similar to layout view in ArcMap. There is a manual for ArcGIS Explorer Online available at http://help.arcgis.com/en/arcgisexplorer/help/.

Conclusions

Both the ArcGIS.com map viewer and ArcGIS Explorer Online would be useful applications for those who cannot afford the cost that are attached to ArcGIS Server. Only with ArcGIS Desktop, they would be able to create maps and publish them on the website. However, there are some limitations to this method. First, basemaps provided by ESRI are not editable. Second, there is a 1,000 feature limit on imported files. A workaround is dissolving features, but it would not be appropriate to display large files such as parcels on the map. ArcGIS Explorer Online does have some advanced functionality. Unfortunately, it can get heavier than the ArcGIS.com map viewer depending on the Internet environment. The author believes the public would prefer the ArcGIS.com map viewer because it is a light weight application with basic functions. However, a disadvantage of this application is that basemaps are currently limited to Bing Maps and ESRI Maps. Other map services such as Google Maps and Yahoo Maps are not included. ArcGIS Online definitely provides more customizable tools than Google Maps, but Google Maps seems faster and easier to use. In conclusion, we need to consider a balance between performance and functionality that plays an important role no matter which map applications we develop.



Keisuke Nozaki is a GIS Specialist at the GIS Center, Western Illinois University.

ILGISA CALENDAR

MARCH

March 9 - Deadline to Submit Session & Poster ***Proposals***
March 17 - ***Hotel Room Block*** Rate Ends
March 24 - Early-bird Conference Registration Ends
TBD - Webinar Series Kick-off
March 31 - Deadline for 2012 ***Membership Renewals*** *(note that if dues are not received by this date, lapsed members will have to pay the non-member conference rate)*

APRIL

April 9 - Last date to Receive Refund for Spring Conference
April 18-19 - ***Spring Conference*** at the I-Hotel & Conference Center in Champaign, Illinois

NON-ILGISA Events

March 7 - ***Elmhust College Online GIS Certificate Program Webinar***
April 22-26 - ***MAGIC Symposium*** in Kansas City, Missouri

Thank you to
our Fall 2011 Conference
Silver Sponsor,
GIS Solutions, Inc.

CONGRATULATIONS TO THE NEW GISP'S!

Congratulations to the following members who have obtained or renewed their GISP Certification since August 2011.

- **Nathan Catania** - *GIS Specialist*, CDM
- **Emily Miller** - *GIS Analyst/Engineering Technician*, Wills Burke Kelsey Associates
- **Zoe Zaloudek** - *GIS Specialist*, Illinois State Water Survey
- **Kevin Dicks** - *GIS Manager*, Poepping Stone Bach & Associates
- **Yu-Feng Lin** - *EDC Director/Hydrogeologist*, Institute of Natural Resource Sustainability University of Illinois at Urbana-Champaign
- **Janet Thornhill** - *GIS Technician II*, Champaign County Regional Planning Commission

CROSS TRAINING OR CROSS UTILIZATION

By Jeff Palmer

The Department of Labor estimates geospatial job growth from 2008 to 2018 to be ~13-18%.[1] I believe this estimate is grossly understated, since it doesn't include the expansion of benefits through digital-sharing and it ignores the geospatial professionals working in commerce.

We can argue with the statistics or we can focus on the fact that our people will have to do more until a new generation enters our profession. In the mean time, **Cross Training** will become a preferred solution, since it offers the promise of interchangeable human assets --- the promise that at any time under any circumstance one person can pick up the work of another and do it as well or better without the loss of time.

However, I haven't seen a truly cross trained enterprise, department or team, except for the Military. And yet with the mirage of interchangeable parts, I have seen significant sums of time and money spent on trying to get to the oasis before running out of water, metaphorically speaking.

This article describes the nature of cross training and will offer reasonable alternatives.

For example, let's pretend that you supervise a 6-person team and the department has purchased a new system; new technology that will be managed by one of your people, let's call her Kelly.

Figure 1. Cross Training, The Holy Grail

The knee-jerk reaction is to train the entire team prior to the delivery --- the vendor agrees --- it makes sense --- it is consistent with all of the systems purchased to-date and the appropriation covers the training costs.

Your team invests 48 hours (6 X 8hrs) and you brace yourself for one day without any departmental work being done; unless you agree to over-time. Training takes place, everyone is on-board and Kelly begins to produce work with the new technology, the others return to their tasks and you scramble to make up for one day's lost production.

