

2000 WLIA Conference Schedule

TUESDAY, February 29

8:00 am – 4:00 pm	Registration	Ballroom foyer	
9:00 am – 4:00 pm	Pre-conference Workshops	Main Lodge and Forum	
Noon – 1:00 pm	Workshop Lunch (9-4 workshops)	Newport Grill	<u>Workshop Locations:</u>
5:00 – 7:00 pm	WLIA Board of Directors Meeting	Loramoor B	See Page 6

WEDNESDAY, March 1

7:30 am – 8:30 am	Breakfast with the Boards	Galewood D	
8:00 am – 5:00 pm	Registration	Ballroom foyer	
8:00 am – 3:30 pm	Poster Contest Registration	Ballroom foyer	
8:00 am – 4:45 pm	Exhibitor Setup	Forum A&B	
8:30 – 10:00 am	Opening General Session	Grand Ballroom	<u>Wednesday Concurrent Sessions:</u>
10:15 – 11:45 am	Concurrent Sessions	→	Policy Track Evergreen
10:15 – 11:45 am	Beginners' Session	Galewood C	Applications Track Loramoor A
noon – 1:30 pm	Lunch and Keynote Address	Grand Ballroom	Techniques Track Loramoor B
1:45 – 3:15 pm	Concurrent Sessions	→	Vendor Track Loramoor C
3:30 – 5:00 pm	Concurrent Sessions	→	
5:00 – 8:00 pm	Opening Reception in Exhibit Area	Forum A/B	
6:00 – 7:00 pm	Poster Session Judging	Forum area	

Thursday, March 2

7:30 – 8:30 am	Past Presidents' Breakfast	Room 4311	
8:00 am – 5:00 pm	Registration	Forum Foyer	
9:00 am – noon	WI Land Information Board	Room 4211	
8:30 – 10:00 am	General Session	Forum C	
10:15 – 11:45 am	Concurrent Sessions	→	<u>Thursday Concurrent Sessions:</u>
10:30 – noon	Exhibits	Forum A/B	Policy Track Forum C
noon – 1:30 pm	Awards luncheon and speaker	Grand Ballroom	Applications Track Westgate A
1:30 – 6:00 pm	Exhibits	Forum A/B	Techniques Track Westgate B
1:45 – 3:15 pm	Concurrent Sessions	→	Vendor Track Westgate C
4:00 – 5:30 pm	Concurrent Sessions	→	
1:45 – 5:00 pm	Educators' Sessions	Galewood D	
5:30 – 6:30 pm	WI Land Information Officers Network (LION) Annual Meeting	Grand Ballroom C	
6:00– 9:00 pm	WI Tribal GIS Users Group	Galewood C	
6:00 – 8:00 pm	WI Intergraph Graphics User Group	Westgate A	
6:00 – 8:00 pm	WI ESRI Users Group	Galewood D	

Friday, March 3

9:00 – 10:30 am	Policy Forum: GIS and Society	Grand Ballroom A/B
10:30 – noon	Town meeting	Grand Ballroom A/B
12:30 – 2:00 pm	WLIA Board of Directors Meeting	Galewood D

THANK YOU to our Presenters and Exhibitors,
who have donated their time and expertise to make this
conference informative and stimulating.

WORKSHOPS

Workshops are held on **Tuesday, February 29.**

WLIA reserves the right to cancel and refund registration fees for any workshop.

If you register for a full-day or two half-day workshops, your registration fee includes lunch.

