



GIS *in Action* 2007

FINAL PROGRAM

Of the Fifteenth Annual GIS In Action Meeting

April 17-18, 2007

Vancouver Conference Center & Hilton Hotel
Vancouver, WA

Welcome to GIS in Action: 2007!

This is the fifteenth annual conference hosted by the Columbia River Region of the American Society of Photogrammetry and Remote Sensing (ASPRS) and the Oregon-Southwest Washington Chapter of the Urban and Regional Information Systems Association (URISA). Each year ASPRS and URISA collaborate to hold this informational conference on current issues in the geospatial information community. Join us for what will surely be another successful opportunity to meet with colleagues in the geospatial industries and organizations, to learn about emerging topics and recent advances in GIS applications, and to discuss our problems and solutions together.

This event features a one-fee, two-day format, packed with information presented in concurrently running workshops and sessions on both days. There will be three tracks each day consisting of panel discussions debating hot-topics, traditional sessions with 2-3 presentations per session, and technical workshops providing in-depth discussion of issues and training in applications most relevant to the geospatial community.

On-site registration opens at 8:00am on Tuesday April 17th and will remain open through 11:00am on Wednesday, April 18th. The conference opens at 8:30am on Tuesday with concurrent sessions and workshops. The Annual Vendor Social will be held Tuesday night from 5:00pm to 7:00pm.

Guest speakers will present during lunch on both days. On Tuesday, **Bernie Szukalski, ESRI, Director of Technology Strategies** will present a look at how things have evolved, where things are going, and learn more about integrating Web-based GIS with other kinds of services, local content, and rich media. On Wednesday, **Rob Roy, Microsoft** will present The Microsoft Virtual Earth mapping and location intelligence platform for producing maps, earth imagery and 3D urban and terrain models.

Conference Highlights:

- The **Exhibit Hall** will open on Tuesday at 10:00am and remain open until Wednesday at 2:00pm. The hall will feature as many as 25 vendors in GIS related technology and services. This is an opportunity to see and discuss the latest advances in the industry.
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- The **Vendor Hosted Social** will be held Tuesday evening from 5:00pm to 7:00pm in the Exhibit Hall. Join your peers in a more relaxed atmosphere with food and beverages. You'll find a free drink ticket in your registration packet.
- The **Poster Session** will be held during the Vendor Hosted Social. Ballots for the People's Choice are included in your registration package. Please take it with you to the Exhibit Hall and vote. Winners will be announced at the Raffle.
- The annual **Raffle** will be held on Wednesday during the Closing Session. Raffle tickets will be handed out at the door. You must be present to win. **Women In GIS** will conduct the raffle and awarding of prizes in a "GIS Quiz Show" format.
- You have the opportunity to meet and **network** with GIS professionals from the region. Find out who is doing what, and how.

GISP Credits:

Attendance for this conference is 0.1 education points per day (0.2 points for the entire conference).

PLANNING COMMITTEE

Conference Chair, Dick Bolen

Facilities & Menu Coordinator, Dick Bolen

Registration Coordinator, Roger Crystal

Finance, Brian Miyake

Poster Session, Minott Kerr

Web, Joanna Mensher

Program Chair, Dick Bolen

Workshop Chair, Dick Bolen

Exhibit Hall Coordinator, Doug Smith

Publicity Coordinator, Carol Hall

Raffle Coordinator, Brian Miyake

Volunteer Coordinator, Minott Kerr

SPONSORING ORGANIZATIONS

Oregon/SW Washington URISA Chapter



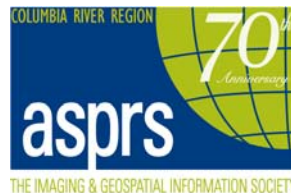
The Chapter seeks to advance knowledge in the design, operation, and dissemination of urban and regional information systems. It provides a forum for a variety of issues related to information systems serving its members, related professionals, decision-makers and the public. Members live and work in Oregon and Southwest Washington.

The Chapter seeks to accomplish objectives in the following areas:

- ❖ Education
- ❖ Professional Development
- ❖ Coordination, Networking and Information Clearinghouse
- ❖ Policy Advocacy

Anyone having a serious interest in GIS and urban information systems is encouraged to join. You can be placed on the membership list by visiting www.orurisa.org

Columbia River Region of ASPRS



The American Society for Photogrammetry and Remote Sensing (ASPRS) is a scientific association serving over 7,000 professional members around the world. The ASPRS mission is to advance knowledge and improve understanding of mapping sciences to promote the responsible applications of photogrammetry, remote sensing, geographic information systems (GIS), and supporting technologies.

The Columbia River Region of ASPRS provides a local interface for members to receive information concerning national and regional events and maintain recognition as mapping science practitioners. The Region's programs are effectively utilized by members to acquire necessary information, develop relationships, and maintain their knowledge base. The annual GIS in Action conference, co-sponsored with the Oregon Chapter of URISA, is an important component of the Columbia River Region's educational and communication goals.



