

PA GIS CONFERENCE

GIS: Impacting Everyday Life

May 22-23, 2012



DRAFT Agenda as of February 8, 2012
Conference Hotel is Holiday Inn Harrisburg/Hershey
www.pagisconference.org

Conference Host – Brady Stroh

May 21 (Monday)	
1:00 - 4:00	Pre-Conference Workshop at HACC (Offered by Photo Science)
<p>**The pre-conference workshop will provide a basic introduction to remote sensing and discuss and demonstrate the use of Pennsylvania's data assets (i.e. PaMAP Orthos, LiDAR) and other local data sources to support the development of new datasets such as building roof print, impervious surfaces, land cover, green infrastructure and other thematic data layers through the fusion of Pennsylvania's readily available datasets.</p>	
May 22 - 23 (Tuesday and Wednesday) ESRI's Learning Lab will be on-site	
<p>Land Record/GIS Integration—The PA Model Pennsylvania with its Uniform Parcel Identification (UPI) statute is a leader now in Land Records and GIS Integration. This session will feature three case studies of Land Record/GIS integration and will provide updates on a three-year, national initiative. For counties that have implemented a UPI program this session will describe what's next? For those Counties that have not implemented a UPI program come and find out what is possible.</p>	
<p>Addresses the Locus of GIS—Current Thinking Addresses and addressing are still often misunderstood given their role in a successful GIS implementation. This session will detail some of the many facets of addresses and addressing that need to be handled within a GIS context. The session will summarize the varied interest groups all with a perspective on addresses.</p>	
<p>Automated QAQC with ArcGIS 10 GIS DataReviewer <i>Case study at Bucks County, PA</i> Explain some of the benefits and functionality of the ArcGIS Data Reviewer extension for ArcGIS 10 Desktop, Discuss the types of checks that can be used and show some specific use cases pertaining to Land Records and Road Centerline dataset maintenance and Demonstrate how a web application can be used to show results to end users allowing for increased communication, visibility and coordination.</p>	
<p>Geographic Information Systems in the cataloging and presentation of natural resources. This presentation will detail the process used and the challenges encountered with attempting to georeference maps from nearly 50 years ago. Presentation attendees will learn about the historic research, georeferencing methodologies and cartographic techniques used to present the results of the project.</p>	

Using Community Analyst to Support Decision Making

Community Analyst is a software-as-a-service (SaaS) mapping solution that allows users across your organization to quickly discover and explore the important facts about any area to help develop the right policy strategies, convey important information to those who need it, and ultimately improve communities. This session will provide an overview of how using thousands of demographic, health, economic, education, and business data variables, combined with instant reports and interactive color-coded maps, can be applied to making better policy decisions and recommendations. Attendees can expect to learn about Community Analyst and how it can be used to improve decision-making, as well as detailed information about the included datasets and how to use it.

Leveraging the power of ArcGIS Online

Abstract: ArcGIS Online is a cloud-based geospatial content management system for storing and managing maps, data, and other geospatial information, built on Esri's cloud infrastructure. This session will show you how to create and share maps that can be accessed by anyone through a browser, a mobile device, ArcGIS for Desktop, or a custom application. Also demonstrated will be tools to manage geospatial content through an easy-to-use catalog of items or groups, and/or share your content publically or only with specific groups. Attendees can expect to learn how to extend their reach and transform their GIS into useful information products that address specific needs, including a deeper view into topics like tips and tricks for authoring better web maps and working with ArcGIS Online and leveraging the web map ecosystem.

What's Coming with ArcGIS for Desktop and Server 10.1

The 10.1 release of ArcGIS brings many exciting functionality enhancements that will improve the way you do GIS. This session will highlight the new capabilities for both Desktop and Server functionality.

Desktop users will be interested to learn about new sharing and publishing capabilities, improvements to editing productivity, spatial analysis advancements and new cartographic tools and techniques.

Role of GIS in Assessing Impacts of Marcellus Shale Development on Small Streams

This presentation will demonstrate the role GIS is playing in the Institute for Energy and Environmental Research's (IEER) study of water quality impacts on small streams due to Marcellus Shale Development.

Mapping Ecological Labels

Environmental criminologists have asserted that neighborhoods within a city earn a reputation, or an ecological label. To date, there is little research on the idea of ecological labels or why areas are labeled good or bad. The goal of this study was to determine what defines a "good" area and a "bad" area in a city. GIS was utilized to map the specific locations of the good and bad labels in an urban neighborhood based on resident responses.

From this presentation, participants will be able to understand how crime and other factors can create ecological labels, identify the spatial relationship between hot spots of crime and ecological labels, Discuss the use of GIS in neighborhood studies and crime analysis.

Supporting Guide Rail Assessment using GIS technology

The presentation will focus on the services provided in support of the development of a Guide Rail Management System.

Objective for Audience:

1. Develop a clear understanding of how GIS technology helped to directly address the goals of the project.
2. Develop an understanding of how this approach could potentially be used for other guide rail management projects or projects similar in nature.
3. Develop an understanding of any obstacles encountered during the project and how they were overcome.
4. Develop an understanding of some of the key lessons learned from the project.

Leveraging National Service Programs to Map Recreation Resources

- Local government and non-profit agencies will learn how they can collect recreation resource data at a low cost
- How to implement a model to capture recreation resources utilizing geospatial technologies, including GPS
- The potential to provide recreation resource data to the public through existing web mapping technologies.
- The benefits of leveraging college students, national service program members, and other volunteers to capture recreation resource data

Mapping the fallen: Theorizing police homicides in Baltimore

From this presentation, participants will be able to:

1. Describe and discuss criminological theoretical perspectives of violence and crime;
2. Identify macro-level factors related to police homicide in Baltimore;
3. Identify the spatial distribution of police homicide, poverty, mobility, diversity and population in Baltimore; and
4. Discuss ways in which GIS software can be used by police departments.

