CONFERENCE UPDATE

2014 promises to be an exciting year as ILGISA restructures its conference and training offerings. We believe these changes directly reflect the desires of our members and allow us to offer more educational and networking opportunities for all GIS professionals across Illinois now and in the future.

To begin with, the annual conference will take place at the Hilton Lisle / Naperville on October 27 – 29, 2014. With the expanded schedule, we will be able to offer more workshops and session presentations than ever before. Other events including the ESRI Night, GeoLounge our Vendor showcase area are also planned.

Something I am very excited about for 2014 is our Regional Meetings. The regional meetings will play the same vital role in the education and training of our members, one of ILGISA’s core goals. It is our intention to have the Regional Meetings move throughout the state and compliment the location of the Annual Conference. We have three Regional Meetings planned for 2014, tentatively scheduled for May, August and November. Effingham, Springfield, and Champaign are three sites being considered although details are being finalized at this time. It is hoped that these regional meetings will allow us to more frequently offer the same high quality sessions and workshops our members have come to expect. It also allows us to increase the potential networking and sharing of ideas amongst our members.

All of these opportunities are driven by your involvement and participation. If you have a project you are working on, or have devised a method you think others might find useful, I encourage you to submit it for consideration. The Call for Content is on our web site, and is open continuously for all levels of participation (Conference, Regional Meeting, etc.).

Further details about the Conference and the Regional Meeting will be shared in our monthly ILGISA Association News email. I look forward to seeing you at one or more of our future events.

Andrew Vitale
ILGISA President-Elect
Conference Committee, Chair

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– SAVE THE DATE –

2014 ILGISA CONFERENCE

October 27 – 29, 2014
Hilton Lisle/Naperville
3003 West Corporate Avenue
Lisle, Illinois

NOMINATIONS SOUGHT FOR ILGISA BOARD OF DIRECTORS

Have you considered serving on the Illinois GIS Association (ILGISA) Board of Directors? The ILGISA Nominating Committee is currently seeking nominations for its Board of Directors. There will be four openings on the ILGISA Board: President-Elect and three Board of Directors. Election results will be announced at the ILGISA Conference in October.

Nominations for the 2014-15 ILGISA Board of Directors are due no later than July 10, 2014. If interested, please complete the Nomination Form at www.ilgisa.org or contact ILGISA at contact@ilgisa.org.
My name is Jason Sheldon and I have recently joined the ILGIS A Board of Directors and Publications Committee. I’ve been the GIS Coordinator at the City of Naperville for 6 years. Prior to that, I worked as a GIS Programmer/Analyst at The Sidwell Company. I’ve long enjoyed reading GIS Notes over the years and am excited at the opportunity to serve as the Editor this year. I would like to thank the previous editor Keisuke Nozaki for all of his help as I learn the ropes. I’d also like to thank Jeffrey Palmer for his help on the Publications Committee. This is a year of great change for ILGIS A, and I’m sure we’ll see that reflected in GIS Notes as well. I’m truly excited about the possibilities that recent technological advances have brought to the field of GIS. As a society we are changing the way we interact and communicate. This brings challenges as well as new opportunities for organizations like ILGIS A. I’m excited to explore different forms of communication over the next few years. I’d like to extend a thank you to all that submitted articles for this issue of GIS Notes. As always, any suggestions and comments you might have about GIS Notes are most welcome. We are always looking for new contributors so if you are interested in writing an article please let us know.

Thank you,
Jason Sheldon
EDUCATOR’S CORNER:

A number of educational issues, challenges and opportunities are currently facing the geospatial technology community in developing exemplary geospatial programs and curriculum in the State of Illinois. The ILGISA Education Committee is currently developing a set of informational resources or white paper to help inform, engage, and disseminate potential partnership opportunities in promoting the geospatial industry through both higher education and K-12. Issues relating to the following themes are likely to take the forefront in helping ILGISA members with connecting education and industry in developing the next generation of geospatial technicians, analyst and programmers:

a. Esri State-wide Site License with K-12;

b. ILGISA’s Webinar Series;

c. Regional ILGISA Training and Awareness Events;

d. Overall educator needs in developing exemplary geospatial technology courses and curriculum.