Does this sound reasonable, realistic and typical? Sure it does, this happens all of the time, it is justified as "economy-of-scale;" I call it counter productive.

This approach also violates a fundamental rule of training: Rule #4 "Training Can't be Stored." Or in other terms, "Use it before it fades," or "Use it or lose it," or my Midwest favorite "Use it before it rusts!"

A better way. Have the entire team experience the orientation section of the training day (usually the first hour). Then the other five return to their work and Kelly completes a concentrated job-specific session. The appropriation covers the one day of vendor training. Your team invests 13 hours (5 X 1hr + (1 X 8hrs)) and you don't lose an entire day's work.

Better yet. Kelly works with the trainer 1 to1 on departmental specific applications. You and the other team members produce a typical day's work. Then sometime in the near future maybe at the next departmental meeting, Kelly gives the team an orientation to the new technology with examples of work.

Training Cost Comparisons		
Alternatives	**Training Time, Hours**	**Lost Production, Hours**
Train the entire team	48	48
Orientate everyone and train Kelly	13	13
Train only Kelly	8	8

Besides the obvious, training only Kelly doesn't dilute the session for Kelly and she forms a stronger relationship with the trainer, which never hurts.

This example illustrates the training centered on a new purchase, but what of your current systems?

(Continued on page 8)

ILGISA AWARDS

Each year, ILGISA formally recognizes individuals and groups who have contributed to the betterment of GIS in the State of Illinois.

Each Fall, the Honors Committee can award the following awards:

- The **Dahlberg Distinguished Achievement Award** is presented to an individual who has made a significant contribution to the development and advancement of geographic information systems.
- **Hilton Distinguished Collaboration Award** was established in 2010 in memory of Founding Member, Richard Hilton. This award is presented to an individual who has made a significant contribution to the promotion of cooperation within our community and with the people we serve.
- The **Service Award** is presented to an individual or organization which has provided exemplary professional service or support to the GIS community.

THE 2011 DAHLBERG DISTINGUISHED ACHIEVEMENT AWARD PRESENTED TO

Christopher McGarry, City of Rockford

Chris McGarry has contributed to ILGISA perhaps as much as any other ILGISA member. Chris spent six years on the ILGISA Board of Directors serving as Treasurer, President Elect, President and Past President. During this time, Chris co-chaired numerous Conference Committees and orchestrated the redesign efforts for the ILGISA website. His efforts are perhaps most appreciated for his countless conference presentations and workshops; many if not most ILGISA members have probably attended a workshop or paper presentation given by Chris. Chris also served the ILGISA community during his time at the Illinois State Geological Survey (ISGS). He was an integral part of the project to process, archive and distribute 1998/1999 Illinois Digital Orthophoto Quarter Quadrangles; he created custom programs to automatically re-project over 4,000 orthoimagery files and was a key developer in the team to design the first interactive map service offered by the Illinois Natural Resources Geospatial Data Clearinghouse. That service was selected as a winner in Esri's 2001 Geography Network Challenge contest, a contest offered to increase awareness of Internet mapping services for publishing and sharing geographic information, and also the 2001 ISGSTeam Award.

Chris's contributions stretch back to the very beginnings of ILGISA and have provided enormous education and organizational benefits to our community.

2011 SERVICE AWARD WINNERS

Greg Johnson, GISP, Will County GIS

Greg Johnson was the GIS participant with the Reapportionment Committee in redrawing the County Board districts. The number of districts was expanded to 13 in order to maintain the population standard from 2001, but one less county board member will be elected. Greg is the GIS participant with the County Clerk Elections Department in redrawing the precinct boundaries. The number of precincts was reduced from 455 to 302. This change was made possible by reviewing the voter locations and election districts. The GIS Department completed their multi-year project in developing a countywide Master Address Table. The GIS Department completed their migration to ArcGIS 10. In addition to being involved with the GISCI Renewal Task Force to promote and strengthen the GISP through renewals, Greg has served two years on the ILGISA Board of Directors.

Ryan Meekma, Illinois State Water Survey

Ryan Meekma is a GIS Specialist at the Prairie Resource Institute at the Illinois State Water Survey. Ryan received his BS in Geography at the University of Wisconsin-Whitewater. Ryan served on the 2011 Spring Illinois GIS Association (ILGISA) Conference committee as he has for several previous conferences. For every conference committee, Ryan has performed numerous "unsung" hero activities such as coordinating IT activities between conference committees and the iHotel. Ryan performed at an extraordinary level this spring as he brought new ideas, enthusiasm, and commitment to the committee. Most importantly, he followed through on all his tasks. Ryan was responsible for organizing and coordinating the emergency vehicle displays at the spring conference, a task that required a tremendous amount of time and effort. Ryan enthusiastically embraced the task and with help from other committee members, coordinated, organized, pleaded, cajoled nontypical GIS personnel to come to the conference to show off their emergency vehicles and how they use GIS.

