

2010 IMAGIN Conference

Session Abstracts

As of 4/15/2010

Monday

Track 1 - Engineering and GIS

1. *Using GIS to Better Predict Material Performance An Investigation of Polyvinyl Chloride (PVC or Vinyl)*

Natural products were commonly used as building materials prior to World War II. However, during the war, many supply lines to these materials were disrupted. As such, the development of polymers exploded as they became replacements for natural materials. In 2002, it was estimated that over 14 billion pounds of PVC are produced annually in North America. From this, approximately 75% of PVC is used as building materials, i.e. window frames, siding trim, fencing, etc. Unfortunately PVC is susceptible to weathering and degradation. This is accelerated in high UV and arid environments. While laboratory testing can be performed to test the PVC prior to placement in the field, the testing cannot completely mimic the climatic conditions the material will actually see. For this study, GIS will be used to develop a PVC Degradation Rating Scale to better predict PVC performance. The study area includes Phoenix, Arizona, and Boulder, Colorado.

Presented by:

Susan Henson

Eastern Michigan University

2. *Decision Making and Planting Trees using Green Infrastructure Maps*

This session will explain a statewide assessment methodology used to identify potential communities to support for green infrastructure assessment to address water quality concerns. Using examples from Southeast Michigan the session will explain 1) the assessment of existing green space in terms of water quality and quantity, 2) the use of this analysis to identify opportunities for tree planting, 3) how this has been used to support grant applications and implementation plans, and 4) how this information can be built into a long term stormwater management plan that benefits the overall environmental quality of a community.

Presented by:

Andrew Brenner

General Manager

Sanborn

3. *Utility Modeling and GIS*

This presentation will look at the types of data needed to perform utility modeling for water, sanitary and storm sewer systems. We will look at some of the challenges to making things work, tracking down and manipulating the data, and the results that you may get with different modeling software packages. We will use examples of communities here in Michigan and how the GIS and modeling software interact with each other.

Presented by:

James Miller

GIS Department Manager

Hubbell, Roth & Clark, Inc.

4. *Using GIS In Daily Asset Maintenance*

This presentation would describe a growing process within communities under the Asset Management where existing on the ground information is being loaded into ESRI v9.3.1 ArcGIS. Typically, community Asset Management have been using a wide variety of paper documents to support their field work on sewer pipes, water mains, water hydrants, main breaks; etc. The primary use of GIS is to bring relevant, current information to Field Supervisors more quickly and efficiently.

Using the FLEX tools from ESRI, a consultant team worked with community Asset Management and GIS staff to identify the source documents required in the daily functions of the field supervisors. At this time, attribute data and scanned documents are being developed and linked to the GIS for such data sets as water main breaks; sewer backups; contract drawings; water gate books; hydrants; etc. A demonstration of the functional web tools supporting Asset Management would be presented.

Presented by:

Bryan Rayo, GISi

Charlie Bristol, TYJT

5. *Integrating Inspection Management Software with GIS*

This session will provide an overview of how your inspection management software can best be integrated with GIS. Inspection management is often an underutilized tool in GIS, as GIS isn't inherently setup to handle multiple and historical inspection details for an asset, along with associated media and other files. There are many methods and options for integration,

however, the benefits and negatives should be heavily weighed before selecting an option. We will break down inspection management into 3 data "sets". For each data set, we will look at several options for transferring data, linking data, or launching data and applications. Each option reviewed will be discussed from the perspectives of user, conditioning assessment, and GIS DBA, with an overview of benefits for each.

Presented by:

Cori Criss and Kevin Hackett
Infrastructure Technologies

Track 2 - Web GIS

1. Data Democratization: Enhancing Access to Local and National Data through Interactive Online Mapping

The Johnson Center's Community Research Institute (CRI) at Grand Valley State University is committed to building a "data sharehouse" for the region, and thus improving the decision-making capacity in our local communities and the effectiveness of their civic, philanthropic, and grassroots leadership.

CRI has developed two online tools to achieve the goal of democratizing data to make it available to every person in the community. The first is the CRI community profiles website that provides users with data and information for defined geographies in the West Michigan area. The data provided ranges from U.S. Census demographics to local datasets including Michigan Vital Statistics, Kent County Building Permits, Grand Rapids offense data, and many more.