Vancouver Washington

Vancouver Conference Center and Hilton Hotel

301 W. 6th Street, Vancouver, Washington, United States 98660
Tel: +1-360-993-4500 Fax: +1-360-993-4484

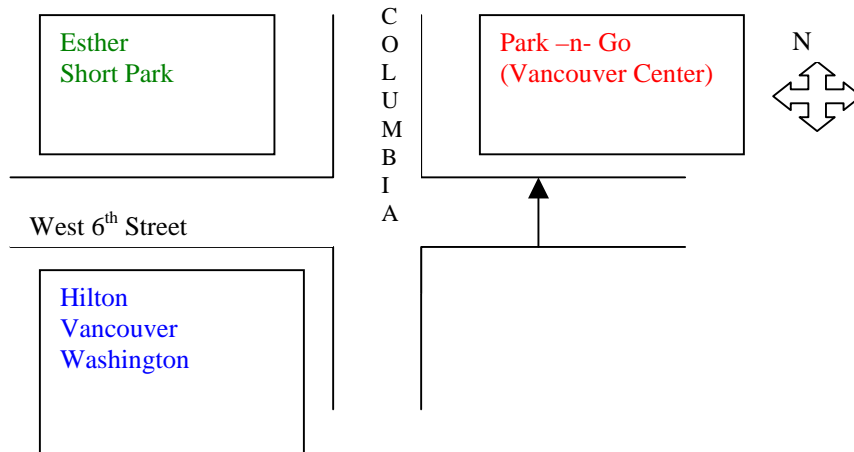
Contact the hotel directly at **(360) 993-4500** or **1-800-HILTONS** or visit the hotel registration desk. Ask for the

GIS in Action Conference Rate: Single/Double \$119/night

PARKING

Overnight Hotel Guest: Parking is located in our underground garage at Columbia between 5th and 6th on the east side of the hotel. Self Parking is \$5.00 per day. Please check into hotel first, to receive a key to access the garage.

Day Guests (attending meetings, events or restaurant dining in Gray's At The Park): Vancouver Center Building has a "Park & Go" garage located at 6th Street between Columbia and Washington Streets. Fees are .50 cents an hour.



Vancouver center Parking Garage Operation and Rate Schedule:

Hours of Operation:

Monday – Thursday	6am to 10pm
Friday - Saturday	6am to midnight
Sunday	8am to 10pm

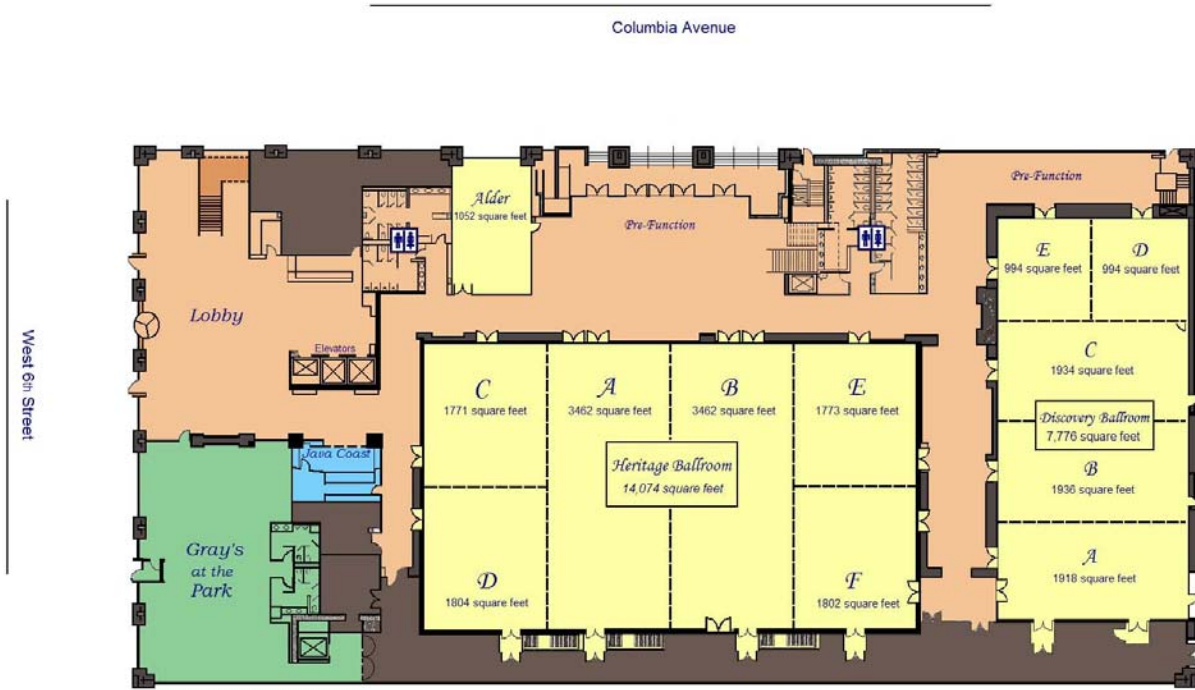
Parking Rates:

Hourly rate:	\$.50
Monday – Friday	\$4.00 max until 6pm
	\$5.50 max all day until close
	\$1.50 max after 6pm until close
Weekend Rate	\$1.50 all day

Payment: Payment Pay Stations accept nickel, dime, quarters and one dollar coins. VISA and MasterCard are also accepted.

Street Parking: Metered parking is available on the blocks surrounding the hotel. Maximum time limits range from 1 hour to 10 hours, depending on the location. Evenings and Weekends are free.