PennDOT Local Roads and Bridge Mobile Data Collection

Originally planned to be a paper based data collection process, PennDOT undertook a pilot project in McKean County to explore the functionality of GIS based mobile data collection for local road and bridge attributes, as well as updating locations of the bridges. The success of this pilot project has allowed PennDOT to begin development of a state wide local road and bridge project to collect planning information on local roads and bridges for the entire Commonwealth.

This project is a real world application, based on real world needs for data that integrates with business systems within PennDOT. The audience will understand the process from beginning to end, including a pilot project where technology was tested and work flows validated.

Analyzing Revaluation Results and Process with GIS

The Lehigh County Assessment Department is in the process of a property revaluation process. They are utilizing ArcGIS to evaluate the work conducted utilizing the Value Analysis Dashboard, a free template application from ESRI available on the Local Government Resource Center. This dashboard allows the Assessment Department to evaluate the previous assessed values with the new assessed values at both a parcel level and at the tax jurisdiction levels -municipality and school district. This session will describe the implementation of the template, the impact it has had on the revaluation results, and lessons learned throughout the process.

Pennsylvania Broadband Service Provider Portal: Spatial Data Update On-line Application

For the Pennsylvania Broadband Mapping project, the Commonwealth of Pennsylvania and Michael Baker Jr., Inc. have implemented a online spatial data update application called the Broadband Service Provider Portal. This portal streamlines the communication and gathering of broadband service availability data updates from broadband service providers. This presentation will specify the advantages of the On-line Data Updating through Broadband Service Provider Portal

Trends in 3D Community Visualization and Virtual Worlds

The goal of this technical presentation is to explore some the issues related to the development of the world's we have built in St Michaels , Chestertown, Easton, Queen Anne's County (Maryland), the Revolutionary era Pluckemin Artillery Cantonment (New Jersey), and worlds we are envisioning building. Attendees will Become familiar with many software tools used to build virtual worlds and 3D animations, Learn some of the key technical obstacles inherent with these tools. And envision what you could do with these tools in your community.

Using GIS to identify traffic safety issue corridors

This presentation will demonstrate using GIS to identify traffic safety issue areas

for the Lehigh Valley MPO which includes Lehigh and Northampton Counties, PA. The presentation will include analysis of traffic crash incidents and aggregating this information by state routes to identify corridors for potential safety improvements. Finally, this information will be aggregated by municipality and made available for viewing using the web through an ArcGIS API for Flex application. The presentation will include:

- Preparing data for analysis in the GIS.
- Creating a route system and mapping crash incidents using the Dynamic Segmentation process. PENNDOT's route, segment and offset information will be used to map crash incidents.
- Reviewing various crash characteristic maps including safety issue area intersections, pedestrian-related crashes and bicyclist crashes including reviewing crash frequency and severity.
- Developing a final high priority crash corridor map.
- Updating crash information to an ArcGIS API for Flex application to view crash information by municipality.

Tools for Integrating Photographs with GPS and GIS

"A picture is worth a thousand words". In this day of technology we all know the value of photographs and everyone is clicking away with cell phones, point and shoots, and digital SLRS. In the field of GIS photographs are no less valuable. The problem becomes determining the best method to capture photos for field data collection, and then once the photo is taken how do we manage the files, and how can we link the photographs to GIS features, and then share those images with end users in a meaningful way. This presentation will look at the best practices and technologies available for capturing images for field data collection followed by a demonstration of the best process for managing photos and will walk you through how to link both geo-referenced and non-spatial photos to GPS points or GIS features.

Google and Government

Google Geo products are the most widely used in the world. Google Earth and Maps for Government combine the familiar, interactive Google mapping products with added features designed especially for government users. Please join us for the following:

1. Learn how Google works to keep our public consumer Maps and Earth up to date
2. Learn how Google has both traditional on-premise and cloud solutions for Government GIS Data
3. Learn how Google Maps for Government can move you into collaborative GIS
4. Learn how Google has worked with the District of Columbia to build a common operating picture for City GIS.

Smart Web Editing and Workflow Optimization

Working in multi-disciplinary environments introduces complex requirements and challenges that many conventional GIS solutions cannot support. While all users in an organization may require access to common data, access to specific records may vary depending on department, role, or geographic jurisdiction. User access may also vary as responsibilities change over the course of a project lifecycle. You need a solution that meets the needs of multidisciplinary organizations such as Departments of Transportation or municipal government, with highly configurable rules and a workflow engine that enables the implementation of dynamic life-cycle workflows, feature-level access control, data validation and

behavior, and integration to other systems. Discover the breadth of organizations that have deployed such a solution, from municipalities, through transportation and utility infrastructure operators, to government emergency management agencies.

May 22 -23 Keynotes

George White

Chief Information Officer
Governor's Office of Administration
Office for Information Technology

TOPIC:

IT Objectives and How They Map to Current GIS Initiatives Across the Commonwealth

Jim Querry

GIS Director, City of Philadelphia
Adjunct Faculty, Philadelphia University

TOPIC:

Geodesign

Mike Evanoff

Google

TOPIC:

Recent PA Flooding and the Use of Google Maps

Christian Carlson

Director for State and Local Government at ESRI