CONFERENCE NEWS

The **2011 ILGISA Fall Conference** was held at the NIU Naperville campus October 18-19 with the theme "GIS Without Borders." Day One of the conference included both technical and introductory workshops that were designed to expand our understanding of GIS in a shifting technology landscape. A mid-afternoon Managers' Summit was offered to decision makers to explain the many uses and returns on investment that GIS offers. After the workshops, attendees caught up with colleagues and vendors at the Vendor Reception and bid in the silent auction – items were donated by our vendors, and we raised nearly $800 to benefit the ILGISA Educational Endowment Fund.

We were honored to welcome our spirited keynote speaker, **MR. PAUL RAMSEY**, who kicked off Day Two of the conference. Paul is a Geospatial Architect at OpenGeo and has been working with geospatial software for over ten years, as programmer and consultant. He founded the PostGIS spatial database project in 2001, and is currently an active developer and member of the project steering committee. In 2008, Paul received the Sol Katz Award for achievement in open source geospatial software.

Day Two was rounded out with panel discussions, poster sessions, a series of lightning talks, and sessions. New this year was an application showcase – a special session where presenters demonstrated their GIS applications.

We'd like to thank our Interim Executive Director, Sherrie Taylor, and her NIU colleagues for their hands in creating a professional conference experience for our nearly 300 attendees. We'd also like to thank the Fall Conference Committee members who put a lot of thought and work into making this conference a success:
Amanda Ault, *Co-Chair*
Curt Abert, *Co-Chair*
Eric Creighton, City of St. Charles
Sue Hultgren, City of Naperville
Karen Robbins, Village of Downers Grove
Rich Schultz, Elmhurst College

Visualize Your Geography at the Spring 2012 ILGISA Conference

April 18-19, 2012
I-Hotel & Conference Center
Champaign, Illinois

Technology moves at a rapid pace, where with limited resources we have to try to master one technology before it becomes obsolete. Not only is cadastral, transportation, environmental and imagery data served through maps, desktop applications and internet services, but can also be ported to a smart phone or tablet. Throughout the conference we hope to share various ways to communicate geospatial data in order to **Visualize your Geography**. This year we are pleased to announce TWO PLENARY SESSIONS with HILARY PERKINS and GAIL KRMENEC & BILL FAEDTKE as our featured speakers.

HILARY PERKINS, GISP, AICP / Planner / City of Maryland Heights, MO
Hilary has over 20 years experience working with GIS in both the public and private sector. Her GIS and planning work in transportation, environmental, urban planning, and community development has provided a variety of leadership and management opportunities on a wide range of projects. Hilary is the Past President of URISA, a founder of the URISA Leadership Academy, a Vanguard Cabinet steering committee member, and serves on a variety of URISA committees. She has received a number of URISA awards including Leadership, Service, and the Special Service Award. She is a Certified GIS Professional, a member of the American Institute of Certified Planners, a member of the Executive Committee of APA's Transportation Planning Division, and a Board Member on TRB ABJ60 Committee on Geographic Information Science & Applications.

GAIL KRMENEC from the U.S. Census Bureau and BILL FAEDTKE will be co-presenting on DATA SHARING: In today's economic climate, collaboration and cooperation among all levels of government is essential; geospatial data sharing is no exception. The Census Bureau is launching the Geographic Support Program Initiative, an integrated approach of improved address coverage, continual spatial feature updates, and enhanced quality assessment and measurement throughout the decade. The GIS Inventory (aka Ramona), the FGDC Addressing Standards, and boundary updates will factor into data sharing activities. To support these Federal efforts, ILGISA is implementing a volunteer led effort to coordinate statewide GIS data sharing using national geospatial framework layer standards.

CALL FOR SUBMISSIONS: We are accepting session and poster submissions for the Spring Conference. If you're interested in presenting, please complete the following SUBMISSION FORM. Submissions will be accepted until **March 9th**.

Check out the Spring Conference Pages for updated conference details.

*(**Cross Training** cont. from page 5)*

Still pretending you supervise six other competent, bright, creative and competitive people who manage 6 systems to provide quality work to a handful of "difficult" clients.