Workshop 1

Legal Issues in GIS/LIS I

William S. Holland, *CEO GeoAnalytics*

9:00 AM – NOON Evergreen II

Workshop 2

Legal Issues in GIS/LIS II

William S. Holland, *CEO GeoAnalytics*,

1:00 PM – 4:00 PM Evergreen II

Workshop 3

Creating DEMs and Updating Orthophotos

Frank Scarpace, *Professor, UW-Madison*

Jim Gage, *Research Program Manager, Environmental Remote Sensing Center, UW-Madison*

9:00 AM – 4:00 PM Loramoor C

Workshop 4

Practical Dimensions of the Next Era of Remote Sensing

Jim Gage, *Research Program Manager, UW-Madison Environmental Remote Sensing Center (ERSC)*

Tom Lillesand, *Professor, UW-Madison and Dir., ERSC*

Jonathan Chipman, Patrick McEnancy, and Timothy Olsen, *ERSC*

9:00 AM – NOON Westgate C

Workshop 5

Building GIS from Imagery

Kurt Schwoppe, *ERDAS*

9:00 AM – NOON Grand Ballroom C

Workshop 6

Desktop Photogrammetry for the GIS User

Kurt Schwoppe, *ERDAS*

1:00 PM – 4:00 PM Grand Ballroom C

Workshop 7

The Use of Soils Tabular and Spatial Data

Ken Lubich, *State Soil Scientist, Natural Resource Conservation Service (NRCS)*

Kent Pena, *GIS Coordinator, NRCS*

Carl Wacker, *Soils Database Manager, NRCS*

1:00 PM – 4:00 PM Westgate C

Workshop 8

Fundamentals of Cartography and Map Design

Ted Koch, *Wisconsin State Cartographer*

Robert Gurda, *Assistant State Cartographer*

9:00 AM – 4:00 PM Evergreen I

Workshop 9

Implementing a Geodatabase in ArcInfo 8

Walter Potts, *Services Manager, Minneapolis Region*

9:00 AM - NOON Evergreen III

Workshop 10

Customizing ArcInfo 8 with VBA

Walter Potts, *Services Manager, Minneapolis Region*

1:00 PM – 4:00 PM Evergreen III

Workshop 11

A Model Curriculum for GIS Professionals - Proposal, Critique, Discussion

William E. Huxhold, *Professor, UW-Milwaukee*

9:00 AM - NOON Westgate B

Workshop 12

Coordinate Systems

Jerry Mahun, *Instructor, Madison Area Technical College*

1:00 PM – 4:00 PM Westgate B

Workshop 13

Metadata for Managers

Bruce Westcott, *SMMS Product Manager, VT*

AJ Wortley, *State Cartographer's Office*

9:00 AM – 4:00 PM Galewood C

Workshop 14

Land Use Planning Using GIS

Math Heinzl, Tom McClintock, Douglas Miskowiak, and Todd Sutphin, *Land Information & Computer Graphics Facility, UW-Madison*

1:00 PM – 4:00 PM Westgate A

Educational Tracks

POLICY AND ORGANIZATIONS • Wednesday, March 1 • Evergreen Room

10:15 – 11:45 am

Data Discovery & Distribution: Building Bridges between Communities on the Information Highway *AJ Wortley & Ted Koch, State Cartographers Office, Bruce Westcott, SMMS, Diann Danielsen, Dane County LIO, Jerry Sullivan, OLIS, Mike Czechanski, WGNHS, Tom Lillesand, ERSC-UW* – This session is an exploration of the connection between spatial data creators or custodians and end-users. We will cover topics ranging from data documentation (metadata) to clearinghouses and data sharing to data distribution in three parts. The first part will focus on the "Big Picture" and take a look at federal and state initiatives that are shaping the spatial data landscape and vision. In part two, a panel of Wisconsin land information professionals will share their experiences and experiments in this arena at the local level. Our final session will provide a moderated forum where the audience can discuss these and related ideas with the panel and presenters.

1:45 – 2:15 pm

The Lincoln County GIS-Department Heads Work Group-Teamwork in Action *Tom Cadwallader, UWEX & John Mulder, Lincoln Cty.* – In 1997, a group of Lincoln County Department Heads met and committed themselves to taking their land records modernization plan and making it a reality. The department heads, representing departments ranging from Forestry and Highways to Zoning and Land Conservation, also made the decision to formalize their effort by forming the GIS-Department Heads Work Group (GIS-DHWG) which was formally recognized by the Board of Supervisors in September of 1997. Their mission has been to "gather and analyze information related to geographic information system development, oversee implementation and make recommendations to the Records Systems Committee". The GIS-DHWG has had many accomplishments, including the adoption of a countywide rural addressing program, creation of a GIS Technician position, the development of numerous GIS products, and perhaps most important, an efficient coordinated decision making process.