The second tool developed by CRI is an online interactive mapping and data application tool called MAPAS. The objective of MAPAS is to make relevant local, state, and federal information more readily accessible to foundations, nonprofit groups, government, media groups and citizens at large. MAPAS provides users with the ability to extract data and information for any existing or customized geographic area desired.

CRI Website: www.cridata.org

CRI Community Profiles: <http://www.cridata.org/communityprofiles.aspx>

MAPAS: www.cridata.org/mapas

Presented by:

Jeremy Pyne, GIS Specialist
Community Research Institute at GVSU

2. *Extending Advanced GeoProcessing via a Web Processing Service (WPS)*

Current web-based geospatial applications are primarily visualization tools useful for the display of information, but are limited when it comes to advanced analysis and geospatial processing. A recent implementation by the Open Geospatial Consortium (OGC) has defined an open standard for implementing a web based processing service known as WPS. This approach allows enterprise developers a method for offering advanced geospatial processing that can be accessed and shared by different clients across different domains. For instance, an advanced change detection algorithm offered as a WPS could be discovered and run by a forester using ArcGIS or an urban planner using Autodesk. The WPS is a true Service Oriented Approach (SOA) that is all about providing powerful geospatial algorithms that are published once but used by many different applications.

The reasons for an organization to adopt a WPS approach towards geospatial processing are based on the principles of simplification, standardization, and synchronization. The nature of the web is simplification in that rather than providing a massive toolbox of capabilities typical of most desktop applications, web based solutions tend to be focused on a specific set of functions, presented via a web page, that accomplish a specific task. While there may be multiple pages, each representing a different task, users can readily navigate to the task they want to accomplish and follow a prescribed workflow to get the work done. Of course, these prescribed workflows lead to a much higher level of standardization both in consistent methodology and the output returned by the process. The final principle of synchronization is permitted by the fact that both data and process are being managed via a central server. Unlike a bunch of independent desktop applications, each with their own data silos, a WPS provides a centralized production environment in which all access, processes, and output can be managed and subsequently optimized.

Much like today's ability to mash together geospatial data layers from different servers into a single comprehensive web-based view, the implementation of Web Processing Services (WPS) represents a non-proprietary way to share functionality and process within a community of users. In addition to the efficiency of sharing and reusing a given process for multiple applications, the benefits of simplification, standardization, and synchronization promise enormous productivity for any organization requiring advanced geospatial processing.

Presented by:

Kurt Schwopp

VP Professional Service

ERDAS, Inc.

3. *Web GIS Modernization - Migrating from ArcIMS to ArcGIS Server 9.3.1*

Abstract: As GIS technology continues to evolve, so do the ways in which GIS data and functions get distributed to the people who need them to be more productive and efficient in their work. Web GIS makes up a big part of the GIS world today and there have been significant changes to how GIS professionals can deploy GIS on the web. ArcGIS Server offers creative ways to distribute maps and GIS capabilities via web mapping applications and web services. In this workshop GIS professionals will learn how to utilize existing tools and templates to develop rich internet applications with ArcGIS Server. The latest technology available with ArcGIS Server gives the GIS professional power to develop web applications without in-depth web development skills.

Presented by:

Sam Klimoski
State & Local Government
ESRI

4. *Enterprise ArcGIS (Flex) Solutions for Cadastral Mapping, Vehicle Tracking and Facility Management*

By creating an eGIS (enterprise GIS) portal using ESRI's ArcGIS Server platform and Flex technology, 39°N has been able to provide a variety of organizations with a sustainable and scalable WebGIS solution. Please plan to attend this session to find out how the eGIS application serves:

Cadastral Mapping

eGIS provides government and citizens with a one-stop portal for viewing property information, tax bills, sales disclosures, and for performing simple GIS tasks through the web allowing anywhere, anytime access.

Facility Management

eGIS provides facility management for the University of Kentucky with a single place to house AutoCAD, GIS, and non-spatial databases to track furniture, technology, equipment, and finishes for each room on campus.

Vehicle Tracking

eGIS provides the Village of East Rockaway, New York with a WebGIS approach to Automated Vehicle Location (AVL) using ArcGIS Server Flex.