The ILGISA Education Committee plans to disseminate a short survey to capture the pulse of educators and members in ILGISA relating to needs and concerns to help assist them with their work with students at diverse levels of education. Specifically, the goals of the survey are to capture data driven measurements on the specific services, training, and outreach support that ILGISA could assist educators with in developing strong geospatial technology programs/classes. In addition, ILGISA is looking for new ways to partner with both higher education and K-12 institutions in developing the State’s geospatial literacy, awareness, and application of data with developing our current and future workforce. Please look in the near future for short surveys and other outreach efforts by ILGISA’s Education Committee Chair, Mike Rudibaugh, using the following contact information relating to any questions, comments, or concerns you might have with this agenda.

Mike Rudibaugh, Chair of the Education Committee
Email: mrudibaugh@ilgisa.org

U.S. CENSUS BUREAU ACTIVITIES

By Gail A. Krmenec
U.S. Census Bureau, Geography Division

County Consolidated Boundary and Annexation Survey

Consolidation of the Census Bureau’s Boundary and Annexation Survey at the county level provides the opportunity for all levels of government to be more efficient, save taxpayer dollars, and improve legal boundaries while contributing to the National Data Spatial Infrastructure.

The U.S. Census Bureau conducts the Boundary and Annexation Survey annually to collect information about selected legally defined geographic areas, including legal boundaries and names of governmental units. The Census Bureau uses the boundary information collected in the BAS to tabulate data for the decennial and economic censuses, and the annual estimates and surveys, including the American Community Survey and the Population Estimates Program.

To reduce the burden on local governments and avoid duplication of efforts, the Census Bureau offers consolidation agreements to counties that are interested in submitting boundary changes for the legal governments (incorporated places and minor civil divisions) within their jurisdiction. The consolidated BAS program allows counties to report boundary and feature changes for some or all of the legal governments within their county. Once a local government agrees to the consolidation, the local government will no longer receive BAS materials. Instead, the county BAS respondent will be responsible for providing the Census Bureau with all boundary updates.

There are a number of advantages to consolidating the Boundary and Annexation Survey at the county level, and not just for the Census Bureau. Many counties are able to participate in the BAS digitally rather than submitting boundary changes on paper, which many smaller governments do because they do not have access to GIS resources. Digital BAS participation usually helps to improve boundary accuracy because imagery and parcel data can be used as a backdrop for comparison against TIGER boundaries to determine needed legal changes (annexations) and/or corrections.

From an administrative standpoint, consolidation also has advantages. At the county level, the Boundary and Annexation Survey contact is often someone affiliated with the county GIS department, which offers continuity of contact and familiarity with the BAS procedures and requirements. Many smaller local jurisdictions may lack the personnel or geography expertise that can facilitate BAS participation. Response at the county level facilitates cooperation between individual governments and the county, especially in boundary inventory and maintenance. Eliminated are conflicting

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INTRODUCTION TO ESRI MAPS FOR OFFICE

Keisuke Nozaki, GIS Specialist
Western Illinois University GIS Center

Introduction
Esri released app called Esri Maps for Office in the spring of 2013 as a part of ArcGIS Online subscription. For those who would like to get familiar with this app before purchasing may take advantage of ArcGIS Online free 30-day trial. In addition, users with ArcGIS for Desktop licenses on maintenance are entitled to use ArcGIS Online with limited service credits. Esri Maps for Office allows users to create a dynamic map from tabular data on the spreadsheet and share the information with others who do not have ArcGIS software. The only requirement besides ArcGIS Online subscription is Microsoft Office 2010 or above (particularly Excel and PowerPoint) and an Internet connection. Help and installation files (approximately 76MB) are available at the Esri website (http://doc.arcgis.com/en/maps-for-office/).

Functionality
Once installed, there will be a new tab called Esri Maps added in Microsoft Excel (Fig. 1).