2:15 – 2:45 pm

Data Accessibility in the Land Of OZ *Damon Anderson & Ron Voigt, Ozaukee Cty.* – Ozaukee County has made data accessibility a priority. What data sets are available, costs, and media formats will be discussed. In addition, the organization and function of the Land Information Office within the County will be presented.

2:45 – 3:15 pm

Achieving the Vision of Integrating City and County Data for Public Access *Norm Bushor, MSA & Terry Dietzel, Fond du Lac Cty.* – This presentation will focus on "Bridging Community Boundaries" between the County of Fond du Lac and the City of Fond du Lac. Key issues explored will be Arc/Info and AutoCAD seamless data integration. Sub-topics covered will be data design and workflow issues between City and County personnel, as well as some of the politics and funding issues involved. The presentation will wrap-up with the display of seamless data integration through a public access application.

3:30 – 4:15 pm

Linking Land Use Opinion Surveys to Land Information *Rick Chenoweth & Steve Ventura, UW-Madison, Steve Sheets, Town of Verona* – Land use opinion surveys have become commonplace. Often, however, the survey results do not give direction or imply some action or actions that local units of government might take. Moreover, it is often unclear what information would be useful in bringing a factual basis to the debate when conflicting opinions occur. This presentation reviews land use surveys in Wisconsin, demonstrates a prototype used in Verona Township, and shows linkages between survey opinion items and land information data bases and analyses that might better inform stakeholders in land use issues.

4:15 – 5:00 pm

New Pathways to Professional Geospatial Practice *Timothy Olsen, UW-Madison* – Just as it takes more than the right tools and techniques to make a carpenter, it takes more than a working knowledge of geospatial tools and techniques to make a professional practitioner. The Sloan-sponsored new masters degree in Environmental Monitoring: Remote Sensing and Spatial Information Management is based upon qualitative evaluations of practices and needs identified by professionals, facilitated by innovative educational formats, and built upon a broad foundation of rapidly evolving geospatial technology. The formative curriculum is designed to anticipate and respond to future demands for professional practice. This paper describes how the curriculum itself is designed to evolve along with research, technology, applications and market demands while meeting the goals of both mid-career professionals and recent graduates. As such, the paper addresses how universities may transform geospatial training and education through collaboration with students and 'outside' organizations.

10:15 – 10:45 am

Developing an ArcView Surface Water Integration Prototype for the Wisconsin Department of Natural Resources *Jim Cory, GeoAnalytics* – The Surface Water Integration System (SWIS) Spatial Prototype for ArcView is designed to fulfill a number of criteria based on the needs identified by the Wisconsin Department of Natural Resources (WDNR) user community. First and foremost, the prototype will provide users with tools to query and analyze hydro related data using spatial methods. The foundation for this functionality will be the WDNR 24k Hydro spatial data set. This data set incorporates advanced linear and areal features that provide an intelligent hydrographic framework. Data "events" can be attached to this Geographic Information System (GIS) and related to one another spatially. The SWIS prototype will demonstrate ways in which applications can be built upon the DNRView foundation.

10:45 – 11:15 am

Managing Water Resources with Geographic Imagery *Ben Drake, Looksee, Inc.* – Aerial photographs and satellite imagery are used to manage water resources at many different levels. Watersheds can be accurately delineated by digitizing on geo-referenced aerial photographs and/or satellite images. Imagery can also be used to identify and measure the extent of wetlands or sensitive areas. Water quality and at-risk areas can be continuously monitored using the most current sources of imagery. Zoning and taxing of waterfront property and environmental monitoring issues can be assessed using imagery. Lake boundaries and lake density can also be extracted with aerial photographs and/or satellite imagery. This information can then be transformed into a GIS system or used as stand-alone data.