VANCOUVER CONFERENCE CENTER MAP



1st Floor Meeting Space

7:30 AM

Conference Registration Opens: Convention Center Lobby

8:30 - 10:00 AM

CONCURRENT TRACKS

TRACK A Serving Images and Data on the Web

8:30-10:00 Moderator: David Percy, Portland State University

i) Serving Images on the Web with ESRI's ArcGIS Image Server

Chen Li, ESRI, Olympia WA

ESRI's ArcGIS Image Server provides fast access and visualization of large quantities of file-based imagery, processed on the fly and on demand such as image enhancement, orthorectification, pan sharpening and complex image mosaic. The images generated by the server can be used in most GIS vendors' software, including ArcGIS Desktop and ArcGIS Server, ERDAS IMAGINE, Intergraph GeoMedia, and MapInfo Pro, as well as CAD software such as AutoCAD and MicroStation. ArcGIS Image Server can be used within large mapping and imagery data management companies. There is also an opportunity for significant use within agencies and companies that manage distribute and use large quantities of image data.

ii) What's in your Wallet?

Marshal Payne, GeoNorth

When deciding to serve spatial and related content on the web, there are number of topics organizations should consider to help ensure success. This presentation will provide a pragmatic and high-level overview of both business and technical considerations. Best practices, cost of ownership, current technology and scalability will also be explored.

iii) Dealing with Expanding Raster Data Storage and Delivery Requirements

Todd Packebush, ER Mapper, Geospatial Imagery Solutions

As public awareness and availability of high-resolution imagery grows, GIS managers are finding it increasingly difficult to meet mandates for both internal and external user access to raster data via traditional web-based delivery systems. The Image Web Server from ER Mapper, Inc. uses proven standards-based technology for data storage, extraction and delivery in conjunction with vector GIS via standard web browsers – without sophisticated database techniques or expensive hardware requirements.

Examples from real-world, live applications will be demonstrated, representing State, Local and Commercial organizations. Image Web Server features include image transparency, on the fly reprojection, direct support for WMS and security controls; new functions include the Image Extraction Engine which adds "clip & ship" functionality to IWS-based websites.

An update will also be provided on the Oregon State Ortho Imagery Project.

TRACK B LiDAR is Coming to Town: New Frontier for Geoprocessing

8:30-10:00 Moderator: Ian Madin, Chief Scientist, Oregon Department of Geology

i) Portland region intergovernmental LIDAR project

The LIDAR consortium project for Portland region will be presented; an overview of this new technology; its primary applications and derivative products, such as bare earth, DTM, DEM and applications such as identifying landslide hazards.

ii) An Introduction to LiDAR Technology and Examples of Natural Resource Applications

Russell Faux, Watershed Sciences, Corvallis OR

Topics to be covered include;

- High precision data: Geodatabases at 9.2 will now store and process data using double-precision geometry.
- File-based geodatabase format: Complete functionality of the personal geodatabase has now been implemented as a folder of files in the file system
- ArcSDE Personal Edition and ArcSDE Workgroup Edition servers:
- Replication: Allows access to a single logical database distributed over several network nodes - a federated database.
- Archiving: New geodatabase archiving implementation makes it easy to store, query and manage database history.
- Non-versioned short transaction editing: Multi-user editing now possible without versioning with new short transaction editing model for simple feature databases
- New terrain data type for handling elevations and surfaces: Terrains let you store massive surface datasets, such as LIDAR elevation data, in the geodatabase

PARTICIPATING VENDORS:

3Di West

<http://www.3diwest.com>

A & E Imaging

<http://www.aeimagimg.com>

AMEC Earth & Environmental, Inc.

<http://www.amec.com>

Autodesk - The PPI Group

<http://www.theppigroup.com>

Cascade Architecture & Engineering

<http://www.caes.com>

Clackamas Community College

<http://www.clackamas.edu>

Cyber City / Pictometry

<http://www.caes.com>

David C. Smith & Associates, Inc

<http://www.davidsmithmapping.com>

Electronic Data Solutions

<http://www.elecdata.com>

ER Mapper

<http://www.ermapper.com>

ESRI

<http://www.esri.com>

GeoEngineers, Inc.

<http://www.geoengineers.com>

GeoNorth LLC

<http://www.geonorth.com>

Intergraph

<http://www.intergraph.com>

i-Ten Associates, Inc.

<http://www.i10assoc.com>

King County GIS Center

<http://www.metrokc.gov/gis>

L-3 Communications Enterprise IT Solutions

<http://www.L-3com.com>

Latitude Geographics Group Ltd

<http://www.latitudegeo.com>

Microsoft Corp. Virtual Earth

<http://www.microsoft.com/virtualearth>

Oce North America

<http://www.oce.com>

Portland State University

<http://www.pdx.edu>

Sanborn

<http://www.sanborn.com>

Spencer B. Gross, Inc.

<http://www.sbgmaps.com>

Visual Learning Systems

<http://www.vls-inc.com>

TRACK A Open Solutions: Integrating Open Solutions into your GIS Suite of Software

10:30-12:00 Moderator: Eric Bohard

This panel will discuss the pros and cons of Open Solutions (open source, open exchange formats and open DBMS's), and explore the associated issues, such as: operating systems and DBMS licensing options; product maturity; business considerations and cost savings; technical challenges; and how to leverage open solutions to advance data sharing and framework initiatives.

i) The Top Of The Stack, Open Source Mapping Frameworks

Presenter: David Percy, Portland State University

While many successful, production sites on the web use Mapserver and Postgis on the back end, the biggest question is typically about the "presentation layer", or what does the user see, and how do they interact with my map? We refer to this as the "top" of the "stack". The developer or implementer has many choices that range from writing their own "front end" to using an existing one, depending on their skill at programming and their time and budget constraints.