Presented by:

Chris Walls, Owner, 39°N
Randy Smith, Account Manager, 39°N

Track 3 – Education & Students/ Planning

1. *Career Development through Geographic Information Science Degree Programs: the Michigan State University Perspective*

This session provides a brief overview of GIS degrees and their roles in GIS professional career development, particularly in uncertain times. Specific degree options and content from the Michigan State University Department of Geography are covered.

Presented by:

Ashton Shortridge,
Dept. of Geography, Michigan State University

2. *New methods of rapid field survey of submerged archaeological sites.*

Underwater archaeologists from Northwestern Michigan College and divers from the Grand Traverse Bay Underwater Preserve Council began the baseline survey of submerged cultural resources in 2007 by utilizing new sector scanning equipment developed by Kongsberg-Mesotech (Vancouver, Canada). The results of this preliminary survey and equipment field test have been stunning. This paper will explore the catalog of cultural sites surveyed, methodology of deployment and how this new equipment can contribute to the development of rapid underwater archaeological survey.

This project has taken an interdisciplinary approach from its outset. Corporations, acoustic technicians, underwater archaeologists, geologists, GIS specialists and cultural resource managers have worked together to produce a detailed survey of 15 submerged, previously undocumented, cultural sites within two, 4 month, field seasons. The sites range in type from a potentially 10,000 year old petroglyph and associated submerged shore line, various turn of the century wooden shipwrecks, and large deposits of cultural debris from the 1930's and 1950's. Applying the acoustic technology to this wide range of site type has demonstrated both its flexibility and cost effectiveness. The limitations of this survey technology will be explored as well as the type of conditions necessary to successfully deploy the equipment in the field. Post processing and data management will also be examined as well some of the new directions that this tool can take future research. A strong argument will be made that this technology should be employed at the start of any underwater archaeological project and may be useful to a wide range of scientists in related fields of underwater research and exploration.

Students who have been trained in this program at Northwestern Michigan College have completed projects in Greece, Ireland and Scotland last year, as well as five projects in Grand Traverse Bay. One student won NAS's international award for underwater archaeology for completing a survey project on the United States' first log road in Detroit. NMC is currently the only school in this country to offer this academic program and it is hoped that in time students can be recruited nationally.

Presented by:

Dr. Mark Holley

3. *The Role of GIS in Master Planning Processes, the Case of Suttons Bay*

Suttons Bay Township and the Village of Suttons Bay have formed a Joint Planning Commission and are in the process of developing a Joint Master Plan. During this process, the Suttons Bay Community Joint Planning Commission (SBCJPC) applied an overlay methodology using GIS to develop the plan's future land use map. At this session you will learn about their procedure and how it could be applied elsewhere.

Presented by:

Paul Riess, GIS Specialist, LIAA

Heather Seyfarth, Community Planner, LIAA

4. *GIS & Mapping for Improved Property Tax Management*

This session will demonstrate how GIS and mapping can improve tax management and the financial position of local units of government. Governments require money to provide services such as well-staffed police and fire departments, well-paved roads, regular trash collection and, above all, good schools. The property tax is the one tax that provides a stable, continuous stream of revenue to localities to ensure that those services are adequately funded.

This session will touch on improvements to various assessing and equalization reports and the importance of moving from paper tax maps to digital tax maps for better analysis and savings. It will cover increased revenue from homestead audits, geoauditing, plat books, and grants – and sharing information more effectively with land agencies that have a similar need for comprehensive and accurate land information.

Presented by:

Laurie Spencer

Grand Traverse County

5. *The Nationwide Broadband Mapping Effort and What it Means from a State Perspective*

This session will discuss the recent nationwide broadband mapping effort undertaken by the National Telecommunications and Information Administration. The session will discuss what this means from a state and local government perspective and how it all ties to the National Broadband Plan put forward by the FCC. This will demonstrate example output from various states.

Presented by:

Sudha Maheshwari
Sanborn

6. *Practical Ways to use your GIS System*

Leelanau County has utilized its GIS system for many practical methods including: grant applications, development of recreational trails, mapping of contaminated sites and storage sites of hazardous materials, sharing of data with local government agencies, and much more. This session will provide a brief history of how Leelanau County went from a paper based mapping system to the development of a GIS system which includes a website with interactive mapping services, and a link to the county's 9-1-1 system; and provide examples on how the GIS system can be used to complete simple, and difficult tasks.