With the challenges of digital-sharing and more clients you need to cross train the team. Reasonable?

Let's rough out what that might be like. You'll need at least one training program for each of the 6 systems. You need to hire a qualified instructional designer to build each program, which includes flexible documentation, practice data sets, skill measurements, instructor guides and workbooks. Next you hire a competent trainer to conduct the sessions and guarantee that very high self-efficacy is transferred with the skill sets. The training program concludes with a competent, cross trained team, each member able to produce quality work from each of the six systems.

Besides being very expensive and violating Rule #4 "Training Can't be Stored," the program **prioritizes training over work** --- a career buster.

Military cross training systems function because "training" can be prioritized over work. For example, during peace times the Navy's largest expense is fuel and its second largest expense is training, around the clock training preparing for not-so-peaceful times.

CROSS UTILIZATION

Technical people gravitate to the details and content of the process; which explains why the concept of cross training is so popular, it is the details. However, we need to focus on outcomes, the collective performance; **which prioritizes work over training**. The result is called **CROSS UTILIZATION**, an inexpensive and easy to manage program because each system is covered by two people instead of everyone.

The first step is to list each person's strengths (see Figure 2). You can drive yourself crazy trying to fill out the list of strengths by yourself. Fortunately, there is a better way --- ask each person to give you their top three strengths. And then ask them to answer the following question "What subject matter do the others come to you for help or clarification, e.g. projections, hardware, software, cartography … ?"

A word of caution; do this 1 to 1 else the competitive nature of your group will muddy the results --- regardless of the environment, we still equate strengths with our pay check. You may even have one or two people who "think" of themselves as experts in everything and there is nothing wrong with that, just as long as their personality doesn't overshadow the others. You need a realistic picture.

List Strengths

	Function, System or Expertise "Go To Person" for …

Figure 2: List Top Three Strengths for each Person

The next step is to list each system or function with its primary person. Don't worry if some of your systems don't have a primary or if one person is primary to many. As their supervisor you'll be able to spread the responsibilities over time; that is the object of cross utilization.

Now you can construct your cross utilization plan. Map out a primary and a secondary person for each system and give the primary permission and the tools to train the secondary.

In this figure Kelly is the primary person for the "New System," and she is the secondary for "Projections & Transformations."

Primary & Secondary Assignments

Function or System	Primary	Secondary
The New System	Kelly	
Projections & Transformations		Kelly

Figure 3: Capture who is Primary on Each System and then Assign Secondary Roles

At the beginning you'll probably will not be able to fill this table out as neatly as shown. You may have one person "primary" to many systems and you may not have primaries or any secondary for others. But you have a list to start with and you can prioritize from it. Plus you'll be able to defend your development plan with one matrix.

The final step is to make sure your people have the tools they need, like practice data sets and task guides (the lowest cost, fastest form of training that can be easily changed

(continued on page 9)

*(**Cross Training** cont. from page 8)*

as the systems change). Other tools like hardware and software will become apparent as you progress.

Let's not get crazy with the details, and let's not put some arbitrary time-line on this effort. Focus on the outcomes. **Training gets done when you have time; it never has a higher priority than the work.**

Ask every prime to create at least four task guides for each system (see Figure 4). (This approach doesn't have to be limited to 4 task guides.)

1. List the outputs and the clients
2. List the sources and inputs (here is an opportunity to capture passwords).
3. Create a sequence that helps the secondary run the system.
4. List the specific tasks and techniques.

A task guide isn't magic, it triggers what you have already learned, and here is the beautiful part of the program, you have already created a buddy system; the primary trains the secondary. The training uses the practice data sets and the primary demonstrates and explains "How" the task guides are used.

With this approach and over time you'll have a primary, secondary, practice data and task guides for each system. Plus you'll be able to bring any new system on-line faster.