The discussion begins with an introduction to the basics of interfacing to data using Javascript and PHP/Mapscript. We then leave this topic and move on to implementing a real system using "out-of-the-box" mapping frameworks. We will walk through several of the popular and stable projects out there and end with Portland State University's own Open Source contribution, MapFu. In this talk I will discuss several specific "mapping frameworks", open source projects that help solve some of the specific problems with building a customized interface to your open source Mapserver data collection.

ii) MapGuide Open Source – An Overview and Examples

Andrew Morsell, Spatial Integrators, Inc.

MapGuide Open Source is a web map server application that enables users to deploy their mapping data over the web. It is one of many open source GIS projects within the Open Source Geospatial Foundation (OSGeo). It can be deployed on Windows or Linux, supports Apache HTTP server and Microsoft Internet Information Server, and offers extensive PHP, .NET, Java and JavaScript API's for application development. MapGuide Open Source is licensed under the Limited Gnu Public License (LGPL). This session will discuss the history of the MapGuide Open Source project, examine its architecture, and explain the typical deployment environments. In addition, we will look at some sites that have been developed with MapGuide Open Source including the Kid's GIS Environment Portal. We will also discuss and examine integrating MapGuide Open Source and Feature Data Objects (FDO) technology with other applications, such as Google Earth and Google Maps.

iii) The Open Source Solution to Clackamas County's Internet Mapping

Jim Lugosi, Clackamas County Information Services

Open Source Development has been around for sometime, but is now making itself visible in the GIS Community. Clackamas County has taken the time to research and implement one of the readily available Open Source Applications available to the public. We have chosen MapServer as an Open Source development environment to help us replace our previous version of CMap that was built using MapObjects. Our main goals during the development were to increase spatial and tabular query time, implement a more user friendly GUI for our end users, have the application usable by any browser and allow us to control the look, feel and maintenance of the application.

TRACK B Integrating LiDAR Technology with Your GIS (Planning, Public Works and Natural Resources)
10:30-12:00 Moderator: Doug Smith, David Smith and Associates

LiDAR opens a new realm for geoprocessing that will be presented ranging from natural resources, public works and land planning.

i) City of Portland LiDAR Data: Processing, Uses, Products

Kevin Martin, GIS Analyst, City of Portland Bureau of Planning

The City of Portland has been working with LiDAR data since a pilot project in Tryon Creek Watershed flown in 2004. Data covering Portland's West Hills and the Columbia Slough watershed was collected in 2005 and 2006, respectively. The purpose of this presentation is to provide an overview of how the data was processed, how it has been made available to City GIS users, how the data is being used, and what type of derivative products we have been able to generate from the LiDAR datasets to date.

i) Clark County Wetland Model

Dan Kaler, Clark County GIS Coordinator

Clark County acquired LiDAR data and Infrared photography in 2002. Using this data, Clark County GIS staff developed a GIS Model to identify potential wetland locations. This presentation will provide a summary of the data, procedures and initial results for the Clark County Wetland Model. Additionally, this presentation will review the technical specifications to improve the quality of future models.

ii) LiDAR Best Practices – Sensor and Collection Characteristics for Acquisition in Heavy Vegetation

Jamie Young, Sanborn

The paper will discuss the best practices for collection and processing of LiDAR data. I will discuss this process using Single sensor collection as well as multiple sensor and different vendor collection. In addition, the integration of different processed data sets into a large scale project and how the effects of this process can yield problems will also be discussed. Although, all the data sets yield the required accuracies there can be problems with the adjoining data sets. An analysis will be done regarding the best approach to LiDAR collection in heavy vegetated areas and what the result will be based on the different approaches of collection and processing.

TRACK C Mobile GIS and the Enterprise
10:30-12:00 Instructor: Rhett Harman, Marshall & Assoc.

12:00 - 1:30 PM

LUNCH WITH GUEST SPEAKER
EXHIBIT HALL OPEN

Lunch served in the Heritage Ballroom next to the exhibit hall, Main Floor

Guest speaker: Bernie Szukalski, ESRI, Director of Technology Strategies

Now the Web can be leveraged for robust processes, modeling, and workflows, making the vision of the Web as a true GIS platform a reality. ArcGIS software now deeply embeds Web service capabilities and offers easy authoring, publishing, and integration of GIS services, and a variety of opportunities and choices for users. We'll take a look at how things have evolved, where things are going, and learn more about integrating Web-based GIS with other kinds of services, local content, and rich media.

TRACK A GIS Applications to Expedite Work Flow

1:30-3:00 Moderator: Steve Duncan

i) Flexible GIS Integration

Chuck Lewis, Geonorth

Integrating GIS with other activities in your organization does not have to result in a separate rigid application for each business function. Today's GIS development choices and vendor APIs allow an organization to have an integrated solution that works with one or several systems, and that can change as needed. Typical integration environments include permitting, dispatch, maintenance management, property information systems, and document management. This presentation will review solutions that are in place at a variety of organizations. The focus will be on how they were successful in meeting the needs of their users without a huge investment. Application flexibility through data-driven functionality will also be discussed.

ii) Publishing Map Services with ArcGIS Server Presented

Scott Moore, ESRI, Olympia WA

With ArcGIS Server 9.2, it is easy to serve maps and other GIS resources over the Web and build Web applications that access your services without writing any code. This seminar will introduce you to our new browser-based tool, ArcGIS Server Manager. This tool makes it easy to set up and administer your server, publish GIS services, and create Web mapping applications including those that combine services from ArcGIS Server, ArcIMS, ESRI ArcWeb Services, and Open Geospatial Consortium, Inc., Web Map Service (OGC WMS) servers.

iii) GIS Project Organization and Workflow

Bob Pool, GIS Manager, Clark County

This presentation will look at the process of fielding a GIS request for a map. It will demonstrate how Clark County processes custom map requests using custom tools developed in ArcMap as part of the ClarkView 9.x product. ClarkView 9.x provides a framework for organizing and publishing GIS project results. The result is that users are able to quickly and easily recreate a hard copy product. Project results can be easily published in maps and layers so that others throughout the organization can reuse them.