The first thing to do is to sign into ArcGIS Online. Then users may click “Insert Map” and view a general map of the United States. In addition to moving and resizing the map, it is possible to change basemap prepared by Esri such as street, aerial, and topographic maps. The next step would be to add Excel data. After selecting table or cell range, users need to define the location type like address, latitude/longitude, and zip code (Fig. 2). Please notice that ArcGIS Online geocoding service is no longer complimentary. According to the Esri website (http://www.esri.com/software/arcgis/arcgisonline/credits), it requires 40 credits per 1,000 geocodes. The amount of credits varies depending on the user, and please contact Esri for more information about service credits.

Once the Excel data is added to the map, the layer shows up in Map Contents. Similar to ArcMap, users may change symbols, categorize by field, adjust transparency, and configure pop-ups when identifying features on the map. It is also possible to search and add feature services including census demographic and economic data from ArcGIS Online gallery or own organization. On the Layer tab, there are additional functions such as select records, cluster features, set visible range, and enrich layer. The Analysis tab offers powerful tools like find hot spots and add heatmap (Fig. 3). Once the map is complete, users may copy the map image to the clipboard, share layer or map through ArcGIS Online, or insert the map in the Microsoft PowerPoint slide.

Conclusion
Esri Maps for Office with self-explanatory online help is relatively easy to use for non GIS users. They are able to create and analyze maps within Microsoft Excel. However, it is a part of ArcGIS Online subscription which requires a minimum of $2,500 per year. Users with ArcGIS for Desktop licenses on maintenance may also use this app but need to contact esri if they would like to use more than 100 service credits. It is not easy to predict who will take advantage of this product. The author argues that web maps in ArcGIS Online seem to have adequate functionality and do not require additional software installation. Software installation for each computer would be an additional task, and this app seems relatively heavy and unstable (it crashed several times on the author’s computer which runs ArcGIS Desktop). Further development regarding adding unique features would be expected, and the author will keep an eye out for relevant Esri updates and workshops.
USGS CORNER – BITS AND PIECES

Shelley Silch, Geospatial Liaison for Illinois, US Geological Survey

Landsat 8 Celebrates First Year of Success

Full Landsat 8 scenes can be downloaded at no charge from EarthExplorer (http://earthexplorer.usgs.gov), GloVis (http://glovis.usgs.gov) or the LandsatLook Viewer (http://landsatlook.usgs.gov).

EarthNow

Check out the location of Landsat 7 (live) as it acquires imagery. http://earthnow.usgs.gov/earthnow_app.html?sessionId=0ee3f2b4e3cd22f0e9383cc029d1f0b30511

Thirteen Years of Publication:

The December edition of the National Hydrography Dataset (NHD) Newsletter marks the start of the thirteenth year of publication. The monthly bulletin has highlighted people and programs involved in the National Hydrography Dataset and Watershed Boundary Dataset. To this point, more than 720 pages of information have been written about these programs. Newsletter readers are encouraged to send in articles on their work to help spread the word of how the NHD and WBD are contributing to water management and science. To view past newsletters go to http://nhd.usgs.gov/newsletter_list.html

NHD Photo of the Month: This month’s photo was submitted by Jon Becker of the EPA. It is the Okefenokee Swamp in South Georgia. More specifically it was taken on the Suwannee River in the Okefenokee National Wildlife Refuge just downstream of Stephen Foster State Park in South Georgia.

WaterAlert
http://maps.waterdata.usgs.gov/mapper/wateralert/

The U.S. Geological Survey WaterAlert service sends e-mail or text (SMS) messages when certain parameters, as measured by a USGS real-time data-collection station, exceed user-definable thresholds. The development and maintenance of the WaterAlert system is supported by the USGS and its partners, including numerous federal, state, and local agencies.

USGS News: Mapping
News about topographic maps, The National Map, remote sensing, geography, and GIS. One-way email.