Creating the task guides may be problematic, so you might

(continued on page 10)

USGS CORNER

Scanning and Georeferencing Historical USGS Quadrangles

By Shelley Silch

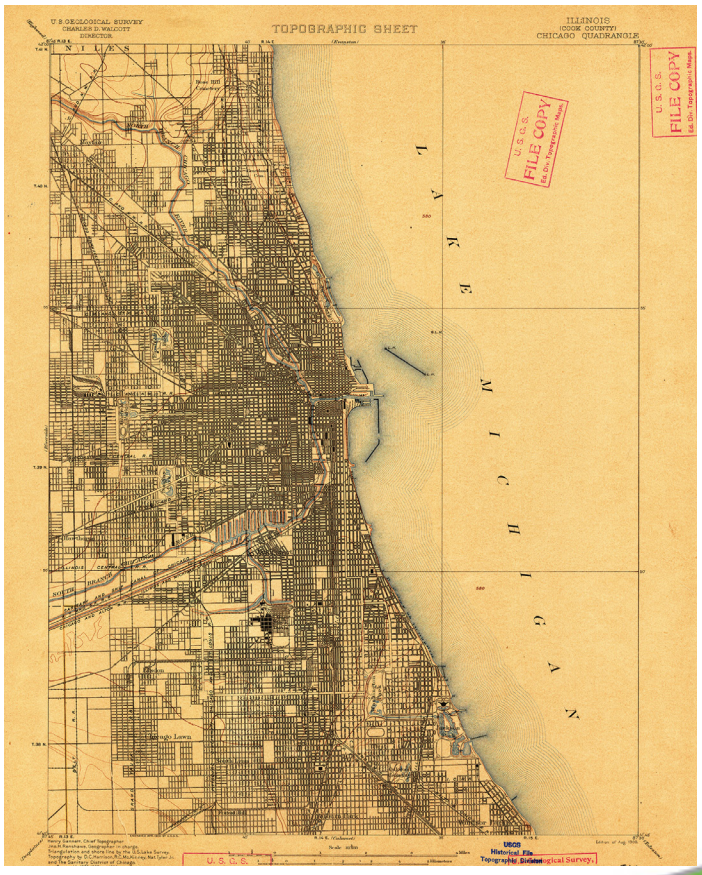
The USGS Historical Quadrangle Scanning Project (HQSP) is scanning all scales and all editions of approximately 250,000 topographic maps published by the U.S. Geological Survey (USGS) since the inception of the topographic mapping program in 1884. This scanning will provide a comprehensive digital repository of USGS topographic maps, available to the public at no cost. For more than 125 years, the USGS topographic maps have accurately portrayed the complex geography of the Nation.

When physical and cultural features change over time, maps are updated, revised and new editions printed. Although they are out of date, these historic maps are often useful to scientists, historians, environmentalists, genealogists, and others researching a particular geographic location or area. A series of maps of the same area published over a period of time can show how some areas looked as early as 1884, before current development, and provide a detailed view of changes over time.

The HQSP is accurately cataloging and creating metadata to accompany the high-resolution, georeferenced digital files representing the lithographic maps. Georeferencing in the digital file allows basic map analysis to be done, such as pointing and clicking on the map to determine distance, area calculation, coordinate points, and other information. Each map image is scanned "as is" and captures the current content and condition of each one. The project provides ready access to maps that either no longer available for distribution in print or are being replaced by the new generation of US Topo maps. Georeferencing in the map files enables the historic map to be imported into Geographic Information Systems so the maps can be overlain with other geospatial (map) data from other sources.

The Illinois files became accessible in November 2011 at the USGS Store web site (store.usgs.gov). (FREE downloading)

For information regarding the Historical Quadrangle Scanning Project, go to nationalmap.gov/ustopo/index.html



(*Cross Training* cont. from page 9)

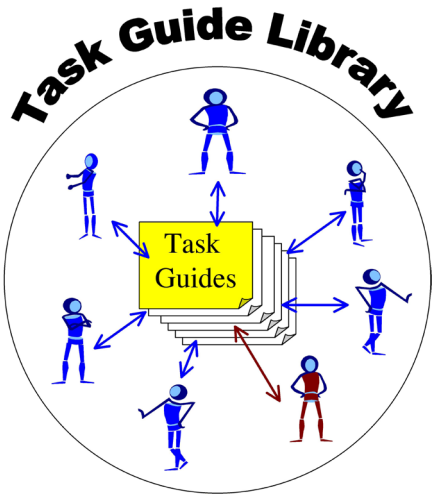


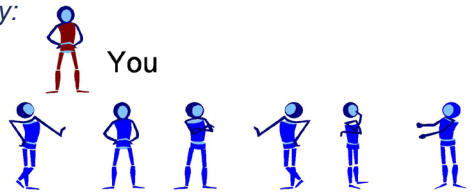
Figure 4: Create a Paper and Digital Copy of Each Guide, Indexed to System and Author

want to be able to offer a qualified third party coach or specific training on how to conduct a task analysis and how to build a task-guide. Each training session can be handled the same way we trained Kelly in the first example. Soon your people will be able to help each other with the details.