11:15 – 11:45 am

Integrating GIS Data With Fuzzy Set Models To Conduct Surface Water Risk Assessment And Dynamically Map Predicted Priority Rankings *Patrick Robinson & Brian McGee, Robert E. Lee Assoc.* – To assist with future management and protection of surface water resources in Kewaunee County, Wisconsin, a digital model was developed to classify surface water resources based upon risk for impairment and quality of the resource. The model used fuzzy set mathematics to create a classification methodology that reduced data inputs regarding risk factors and resource quality into a ranked output. A fuzzy set model was used because it has the ability to incorporate and diffuse the uncertainty inherent in evaluating water resources that extend over large areas. The model was written in Microsoft Excel and designed to produce predictable output for use with ArcView. The ArcView interface allowed classification outputs to be displayed and mapped within the context of a Geographic Information System database developed for the County. The project was funded through grants obtained from the Wisconsin Department of Natural Resources and Department of Agriculture, Trade and Consumer Protection.

1:45 – 3:15 pm

Partnerships Across State Agencies *Lisa Olson-McDonald, OLIS* – Many organizations lack the time, staffing, or resources to fully implement a GIS. To solve such a problem, several custom GIS applications have been developed by OLIS staff to meet the needs of three state agencies. This presentation will outline the needs of each agency, highlight some of the problems encountered, and showcase each agency's project.

Combining State and Local Data for Day-to-day Work – *Loren Hoffmann, OLIS* The Municipal Boundary Review Program (within OLIS) reviews annexations and incorporations. MBR now uses GIS technology, with data from both the local and state level in their analysis of these matters. The presentation will focus on how OLIS integrates these data sets, and issues related to this process.

WI Land Information System (WLIS) *Loren Hoffman, OLIS* – The Project Team will report on their work related to the development of a WLIS for the WI Land Council and the WI Land Information Board.

3:30 – 4:15 pm

Technology, Techniques and Applications Used to Locate and Attribute Features for a High Precision Infrastructure GIS Mapping *Bill Hoisington & Jim Westerman, Robert E. Lee Associates* – The session looks at the creation of an infrastructure database for the utility systems in the Village of Ashwaubenon, Brown County, WI. The session covers GPS collection, setting survey benchmarks, "as-built" techniques, system mapping, plus the conversion of the data between Eagle Point, AutoCAD Map, Arc/Info, ArcView, and custom as-built capture software.

4:15 – 5 pm

WI DOT Property Access Determinations *Jon Paul Schwichtenberg - Short Elliott Hendrickson, Inc. Roger Cupps - WI DOT District 2 Planning* – Presentation of the Wisconsin Department of Transportation District 2 - Access Determination Application. The application is a combination of automated tools to help multiple WI DOT District 2 departments streamline the determination of access rights for properties, subdivisions and certain stretches of roadway. The application will allow WI DOT District 2 access to multiple types of data, used in the determination process, via their desktop computers. This process will be incorporated into the driveway permitting process and the Trans 233 process for WI DOT District 2

TECHNIQUES TRACK • Wednesday, March 1 • Loramoor B

10:15 – 10:45 am

The 2000 Census and Using Its Geographic Data *Dan Veroff, UWEX* – The presentation will focus on two main topics. First, how will data generated from the 2000 Census be made available (e.g. when is data released? what formats will be available? for which geographies?) and how, as end users, can the WLIA membership make "sense" of census data.. Second, what role can the membership play in the Census geography programs between decennial census years (like BAS, address list reviews, TIGER improvement) and what role could land information folks play in disseminating census data?

10:45 – 11:45 am

Redistricting for Novices A. *Peter Cannon, WI Legislative Reference Bureau* – Every 10 years the state legislature, 72 counties and hundreds of cities go through the ritual of redrawing their political boundaries, a process called redistricting. Why do we have to do this? What are the legal requirements? What are the criteria to be considered? The context in which redistricting happens affects the professionals who draw the maps. Map makers need to understand the pressures they will be subjected to and why they are being subjected to those pressures. This presentation is designed for people who have not been through the political process and will provide the legal and social framework necessary to understand why we draw the maps.