USGS Social Media
http://www.usgs.gov/socialmedia/

One topic:

Additional topics available (ie USGS News: Everything We’ve Got, USGS News: Data, Tools and Technology, USGS News: Natural Hazards)

ILLINOIS GIS ASSOCIATION

Congratulations to the following members who have obtained their GISP Certification

Brett Addams, CDM Smith
Shannon J. Dolte, McHenry County
Michael Mullins, Kane County
David L. Nixon, Critigen LLC

David Peters, WinGIS
Ryan Pettit, Parsons Brinckerhoff
Tara Whippo, City of Rockford
NEWS FROM MID AMERICA GIS CONSORTIUM (MAGIC)

By Greg Johnson

The 2014 MAGIC Symposium is less than two months away. It will be held April 27-May 1, 2014 at the Westin Crown Center in Kansas City, Missouri. The biennial symposium will feature short courses, technical sessions, panel discussions, and two keynote presentations. Deadline for early-bird registration is March 14, 2014. The Preliminary Program is available on the 2014 Symposium website. Visit http://www.magicgis.org/magic/symposiums/2014/index.cfm.

MAGIC provides a focus for:

- Establishing linkages between GIS users having similar application interests
- Facilitating communication and data sharing across levels of government and between government, industry and academia
- Promoting spatial data standards and land records modernization
- Promoting collaboration and advancement of geospatial technologies

In addition to sponsoring the biennial Mid America GIS Symposium, the Consortium also sponsors important GIS projects around the region. Projects can be industry specific, such as emergency management, remote sensing and addressing, or they can be related to GIS policy, standards and architecture. Visit http://www.magicgis.org/ for more information.

MAGIC REPORT

By Shelley Silch, US Geological Survey

The 2014 Symposium will be held at the Westin Crown Center April 27 – May 1, 2014 in Kansas City, Missouri.

MAGIC 2014 Short Courses
http://www.magicgis.org/magic/symposiums/2014/scourses.cfm

101. Introductory Geoprocessing with Python/Introduction to Python for ArcGIS (Lab)
102. Getting to Know ArcMap...Just the Basics (Lab)
103. Best Practices for Implementing ArcGIS Online (Lab)
104. Remote Sensing A to Z (Class)
105. LiDAR Track (Class)
201. Introduction to Working with Point Clouds (Lab)
202. Intermediate Geoprocessing with Python - (Lab)
203. Introductory GPS and Mobile GIS (Class)
204. Introductory Geodatabases (Lab)
205. GIS and Mapping A to Z (Lab)
206. ArcGIS Platform Best Practices (Class)
207. Utility and Public Works Using GPS and Mobile GIS Workflows (Lab)
301. Advanced Point Cloud Processing and Analysis (Lab)
302. Advanced Geoprocessing with Python (Lab)
303. Census 2010 and American Community Survey (Class)
304. Advanced Geodatabases (Lab)
305. Introductory ModelBuilder (Lab)
306. Spatial Statistics (Lab)
307. Transportation GIS (Class)
308. Open Source GIS (Lab)
401. HAZUS Flood and Earthquake Tools (Class)
402. JavaScript Web Mapping API (Lab)
403. Cloud GIS (Lab)
404. US National Grid (Class)
405. Cartography (Lab)

The annual MAGIC Clearinghouse Summit is scheduled to take place this year in Champaign, Illinois.

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subscribe MAGICPUBLIC-L YourFirstName YourLastName
FYI: PUBLIC DOMAIN SPATIAL DATA — FREE(?)

By Jeff Palmer

This article will focus on where we can find free(?) Geo-Spatial Data commonly called the Public Domain. The article can’t make you an expert but it will give you an awareness of our unique Geo-Spatial Public Domain. We’ll bring forward some features of our Public Domain, but what you learn probably will not apply to other Public Domains.

In its purest form, a work is in the Public Domain if its copyright has expired or the owner has waived all rights and there are no other licensing restrictions.* Since we often download geo-spatial data from many sites, we’ll need a more useful definition.

What is your definition of a Public Domain? How do you know you are in a Public Domain? Just because there are download links on a web page doesn’t mean that you are in a Public Domain. What definition can we use? For example, my brother believes that if he can access data without “hacking,” it is in a Public Domain. For the most part he is right, but as my research continued and my frustration increased, it became clear that there is no single definition of Public Domain. The best I was able to do isn’t so much of a definition as it is a list of criteria. If you have all three you are in the Public Domain.