This article has focused on a supervisor and 6 technically competent individuals (emphasis on individual). But look at the larger picture --- a task guide library can cross-link a six person team, an entire organization or a loosely bound group of agencies. The sky is the limit.

[1] Bureau of Labor Statistics, Occupational Outlook Handbook, 2010-11 Edition, go to http://www.bls.gov/oco/ooh_index.htm for the index. The Geo Engineering jobs will grow ~13%, http://www.bls.gov/oco/ocos027.htm and the Geo Science and Geo Technician jobs will grow ~18% http://www.bls.gov/oco/ocos040.htm.

Key:



Jeff Palmer is a Training & Development Specialist at Learning & Technical Strategies, Inc. and can be reached at askjeff@LTS2Enable.US

NEWS FROM YOUR MIDAMERICA GIS CONSORTIUM (MAGIC) LIAISON

By Shelley Silch

The **2012 MAGIC Symposium** is just around the corner! It will be held April 22-26, 2012 in Kansas City, Missouri. The **Preliminary Program** is available and the deadline for early-bird registration is March 16, 2012. The Keynote speaker on Tuesday is Sean McGrath, CTO of Propylon. The Keynote speaker on Thursday is Brigadier General John W. Heltzel, Director of Kentucky's Division of Emergency Management and Deputy Commander Kentucky National Guard.

Have you signed up for the MAGIC LinkedIn site? Go to your Groups tab in LinkedIn and search the directory for "MidAmerica GIS Consortium."

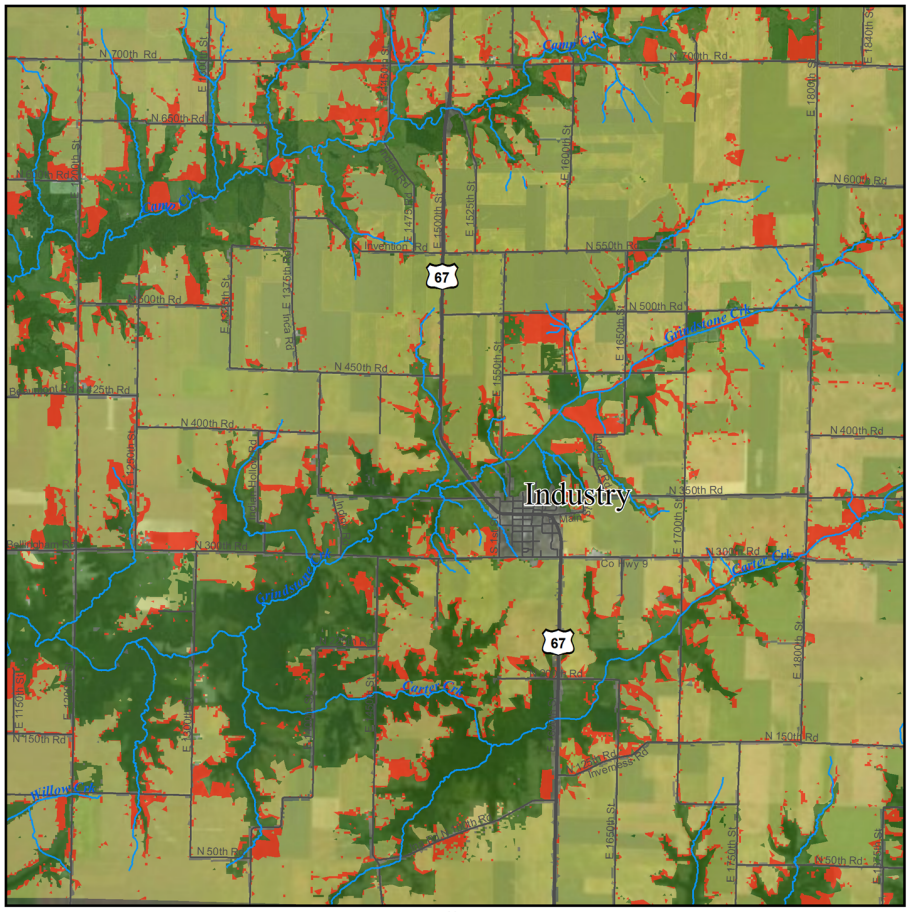
MAGIC Consortium awards are given out at each symposium for the following categories:

- **GIS Coordination**: Nominees have demonstrated outstanding contributions to GIS Coordination benefitting their community in the MidAmerica region during the past two years. Contributions may have been through leadership, technical innovation or regional consensus building.
- **GIS Service**: Nominees have demonstrated outstanding contributions to GIS Service benefitting their community in the MidAmerica region during the past two years. Contributions may have been through education, outreach, training, applications, projects or by successfully accomplishing grants that benefit their communities.
- **GIS Innovation**: Nominees have demonstrated outstanding innovation using GIS technologies to benefit their community in the MidAmerica region during the past two years. Contributions may have been through applications or projects that reflect creative utilization of GIS.