Presented by:

*Kristin Smith, Senior Planner
Trudy Galla, Planning Director
Leelanau County*

Track 4 – Local Government GIS

1. *Innovative Approach to Assessing Waterfront Properties*

This session will demonstrate an innovative approach to assessing waterfront properties. A fair amount of time was spent researching the appraisal of waterfront properties, including the IAAO Library, and the criterion important to purchasers was noted such as elevation and slope of lot, quality of shoreline, beach width, direction of prevailing winds, predominant exposure and so forth. An article was also found which explained a point system to determine whether front foot should be used on waterfront parcels.

In order to analyze the impact of various features it was necessary to have a database to collect the data. The assessing database came up short as some of the data necessary was not currently available nor was there a location in the database to store it. It was decided that a database

linked to the GIS system would be used to accomplish the task. A pilot lake was selected – Spider Lake which is a 450-Acre “all sports” lake in Grand Traverse County.

A certified general appraiser was hired to review the land values on Spider Lake. It was felt that this could then be compared to the analysis after the project was completed. Staff appraisers visited improved properties to measure and collect the property record card data. A survey by water was also undertaken. Equalization Staff utilizing a GPS unit (GEOXT) with database, a boat, a Tablet PC, a depth finder, compass, camera, and measuring pole set out to gather the data that could best be captured by water.

This session will touch on how the data was collected and incorporated into the GIS system and ultimately analyzed to determine assessments. How some data was brought back into the assessing system will also be discussed.

Assessors must continue to provide accurate and consistent real and personal property valuations while facing challenges such as an increasing number of properties to value, complex tax laws and exemptions, and the need for public access to records. In most cases, this must be accomplished with the same or fewer in-house resources. Assessment administrators can achieve these goals through increased revenue with wider use of GIS technology, and can share that information more effectively with land agencies that have a similar need for comprehensive and accurate land information.

Presented by:

Laurie A. Spencer, CMAE 4
Equalization/GIS Director
Certified Personal Property Examiner
Damage Assessment Officer
Grand Traverse County Equalization/GIS Dept.

2. *State and Local GIS Collaboration in Ohio*

Over the past 5 years, the State of Ohio has developed two major state wide initiatives. These projects have helped to free up monies, jump start GIS programs and set the bar for open communications. The open communication model set by the state has trickled into the local government GIS departments.

When Wayne County, Ohio took on the project to remap their cadastral layer, they reviewed each process, interviewed departments, agencies, regional planning districts as well as state departments. They found that by making small changes to the front end, these other agencies could benefit with little to no cost to them.

This presentation will highlight the collaborative effort of the state as well as some highlights of The Wayne County, Ohio GIS department's leadership in continuing the collaborative effort within the county, region and district.

Presented by:

Brian Hall, GISP
GIS Director
Wayne County Ohio Auditor's Office

Jon Cross, GISP
GIS Account Manager
Bruce Harris & Associates, Inc.

3. *Oakland County Local Government Collaborative Efforts in Preparation of 2010 Census*

In preparation of the 2010 Census, Oakland County has collaborated with its local communities to participate in several U.S. Census Bureau programs including Local Update of Census Addresses (LUCA), annual Boundary and Annexation Surveys (BAS) and most recently, the 2010 Census New Construction Program.

Community participation in these efforts has provided numerous address, boundary and road edits to the U.S. Census Bureau through a single point of contact.

This presentation will demonstrate how local governments can collaborate to reduce duplication of effort while maximizing data holdings at all levels of government.

Presented by:

Anita Campbell
Data Services Supervisor
Oakland County Information Technology

4. *Oakland County GIS-Based Drain Apportionment Inventory & Reporting System*

The Oakland County Water Resources Commissioner's Office (WRC) has recently implemented a GIS-based Drain Apportionment Inventory and Reporting system. This application accurately apportions costs for the establishment and maintenance of the drainage system serving the communities within Oakland County. It replaces a cumbersome system that involved a series of spreadsheets, Access databases, paper maps and a mainframe system. The new system saves at least 50% of the staff time while significantly improving the quality of the data. The Drain

Apportionment Inventory and Reporting system is a desktop application designed using a series of ArcGIS Engine tools and a SQL Server database to help WRC with complex computations. It also includes a complete reporting system for quality control and for producing final reports for the County Treasurer's Office and the communities within the County. This presentation will focus on the development, business logic & implementation of this system.