- You have access
- You may use the data & information, and
- No one has to authorize your use

Our GIS work-products must begin with good data. Since it takes time & money to collect good data, why risk using Public Domain data (think tables) or Public Domain information (thinks layers)? Well, probably to save time and money. Right? But at what risk?

Suitable, maybe not perfect data exist within the Public Domain and is free of financial costs, but it does take work on your part, at least three steps.

First up is the task to find it.‡ This task can be very frustrating and it might take a strong focus sometimes taking days. There is NO single listing of the available Public Domain Data, no state-wide index nor is there any national or worldwide listing. Sites that I have used seemed to be organized more for general location and there is no database structure where one can query the Meta Data, for say scale.§

Second it is up to you to verify that it fits your project requirements. Is it suitable? Can you trust it? Is it politically correct? And …

Does it have a scale that you can use or one that you can work around?

• Is the projection known?
• Is the time frame compatible?
• Where did it come from?
• Who did the work?
• How was the data collected?
• Is it accurate?
• Are the licensing restrictions workable?

Third you have to “test” its efficacy. Will it produce the desired effect in your workflow? A test that you do preferably up front.

But like everything else there are wrinkles and some of these wrinkles can fold over and trap you. For example, a Public Domain can only exist where there is an enforceable copyright law.¶ If a country has no copyright law, then a Public Domain can’t exist. Downloading from a country that has no copyright means that you are copying “The Country’s Property” --- downloader beware.

Another wrinkle might lull you into believing that you are in the Public Domain when you are not. A point of fact, popular mapping applications like Maps, Yahoo, MapQuest, Google, Google Earth and so on function like you’re in the Public Domain. For example, you can use one of there base maps, add objects and features, modify attributes, save and even export your work. But their data, objectives, attributes and your map (a derivative) are NOT in the Public Domain. Don’t believe me, just read their terms before you click on the “accept” button.

One final wrinkle worth knowing about are the restrictions that are attached to any Public Domain download. Just having access to Spatial Public Domain data, objects, features, attributes and even finished maps without any prior authorization does not mean that the download is free of restrictions. And here is a problem we need to fix: typically the restrictions are listed in the Meta Data, but not always. They may be in a text file in the download. The problem is that we can’t look at a file name or even a description of the file and “see” that there are restrictions. Why is that important?

You can spend hours, maybe days validating the Public Domain data only to find that it is so tightly restricted that you can’t use it. Also any restriction has to be passed with all derivatives. You may have 10 layers, 9 are free of any restriction, but one has a non-commercial restriction. You entire map, all 10 layers must be passed with the non-commercial restriction.

What to do? We need a thumbnail that flags the data with the licensing restrictions, thus avoiding the time to investigate.

Fortunately our friends at Creative Commons§§ have developed several continued on page 8
FYI: Public Domain
continued from page 7

definitions for licenses along with icons, which could be used as thumbnail. Now you and I can "see" the restrictions before we even download the data.

For example, this is a Creative Commons Icon describing the underlying license: you must keep the author and all other original attributes, you must use this non-commercially and you can't create any derivatives.

Let's review: My objective wasn't to make you an expert but to give you a working awareness of the spatial Public Domain some of its variations.

There is no single index to the Public Domain Data and there should be.

If you can access and use spatial data & information without any authorization, then you are probably in the Public Domain.

Since your work will carry your name forever, you should take as much time as possible to qualify geo-spatial data or information as it is found in the Public Domain? The process isn’t easy, it takes work, there is no magic; but the benefits can be significant. Including Public Domain data and information can kick start your project and save time and money. With the extra time and money you can focus on formatting the data into valid useful information.

Now it is your turn. You have the talent and skill to upload some of your work to the Public Domain and every time you do, know that I am proud of you, you're a true professional.

Always remember that I have made mistakes so you don’t have to.