TRACK B GIS in Education

1:30-3:00 Moderator: Brandt Melick

i) Case Studies with Local Schools: Rachel Carson Center (needs based presentation)

Tim Whitley, 4J School District, Eugene, OR

Classroom needs for GIS: The Rachel Carson Center for Natural Resources at Churchill High School is a 2 year environmental science program for juniors and seniors in high school. The program has 90 students who spend one class period every other day learning about the environment and natural resources through seminar style classes, field studies and participation in independent on-line classes including botany, ecology, environmental law and technical writing. Students earn high school credit in science, social studies and language arts. Mr Whitley helped to develop the program 9 years ago in response to the state requirements that all school districts create certificate of advanced mastery (CAM) programs in six different career focus areas including natural resources.

In this session, Mr Whitley focuses on program needs and establishes a foundation for subsequent discussions in this session.

ii) Case Studies with Local Schools: GIS Short Courses at Winterhaven (experiences based presentation)

Rex Fisher, TriMet

Classroom experiences with GIS technology: Winterhaven School is an accelerated math, science, and technology focus option school (formerly called a "magnet" school) within the Portland School District. Winterhaven is unique among schools within the district in that parents are encouraged to share their skills and talents with students by teaching short, six-week elective courses.

In response to an appeal to the parent community for GIS instruction, Mr Fisher agreed to lead an introductory GIS class. Over the years, Mr Fisher introduced a series of geospatial software solutions in search of the best fit solution for kids. In this session he'll describe experiences with ArcView, Google Earth and Microsoft Virtual Earth

iii) Kids GIS Project (solutions based presentation)

Brandt Melick, City of Springfield, GIS Coordinator

Open Source Solutions for GIS in the classroom: GIS Professionals from around the state of Oregon have come together to provide a productive and harmonious learning environment for kids. Taking special measures to embrace open source, public domain software and open, non-proprietary data structures, the aim is to provide an enduring program to educate and enable future generations. Although still in its early stages, there are many opportunities for professional involvement.

In this session, Mr Melick provides a project overview, project status and opportunities for broader involvement by the GIS community.

TRACK C Server GIS: An Overview and Functional Demonstrations of ArcGIS Server 9.
1:30-3:00 Instructor: Scott Moore

Learn how you can extend the deployment of GIS capabilities through enterprise systems architecture. This session will provide an overview of the ArcGIS 9.2 architecture and demonstrate ArcGIS Server functionality at different deployment levels. The demonstration will also showcase integrating with an ERP Asset Management system.

3:30 – 5:00 PM

CONCURRENT TRACKS

TRACK A Creating and Using 3-D City Models
3:30-5:00 Moderator: Matthew Hampton, Metro

Visualizing spatial data in three dimensions can be a very powerful way to present information. Urban settings are particularly suited for these methods, however the wide variety of 3D-solutions can be daunting to approach. Learn how industry specialists and analysts have found solutions to different desired outcomes with respect to the 3rd dimension. From photorealistic environments created in specialized 3D graphics applications to simple building masses in a GIS - this session promises to inform anyone of their options with respect to 3D visualization.

i) City of Portland 3-D Building Model: Development and use with ArcGIS, Sketchup, and Google Earth

Kevin Martin, GIS Analyst, City of Portland Bureau of Planning

The Bureau of Planning created and maintains a 3D model of all of the buildings in downtown Portland. We've been using various applications – primarily ArcGIS, SketchUp, and Google Earth – to analyze, visualize, and present this 3D information to both City staff and the public. We have been working with the architect and developer community to acquire 3D models that they create and incorporate them into a “building repository” that will be publicly accessible. Recent acquisition of LiDAR data will expand the model to other areas of Portland. The purpose of this presentation is to provide an overview of how this 3-D model was developed and how it is used, with project examples from each of the software applications mentioned above.

ii) **3D Environments and Design: A Sense of Place**

Donald Newlands, CEO, Newlands and Co.

Donald Newlands from Newlands & Company, Inc. (nc3d.com) will show examples of his firm's 3D visualization work on large transportation and urban design projects and discuss how 3D GIS data can be used to develop visually accurate and detailed contexts to help decision makers and the public understand the impacts of design proposals.

iii) **View-Shed Function as a Predictor for the Reception of Line-of-Sight Radio Waves**

Kevin Devito, CEO, Cyber City

CyberCity 3D LLC is a 3D geospatial database and visualization software company with offering products enabling state-of-the-art communication of GIS and engineering data through high-resolution, geo referenced, fully textured 3D computer models that can be visualized, explored, and manipulated in real time. Its interactive models and databases can be interfaced with standard industry data formats. They can be streamed over the Web, exported as shape files, and written into personal geodatabase (PGB) or, ArcSDE, into a commercial database. Clients included engineers, planners, architects, GIS analysts, government agencies, and entertainment producers.