Presented by:

Dawn Siegel

Supervisor, Department of Information Technology

Oakland County, Michigan

5. *Washtenaw County's Contour, Hydro and Building Footprint data set*

This presentation will demonstrate how Washtenaw County, MI. was able to develop a cost effective countywide Contour, Hydro, and Building Footprint data set using new technology.

The combination of digital imagery and LiDAR data provided a base from which data analysis was used for automated and semi-automated feature extraction of buildings. In addition, a relatively new technology LiDARgrammetry was used to capture DTM, Hydro, and Contour data.

This presentation will also show how LiDAR and Digital Imagery can also be used for other applications such as, Land Use, Land Cover, Line of Site Analysis, Impervious Surface Mapping, and many more.

Presented by:

Nate Arnold, GISP

Washtenaw County Support Services / IT

Joe Cantz, CP

Woolpert, Inc.

6. *Evaluating a Geographic Information System as a Decision Support Tool for the Michigan Department of Transportation, Environmental Section*

The Michigan Department of Transportation (MDOT) Environmental Section has created a geographic information system (GIS) that organizes and displays large amounts of information from multiple disciplines to facilitate the review of transportation projects. These maps are dynamic and interactive, and allow different types of spatial information to be visualized simultaneously. Over 70 data layers representing statewide framework information and as well

as specialized information specific to each specialist are organized into published map files that are viewed using ESRI's ArcReader software. Evaluating the effectiveness of the query interface as a tool for storing, retrieving, and analyzing information is an important but not often explored aspect of a GIS. This study evaluated the usability and effectiveness of the ArcReader maps as a decision support tool, and identified potential ways to improve the system. MDOT staff members found the maps to be a useful tool for their decision making process while reviewing transportation projects. For the majority of map users, the effort to review a job had decreased, the ability to visualize multiple pieces of information simultaneously improved the efficiency of the review process, and the time spent reviewing projects has decreased.

Presented by:

Kimberly Borland

Michigan State University

Tuesday

Track 1 –Professional Development

1. *Out of the Box Ideas for Professional Development*

Whether you read blogs and trade journals over your lunch hour or listen to ESRI podcasts while cleaning your house, in this environment of tight timelines and tighter budgets, professional development requires creativity. Come share ideas with your colleagues in this open discussion covering blogs, low cost training, trade journals, professional networking, and more.

Facilitate Discussion, Moderated by:

David Poulson

Associate Director, Knight Center for Journalism

Department of Journalism, Michigan State University

517.432.5417

poulson@msu.edu

2. *Professional Certification*

Have you considered professional certification (e.g. GISP, ASPRS, PMP, etc.)? Come engage in this panel discussion to learn more about the application process and benefits of participation in these professional certification programs.

Panel Discussion, moderated by:

Jessica Moy
Director, Remote Sensing and GIS Research and Outreach Services
Michigan State University
517.432.0601

Robert Burtch, PS, CP
Professor, Surveying Engineering Department
Ferris State University
231.591.2082
burtchr@ferris.edu

Scott Ambs, GISP
GIS Coordinator, Jackson Community GIS
517.768.6691
sambs@co.jackson.mi.us

3. *Social Networking*

Become a firm believer in the raw power of social media. Why?... Social web can [improve your career](#), [aid charitable causes](#), [transform businesses](#) and even [change the world](#). Need convincing? Hear why social media is a force to be reckoned with and why you should get plugged in now.

Presented by:

Mary Meyer
Alumni Relations and Events Coordinator, School of Labor and Industrial Relations
Michigan State University
517.355.7656
Meyerma8@msu.edu

4. *Marketing GIS*

Whether you are meeting the needs of county commissioners or clients, your GIS organization is fundamentally a business. This presentation is designed to show you how to use a business planning process to keep your organization viable by capitalizing on opportunities in a changed marketplace. We will explore how to size up your organization, explore growth opportunities, make strategic decisions and strengthen your product or service.