Jeff
askjeff@LTS2Enable.us

Endnotes
* From the purest form to “Private” seems to be a gray scale where white has no restrictions and black is so restricted that you would have to hack the server to get at it, please don’t.
† Several definition sources
Creative Commons Search [http://creativecommons.org/?s=public-domain]
Linux PUBLIC DOMAIN Definition [http://linfo.org/public_domain.html]
US Copyright Office Works Enter Public Domain [http://www.copyright.gov/pr/pdomain.html]
US Copyright Office Examples [http://www.copyright.gov/docs/domain.html]
‡ Not having access to geo-spatial data doesn’t seem to be an issue any longer, finding the "right" data is.
Here are several useful Geo-Spatial Data Portals:
Illinois Geospatial Data Clearing House [http://crystal.isgs.uiuc.edu/nsdihome/]
Illinois GIS Data Providers [http://crystal.isgs.uiuc.edu/nsdihome/web-docs/data-list.html]
Indiana Geographic Information Office [http://www.in.gov/gis/datashare.htm]
Maps and GIS Resources: United States, by State (thanks to University of Oregon) [http://library.oregon.edu/map/map_section/map_State-datasets.html]
Maps and GIS Resources: Transnational and Global (thanks to University of Oregon) [http://library.oregon.edu/map/map_section/map_globaldatasets.html]
§ Query (Select … From … Where scale="1:10,000") will eliminate all other scales from your investigation to find suitable data
# Creative Commons [http://creativecommons.org/]
Creative Commons Guide [http://wiki.creativecommons.org/images/6/6d/6licenses-flat.pdf]
** Creative Commons Icon Downloads [http://creativecommons.org/about/downloads]
U.S. Census Bureau Activities

continued from page 3

BAS responses by two different jurisdictions in a county regarding the same geographic area and the subsequent follow-up contacts required for rectification and documentation. Further, when BAS is consolidated at the county level, the Census Bureau interacts with a single government, including follow-up contacts, which is more efficient than individually contacting a relatively large number of jurisdictions.

As a longer range benefit, improved boundaries will hopefully result in less labor intensive redistricting efforts by local governments because the Census Bureau’s boundaries more closely align with local government boundaries.

There are numerous counties that have already established County Consolidated BAS agreements. Neighboring state Wisconsin already has 34 of the 72 Wisconsin counties participating, with the other counties expected to follow. In Indiana, all 92 counties participate. The county consolidation effort has just begun for Illinois: Clinton, Livingston and Morgan Counties are already participating, and nine northeastern Illinois counties have been approached about consolidating. In addition, there are currently 7 states that have some type of Consolidated Boundary and Annexation agreement with the Census Bureau at the state level, including Alaska, Georgia, Kentucky, Maine, Massachusetts and Michigan, and Utah. Georgia and Michigan submit an inventory list of governments that have enacted legal boundary changes during the year; Utah submits their governments’ geospatial changes, while the other states perform all aspects of BAS consolidation.

The deadline for establishing a consolidation agreement for the 2015 Boundary and Annexation Survey is August 1, 2014.

If you are interested in learning more about county consolidated BAS or establishing a consolidation agreement, please don’t hesitate to contact me at gail.a.krmenc@census.gov or at (630) 288-9258. I would be happy to answer any questions and initiate the BAS consolidation process for your county.

Geographic Support System Initiative: Working with Partners for Enhanced Data Management

The Census Bureau’s Geographic Support System Initiative (GSS-I) is underway in Illinois. We have begun collecting geospatial data to support the continual update of our MAF/TIGER System (Master Address File/Topologically Integrated Encoding and Referencing system). Our goals, through the GSS-I, are to decompress the time frame in which geospatial updates to MAF/TIGER are typically made before a decennial census, make it easier for our partners to work with us, and most importantly, maintain a complete and accurate address list to support not only the Decennial and Economic Censuses, but also our ongoing surveys, the Population Estimates program, and the annually-produced American Community Survey estimates.

Through the Geographic Support System Initiative, the Census Bureau acquires street centerlines, address points and/or parcels to improve the completeness and accuracy of the Master Address File and update TIGER linear features. We accept partner files in their native format, assuming the files meet the minimum address and feature guidelines. These guidelines are available on the Census website at http://www.census.gov/geo/www/gss/gdlns/Optimal_Metadata_Content_Guidelines_v0.6.pdf.

If you have not yet created metadata for your data holdings, the GSS-I presents yet another reason to do so.