A Geographic Information System (GIS) view shed is the result of a function that determines, given a terrain model, **which areas on a map can be seen from a given point(s), line or area.** In the communications industry, this function has been used to model radio wave coverage's and to site transceiver towers for cellular phones. However, there are errors involved with this function and, without the requisite data, it cannot account for **building heights that may affect visibility in urban areas.** ESRI Online Geoprocessing Solutions deliver the ability to accurately show line-of-sight (LOS) radio wave coverage in order to establish the viability of replacing existing field methods with GIS view shed analysis.

TRACK B Statewide GIS Data and Photos coming to the WEB

3:30-5:00 Moderator: Cy Smith, Oregon Statewide GIS Coordinator

Cy Smith, Oregon Statewide GIS Coordinator, will lead this session showcasing new Web based services delivering statewide data to local users. The navigatOR project is a show case example.

TRACK C Working with Terrains and LIDAR datasets in ArcGIS 9.2

3:30-5:00 Instructor: John Sharrard

The release of ArcGIS 9.2 introduces the terrains data structure within the geodatabase. Terrains allow for high performance access to very large surface models. Also introduced at the 9.2 release are new tools for working with LIDAR data sets. Together, these new functionalities greatly expand the users ability to work with massively large Triangular Irregular Network (TIN) data sets.

5:00 – 7:00 PM

VENDOR HOSTED SOCIAL

Location: Exhibit Hall

7:30 AM

Conference Registration Opens: Lobby

8:30 – 10:00 AM

CONCURRENT TRACKS

TRACK A Open Source GIS

8:30-10:00 Moderator: Aaron Racicot, GIS Programmer, Ecotrust

Presentations from users integrating open source software and propriety GIS software to control licensing costs, plus take advantage of advanced features now offered in many OSS products

i) OSGeo

Aaron Racicot, GIS Programmer, Ecotrust

The Open Source Geospatial Foundation (OSGeo) is an umbrella organization providing community support and a common framework to house efforts by the Open Source community for "all things maps". A quick overview of the OSGeo as an organization will be provided as well as showcase how some of the ongoing efforts within the organization can help your efforts developing applications. From open access to geographic data to application frameworks for both the desktop and web-based applications, the OSGeo has something for everyone interested in geospatial technology. The first year and a half of the foundations existence has paved the way for a healthy and vibrant community working toward a common goal of open development and open access in the geospatial community. The sky is the limit when dealing with Open Source geospatial technology and the OSGeo foundation provides an open and inviting venue for that development to take place... come and join us.

ii) An Open Source Application for Users of ORMAP

Dean Anderson, IT Director, Polk County

The ORMAP project is a State of Oregon Project that will develop a statewide property tax parcel base map that is digital, publicly accessible, and continually maintained. The ORMAP ESRI User Group is a group within ORMAP, comprised of approximately 14 Oregon counties and Department of Revenue, that is developing a common data structure and tools for managing taxlot data using the ESRI ArcMap 9.2 software. One of the many challenges facing this group is how limited programming resources can be shared and resulting software distributed to participants. The Tools Committee, a subset of the User Group, has found a solution and is developing a series of tools in an Open Software Environment. Version 1.1 of the software is being released this Spring. This talk will introduce the ORMAP project, past developments, and the common mapping structure. The talk will then focus on the shared software environment, group structure, and procedures used to develop and share software in this open and cooperative development environment. A short example of the "sourceFORGE tools" used for sharing software will be presented.

iii) Open Source in Government: From "Why?" to "Why Not?"

Deborah Bryan, Director, Oregon State University Open Source Lab
Public Sector Communities Manager & GOSCON

Somewhere between the hype and the promise, government agencies are quietly adopting open source tools, applications, and adapting open source software development methodologies to their projects. What's sticking, and what's stuck, in state and local government adoption across the US, from the West Coast to Colorado to Virginia. Drawing on a national perspective of the adoption of open source in the public sector, the speaker will provide a current snapshot of how agencies are getting started with open source as well as some of the early entrants in the "lessons learned".

TRACK B GIS Program Management – In Action!

8:30-10:00 Moderator: Carol Hall, Metro

i) How Do You Do? – Performance Measures for Enterprise GIS

Greg Babinski, King County GIS Manager

City councils, county auditors, and the public are more frequently expecting performance monitoring to ensure that public revenue is being spent well and that municipal services are cost-effective. GIS based analysis of various performance measures is a common application for many municipal, county, and regional government services.

But what if your agency expects performance measures of your GIS too? What if they expect performance measures and reporting within the context of your agencies budget process? Gasp! How can you turn performance monitoring into a tool that can help you manage your GIS better, build stakeholder support, and improve the budget process?

This presentation will outline the King County GIS (KCGIS) Center's strategy and methods to embrace performance measurement and reporting.

Key aspects of the KCGIS Center's portfolio of performance measures will be described. The process to identify valid measures and to establish linkages with key stakeholder agencies will be explained.

The importance of linking specific services that your GIS provides to key measures and ensuring that the factors that can affect the actual performance are clearly understood will be outlined. Finally, strategies to use performance measures as a tool to support your budget will be described.