Presented by:

Gordon Ferguson
Michigan Small Business and Technology Development Center
517.483.1921
fergug@lcc.edu

Track 2 – Emergency Management and Public Safety

1. Michigan State Police – Emergency Management & Homeland Security

The presentation will focus on the future GIS efforts that will be conducted in the Michigan State Police (MSP) Emergency Management and Homeland Security Division (EMHSD), as well as the Michigan Intelligence Operation Center (MIOC). GIS Efforts are focused on the upgrade to ArcGIS Server and the implementation of a project that can be used in the State Emergency Operation Center (SEOC) and MIOC during an emergency or time of disaster. The SEOC and MIOC will have servers that are virtual connected and therefore able to replicate GIS data, tools, and projects to allow for accurate and consistent response from both agencies. The project will allow responders access to multiple sources of statewide and national datasets, customized geo-processing tools, and access to live data feeds including traffic camera, weather feeds, etc.

If time other EMHSD GIS efforts can be discussed such as the technical role in the Radiological Emergency Preparedness Program.

Presented by:

Michelle Kleckler - Michigan State Police

klecklem@michigan.gov

GIS Specialist

Michigan State Police

Emergency Management & Homeland Security Division Communication & Information Service

2. Spanning Scale: Driving Understanding and Action in Emergency Management Visualizations

Emergency management systems are increasingly moving into extensible and secure online environments where access, specialization, and collaboration are more readily achieved. As these systems, particularly the geographic component within them, gain confidence and market penetration, their contribution to the overall workflow of emergency managers is quickly evolving beyond the passive display of mapped data.

This presentation stems from solution development with several emergency management clients ranging from regional to federal to international levels. These organizations, while varying in size and mission, at their core wish to more effectively process and present data, enable their people to have a greater sense of understanding and empowerment, and equip them to undertake a more concrete actionable response. What are the similarities between clients of these scales? What are the differences?

Specific examples will be discussed including scale of focus, contextualization, cartographic options and implications, technology, tandem visualization tools, and design considerations.

Presented by:

John Nelson - IDV Solutions

john.nelson@idvsolutions.com

3. *Crime Incident Mapping using the ArcGIS Server Silverlight: Ottawa County*

<http://www.gis.co.ottawa.mi.us/ottawa/publicincidentsmapping/>

In 2006, the Ottawa County IT Department initiated a collaboration with the Ottawa County Sheriff's Office to create a Web Mapping Application to display incident calls from the Ottawa County Central Dispatch. An early version of the application was presented to IMAGIN a few years ago. Since that time, the application has evolved significantly and transformed from an application that would be viewed every few days by a small number of Sheriff's Office staff to an organization-wide tool accessed by officers multiple times a day. A Public version of the application was also developed and debuted in November 2009.

This presentation will explain how the IT Department worked closely with Sheriff's staff to improve and customize the application, the strategy used to secure buy-in from Sheriff's Office management and general staff, and the process developed to successfully implement the Application as part of the daily Sheriff's Office workflow. In addition, this presentation will discuss the technology used to build the application, including the use of Microsoft's Silverlight API on top of ESRI's ArcGIS Server.

Presented by:

Patrick Lowman – Ottawa County

Track 3 – Emerging Technology

1. *Scaling GIS for Enterprise Use*

Making GIS products and capabilities accessible and usable by people throughout an “enterprise” setting does not necessarily mean building an expensive, complex GIS infrastructure and program. Scaling the implementation of GIS in a reasonable way for an organization, yet allowing widespread use is a goal that is possible. This session will discuss the issues, options, and provide real world examples of applying GIS at different levels for a range of organizations.

Presented by:

James Bennett and Brooks Kelley
InfoGeographics

2. *What ESRI ArcGIS Server API or ADF Should You Choose for your GIS?*

The session will help the audience answer the common questions of “Which API should be use with our GIS?”. The session will help the audience answer the question between JavaScript API, Flex API, Silverlight API and the .Net and Java Web.ADFs.

Presented by:

Michael Healander, GISi
North Region General Manager

3. Thinking about Enterprise GIS: Answers to Practical Questions

Enterprise GIS (E-GIS) or organization-wide system/data/application integration and sharing is a commonly stated goal for improving government GIS, and its potential benefits are many: lower cost, greater efficiency, and improved data access, among others. But how does it apply to your organization? In practice, there is no “one-approach-fits-all” E-GIS. This presentation will consider several practical E-GIS questions to help guide your planning, including: What elements should be centrally managed? Is there an ideal system architecture? What are current best practices and technologies? How is E-GIS funded and managed organizationally? And, what benefits can you really expect? The discussion will draw examples from various studies and E-GIS implementations at different levels of government, from state to local, to illustrate a range of different strategies and approaches to successful E-GIS.