Each member state within MAGIC is allowed to cast a ballot from the nominations that are received. A committee was formed in Illinois by all those that expressed an interest in participating (a notice of interest was put out through various venues). The committee was comprised of Marty Bausano, St Clair County E911, Greg Johnson, Will County GIS, Ryan Meekma, Illinois State Water Survey, Sherrie Taylor, Northern Illinois University and Shelley Silch, USGS. The Illinois vote was taken and provided to the MAGIC Awards committee. I will let you know after the Symposium the winners of these awards. I would like to encourage you to nominate your fellow coworkers in the future for these awards. Also, if you would like to be included in any further committee work with MAGIC, please give me a call or email (217-328-9732, ssilch@usgs.gov)

MAP SUBMISSIONS

Land Conversion 2000-2009 (non-cropland to cropland) McDonough County, Illinois



Classification

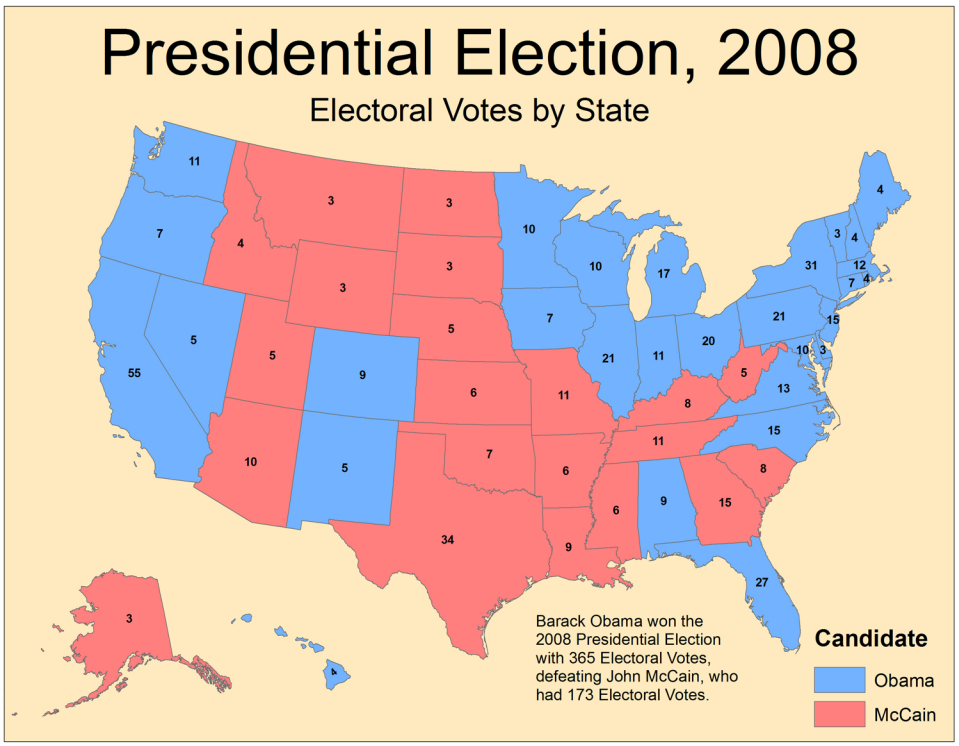
- Cropland (corn, soybean, wheat, other)
- Non-Cropland (forest, pasture, hay)
- Others (urban, water, road)
- Land Converted

Percentage of Converted Land

	2009	2000	Differential
Cropland	247,550 ac	221,800 ac	+11.6%
Non-cropland	107,219 ac	136,236 ac	- 21.3%
Other land	21,840 ac	18,573 ac	+ 17.6%

Data Source: National Agricultural Statistics Service, 2000-2009. The Census Bureau, 2010.