The KCGIS Center approach may benefit other city, county, or regional enterprise GIS operations utilize performance measurement to manage and develop their programs.

ii) GIS Program Management Methods and Case Studies

Carol Hall, GIS Supervisor, Metro

Increasingly senior level GIS specialists are finding themselves promoted to supervisory positions that become quasi-technical and quasi-managerial. There are advantages to having supervisors who understand the technical work. The disadvantage is that these supervisors don't always have the skills and tools available to professional managers.

This presentation will highlight some challenges and lessons learned in the career of a technically trained supervisor of GIS staff and projects.

iii) PMP Certification, ISO and Quality Management as it relates to GIS

Baron Howe, L3 Communications – Services Group, Enterprise Geospatial Solutions

This presentation will briefly discuss PMI's certification program and the benefits of a Quality Management System to a GIS program.

TRACK C ESRI Training: Python Programming – Unit I

8:30-10:00 Instructor: Alan Coyle, ESRI Olympia

The ArcGIS geoprocessing framework includes a scripting environment, and Python[®] is the scripting language included with ArcGIS. This session introduces the Python scripting language and shows how it can be used to access and automate geoprocessing functionality. Attendees will learn Python scripting syntax and how to write scripts to automate geoprocessing operations. They will also learn how to incorporate Python scripts as custom tools in ArcToolbox. This session is designed for experienced ArcGIS users who want to learn how to automate everyday processes or create complex analytical scripts. ARC Macro Language (AML[™]) and Avenue[™] programmers who want to write scripts for ArcGIS will also find the session of interest.

TRACK A Natural Resource Spatial Analysis

10:30-12:00 Moderator: Michael Wing, Oregon State University

i) Modeling Ecological Systems in Western Washington for the Northwest Regap Project

Tom Miewald, Sanborn Mapping Company

The USGS Gap Analysis Program (GAP) is maps regional scale habitat types for assessing individual and community species. Recently, the GAP Program contracted with Sanborn Mapping Company to develop a map of Western Washington using NatureServe's *Ecological Systems of the United States* classification scheme. Classification and regression tree analysis (CART) was used for the majority of the vegetation modeling and included over 200,000 reference points. Results provided a more detailed picture of vegetation heterogeneity across a large and complex region than has been available to date. The overall mapping accuracy for all the ecological systems was 81% using a fuzzy accuracy approach and 65% using a deterministic approach.

ii) Spatial Analysis of Elk Landscape Use PatternsWalt Van Dyke¹, Miranda Wood¹, Hanna Stone², David Main¹, & Don Whittaker¹¹Oregon Department of Fish and Wildlife²Oregon State University

A study of elk group movements and associated elk management strategies were examined using GIS. Seventy-three radio-collared cow elk were monitored for 3 years, starting in 1999, resulting in 2,307 location estimates in the Beulah, Sumpter, and Murderers Creek Wildlife Management Units (WMUs) of northeastern Oregon. Using ArcGIS software and extensions, probability density home ranges were calculated for specific elk groups, which were defined a priori. Using the home ranges as boundaries, landscape use patterns within the home ranges were determined for vegetation associations and land ownership. The GIS analysis validated the management strategy and also providing information about the spatial movement and behavior of elk that was previously unavailable.

iii) Evaluating Oregon Communities At Risk Using the Wildfire Risk Explorer

Kuipo Walsh, Institute for Natural Resources, Oregon State University

The Wildfire Risk Explorer (<http://www.oregonexplorer.info/Wildfire/>) is an interactive Internet portal that provides information to assess wildfire risk in Oregon. The portal was created by the Institute for Natural Resources, OSU Libraries, and Oregon Department of Forestry in an effort to make GIS data used to develop Oregon's 2005 Statewide Communities at Risk from wildfire assessment available. The web portal facilitates access to data and information from a wide variety of sources to citizens, community wildfire protection planners, and wildfire agency staff actively involved in natural resource use, policy and planning. Users can search for and download information, map spatial data, and generate statistics about a particular area. GIS analyses supported by the Wildfire Risk Explorer are presented.

TRACK B What a Difference a Year Can Make – Web Mapping and Geospatial Inflection: Technology Trends Update

10:30-12:00 Moderator: Geoff Zeiss, Autodesk

This session will kick off with a technology trends update from Geoff Zeiss, visionary and author of the Geospatial Blog "Between The Poles". Geoff will discuss his regional and global perspective on how network infrastructures are maintained and managed by utilities, telecommunications companies, government and transportation agencies. Geoff will also discuss the topic of a Geospatial Inflection Point: Web 2.0, Open Source, and CAD/GIS/BIM Convergence.

i) Leveraging Google Earth

Andrew Morsell, P.E. of Spatial Integrators, Inc.

Google Earth has been instrumental in bringing GIS to the mainstream masses. This platform is robust and provides a very compelling end-user experience with some unique features including real-time terrain model imagery draping and support for 3D models. It is relatively easy to integrate with via their programming interfaces and KML specifications, and MapGuide Enterprise and MapGuide Open Source are ideally suited as back-end spatial servers to deliver content on top of the information already being made available in Google Earth. This talk will introduce you to the concepts of integrating MapGuide Enterprise or MapGuide Open Source with Google Earth.