Presented by:

Steve Anderson, GISP
Applies Geographics, Inc.

4. GIS for the Michigan DNRE

IFMAP and Enterprise GIS for the Michigan DNRE. How it has benefited the DNRE and some of the struggles that the DNRE has faced.

Presented by:

Brian Maki

Track 4 – Vendor Spotlight

1. Title: Smartview – A New Dimension in Oblique Aerial View Imagery

Woolpert’s SmartView™ OAV system will allow users of both standard orthoimagery and oblique imagery to view and gather valuable visual information. This presentation will demonstrate how SmartView users will be able to maintain and create GIS data in ArcGIS, while

simultaneously viewing oblique imagery and vertical orthoimagery. Those without GIS software will be shown how SmartView can be used without the need of any specialized software. This product will give GIS professionals and everyday users a unique tool for feature analysis and critical decision-making.

Presented by:

Brad Fugate

Woolpert

2. *City of Troy's Systems Integration with ArcGIS Server Highlighting the use of GeoCortex Essentials framework*

The City of Troy, MI is a medium sized city with outsized GIS deployment skills. Exploring new technologies early, the City developed its own web-based editing capabilities. Eager to explore the capabilities made available in ArcGIS Server early in its lifecycle, the GIS department developed a number of pilot applications to test search, task and geoprocessing functions. They also chose the COTS approach to deploying ArcGIS Server. Why? Join the debate to learn why a progressive city with minimal development resources chose to make use of COTS reporting, non-spatial database linking, administration and application framework tools for ArcGIS Server.

Presented by:

Alex Bellak, City of Troy

Brock Kingston, Latitude Geographics

3. *The National Map 2.0*

For 125 years, the U.S. Geological Survey labored to produce almost 70,000 topographic maps for the continental United States, including over 54,000 at 1:24,000 scale. This year, a new, digital successor, the US Topo, is being produced. The US Topo is a layered GeoPDF, containing traditional elements of a topographic map, plus orthoimagery. The US Topo, along with the improved NationalMap Viewer, represent two important data-delivery vehicles leveraging the National Spatial Data Infrastructure.

The US Topo is produced by automated methods by drawing data from the NSDI databases – the National Elevation Dataset, the National Hydrography Dataset, the Geographic Names Information System, etc. Although the maps are still reviewed by humans, leveraging both the data and information infrastructure investment of the past decade has drastically reduced the time required to produce a 7.5-minute map. While it used to take an average of 8 years from start to finish to complete a conventional 1:24K topographic map, the USGS is producing, on

average, one US Topo every 8 minutes, with work plans to produce between 15,000 and 20,000 every year, mapping the contiguous U.S. on a 3 year rotation.

The new *National Map* viewer replaces the dated and relatively slow interface of the old viewer with a modern, tiled, easily layered interface capable of ingesting KML, WMS, IMS, and AGS services. The new viewer also provides simple GIS functionality, including spatial and attribute queries, measuring, geocoding, annotation, and spot elevations.

The basic infrastructure of TNM, the US Topo, and the TNM Viewer is still data – services and applications without data are like cars without roads. Creating and maintaining current, accurate, authoritative datasets in the public domain enables TNM, Google Maps, Bing Maps, as well as State, county, and local applications, to focus on analysis and content delivery, saving resources by reducing independent, duplicative, or conflicting base-data creation.

Presented by:

Steve Aichele, USGS

4. *Utilizing GPS to Enhance Asset Management in New and Existing GIS*

Many municipalities and municipal authorities are utilizing exiting paper records, databases, and geo-databases to manage their physical assets and utilities. Much of this information is very useful but may not have a geographic location component. This session explains how mapping grade GPS devices can be used to collect accurate positional and attribute information for a variety of assets.

Different accuracy levels and real time and post processed corrections of the GPS signal will be discussed. Examples of how different municipalities and utility managers have combined existing information and newly collected information will be presented.

Presented by:

Kevin Chappell
Precision Laser & Instrument, Inc.