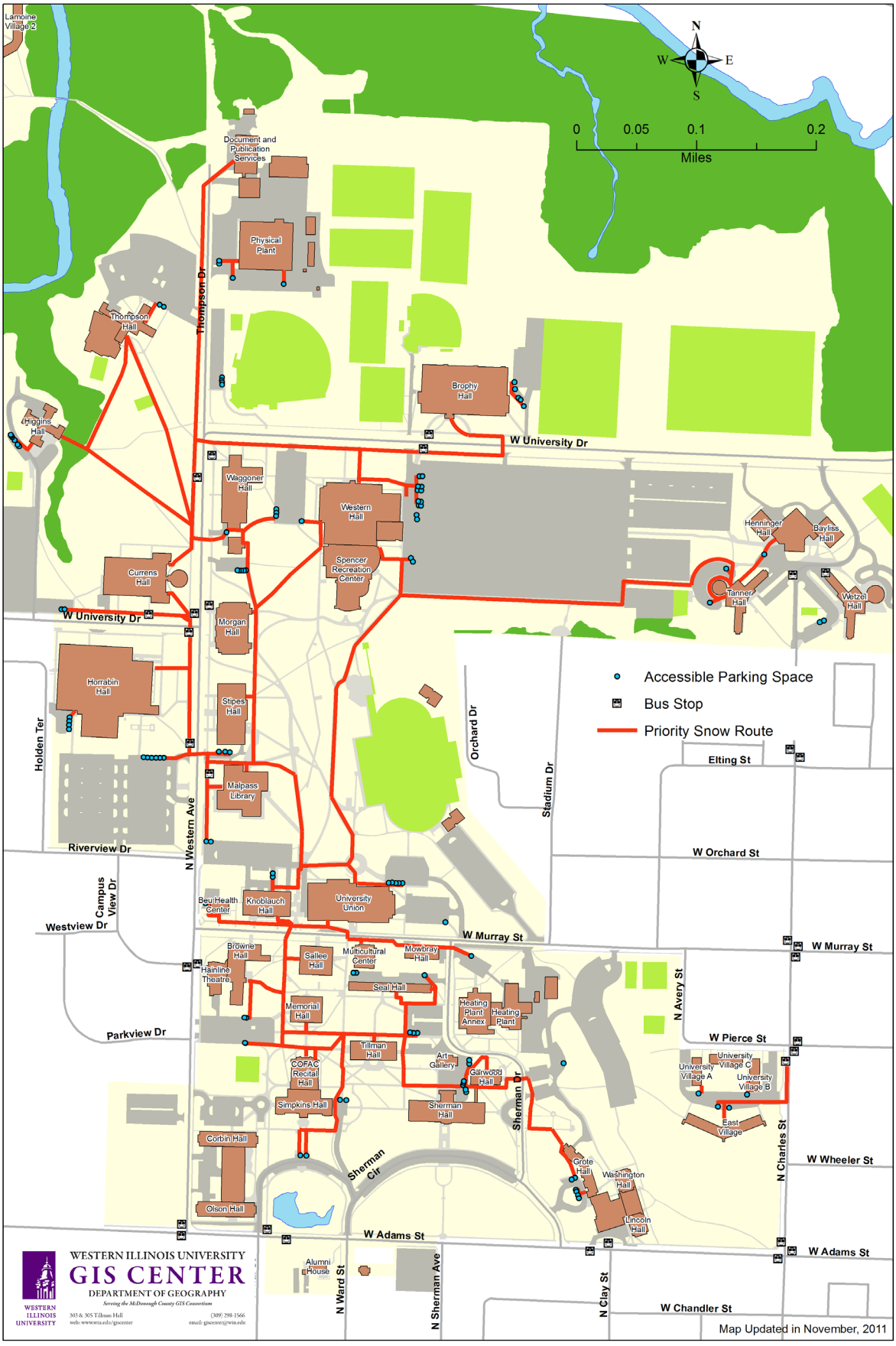
Steph Leblond
WIU Department of Geography
January 2012



Map Submissions are solicited from ILGISA members as a way to showcase what our members are doing.

The above map was created to estimate the acreage of non-cropland that has been converted to cropland in the county from 2000 to 2009, in relationship to the increase of crop price and was submitted by Steph Leblond, *Graduate Student/GIS Assistant*, Department of Geography, Western Illinois University.

The map to the left was submitted by Caleb Mackey, *GIS Assistant*, Western Illinois University GIS Center.

The map on page 12 was submitted by Keisuke Nozaki, *GIS Specialist,* GIS Center, Western Illinois University.

Priority Snow Route