- Use the out-of-the-box KML features of MapGuide
- Access MapGuide data sources programmatically
- Learn how Google Earth network links work.
- Learn how to pass the Google Earth bounding box information to your custom pages.
- Use the MapGuide and FDO APIs to extract only the spatial information that the user can see.
- Use the new WMS capabilities of Google Earth with data from MapGuide

ii) Migration from MapGuide 6.5 to Mapguide Enterprise

Shreepad Ranadive, ValueCAD Associates

ValueCAD Associates and City of Dublin have worked closely on developing an extensive and complex web solution using Mapguide 6.5. This has resulted in the development and implementation of WebGIS, an Intranet application used by various organizations in the City to access spatial and related data in aid of their individual functions.

With the availability of the New Mapguide Enterprise Software, the City has migrated its existing Mapguide 6.5 application to Map server enterprise. This presentation will talk about the steps involved in that Migration. The topics to be discussed will include:

- Status of the City of Dublin Intranet website
- Map server Enterprise in general (Studio, Web tier and Map server)
- Steps involved in migration.
- Issues and Tips related to migration
- Use of .net as web tier
- Migration of custom applications
- ASP to ASP.net
- Features of Ajax and Existing JavaScript
- MapGuide studio ease of use.
- FDO and Database access (SQL server , ESRI SDE)
- Sample Mapguide server report scripts will be shared

TRACK C Producing Information from Imagery, Including Feature Extraction from Aerial Photos

10:30-12:00 Instructor: Brennin Graine, Visual Learning Systems

12:00 – 1:30 PM

LUNCH WITH GUEST SPEAKER
EXHIBIT HALL OPEN UNTIL 2:00PM

Lunch served in the Heritage Ballroom, Main Floor

Rob Roy, Microsoft

Virtual Earth for Geospatial Intelligence

The Microsoft Virtual Earth mapping and location intelligence platform combines visually appealing maps, earth imagery and 3D urban models and terrain to enhance business intelligence, improve data sharing, and help organizations increase efficiency and citizen service.

1:30 – 3:00 PM

CONCURRENT TRACKS

TRACK A/B The Digital Earth - A Survey of Applications for Global Visualization and Exploration

1:30-3:00 Moderator: Mark Bosworth, GIS Supervisor, Metro

Presenters:

Rob Roy, Microsoft - Virtual Earth
Bernie Szukalski, ESRI - ArcExplorer II
Matthew Hampton, Metro - GoogleEarth
David Percy, Portland State University - WorldWind

This will be a panel discussion/demonstration of the various solutions available for global data exploration. Panelists will demonstrate applications unique to the platform in a "real world" context. Group discussion will further explore the particular strengths of each platform.

TRACK C ESRI Training: Python Programming – Unit II

1:30-3:00 Instructor: Instructor: Alan Coyle, ESRI Olympia

3:30 – 5:00 PM

CLOSING SESSION & RAFFLE

People's Choice Poster Award - Winner will be announced. Ballot in Registration Packet.

Raffle - Raffle tickets will be handed out at the door. You must be present to win.

Grand Prizes

- I-Pod Nano
- Turn-by-Turn Auto Navigation Unit
- Portable DVD player
- 2 X Microsoft MapPoint 2006 w/ GPS Locater
- 3 X Autodesk MapGuide Studio 2007

THE CONFERENCE AT A GLANCE

DAY 1	TRACK A Sessions	TRACK B Sessions	TRACK C Workshops
7:30-8:30 AM	REGISTRATION		
8:30-10:00 AM	Serving Images and Data on the Web Moderator: David Percy	LiDAR is Coming to Town: New Frontier for Geoprocessing Moderator: Ian Madin	ESRI Training – Talking about Geodatabases Instructor: John Sherard
10:30-12:00 PM	Open Solutions: Integrating into your GIS Software Suite Moderator: Eric Bohard	Integrating LiDAR Technology with GIS (Planning, Public Works and Natural Resources) Moderator: Doug Smith	Mobile GIS and the Enterprise Instructor: Rhett Harman
12:00-1:30 PM	LUNCH WITH GUEST SPEAKER Bernie Szukalski, ESRI		
1:30-3:00 PM	GIS Applications to Expedite Work Flow Moderator: Steve Duncan	GIS in Education Moderator: Brandt Melick	Server GIS: An Overview and Functional Demonstrations of ArcGIS Server 9 Instructor: Scott Moore
3:30-5:00 PM	Creating and Using 3-D City Models Moderator: Matthew Hampton	Statewide GIS Data and Photos coming to the Web Moderator: Cy Smith	Working with Terrains and LiDAR Datasets in ArcGIS 9.2 Instructor: John Sherrard
5:00-7:00 PM	VENDOR EXHIBIT AND SOCIAL		

DAY 2	TRACK A Sessions	TRACK B Sessions	TRACK C Workshops
8:30-10:00 AM	Open Source GIS Moderator: Aaron Racicot	GIS Program Management – In Action! Moderator: Carol Hall	ESRI Training- Python Programming – Unit I Instructor: Alan Coyle
10:30-12:00 PM	Natural Resource Spatial Analysis Moderator: Michael Wing	What a Difference a Year Can Make- Web Mapping and Geospatial Inflection Moderator: Geoff Zeiss	Producing Information from Imagery, Including Feature Extraction from Aerials Instructor: Brennin Graine
12:00-1:30 PM	LUNCH WITH GUEST SPEAKER Rob Roy, Microsoft		
1:30-3:00 PM	The Digital Earth - a Survey of Applications for Global Visualization and Exploration Moderator: Mark Bosworth		ESRI Training- Python Programming – Unit II Instructor: Alan Coyle
3:30-5:00 PM	CLOSING SESSION & RAFFLE		