1:45 – 2:15 pm

Exploring Wisconsin's Land Cover through WISCLAND Data *Bob Gurda, State Cartographers Office* – Many of Wisconsin's landscape features and patterns are evident through the WISCLAND land cover data. Through GIS views and the printed Wisconsin Land Cover map, this presentation will explain the natural history behind the features and patterns, and how satellite imagery interpretation reveals them.

2:15 – 2:45 pm

Aerial Resource Monitoring System *Kurt Schwoppe, ERDAS* – Michigan Department of Natural Resources, Forestry Division, together with ERDAS, developed a system that integrates GPS and an imagery display system onboard a moving aircraft to assist in the identification of common forest infestations. By using a customized version of ERDAS software linked by GPS to display digital imagery of the flight area, they were able to find the exact location of the features on the ground using a "moving-imagery display". This moving imagery display can be used to annotate and assign attributes in real-time, directly on the image and thus creates a real-time airborne inventory system. The particular project, which was the driving force in the development of the system, was pest infestation such as gypsy moths and pine bark beetles.

2:45 – 3:15 pm

From GIS to Plat Book *Mark Toalson, Map Research Technologies Inc.* – This presentation will highlight the Dunn County Plat Book created for the Dunn County 4H Federation and built with Dunn County GIS data. We will use AutoCAD and ArcView to demonstrate the high and low points of creating a plat book from GIS data. The GIS incorporates data sources including GPS derived section corners and road centerlines, DOQQ's, the County Assessor's database, and thousands of deeds/plats/surveys. The unique printing process allows for a plat book that is updated on a quarterly basis, and allows plat book subscribers to receive pages as they change. The process can incorporate changes or corrections in mid-print.

3:30 – 4:00 pm

Community-Based Land Use Demonstration Project: Dane County, Wisconsin *Todd Sutphin & Ben Niemann, UW-Madison* – As part of the NSDI Community Demonstration Project, Vice President Al Gore selected Dane County, Wisconsin as one of six communities nationwide that will help demonstrate how GIS and other information technologies can aid in land use planning efforts at the local level. To help communities in the decision-making process, the Land Information & Computer Graphics Facility (LICGF, UW-Madison) is developing a "Planning Toolkit," consisting of software modules and tools which help support land use analysis, growth allocation, visualization, and impact assessment.

4:00 – 4:30 pm

Visualization of GIS Data: Needs Based Assessment. Case Study: Dane County, WI *Curt Kodl, UW-Madison* – Visualization software vendors each create software packages with various opportunities and constraints. Sifting through the mountain of technical data can be made more efficient by measuring each software package with a single, adaptable process. By weighting and rating each of the software's strengths and weaknesses in this process, the user can effectively define the best software for your project or office. This Visualization Software Measurement process is a needs-based decision assessment. This process is being developed as part of the Community-Based Land Use Demonstration Project in Dane Co.

4:30 – 5:00 pm

Shaping Dane's Future: Internet Map Serving *Glen Barry, UW-Madison* – The Shaping Dane project is utilizing the Internet to provide information, including interactive GIS maps, to support land use planning decision making. This session will go through the process used to appraise various methods to serve GIS maps over the Internet, will discuss technical issues and requirements, and will present the results of this prototype research.

VENDOR TRACK • Wednesday, March 1 • Loramoor C

10:15 – 11:15 am

Spatially-Indexed Video Databases for Transportation *Steve Gilkey, GEOSPAN* – This session will demonstrate the marriage of advanced video and navigation systems to invent a revolutionary technology for creating spatially indexed video databases. This patented technology implements multiple cameras, at close range, to collect the massive amounts of visual geographic information needed to make Computer Aided Mass Surveying or CAMS possible. The results of an active project with the Minnesota Department of Transportation will be the topic of the presentation.

11:15 – 11:45 am

Utilization of GPS Technology within a GIS System for the Purpose of Vehicle Tracking within the Emergency Response Environment *John Brosowsky, GeoComm, Inc.* – This presentation will focus on the rapidly changing ability to integrate GPS technology into the GIS system for utilization of real-time vehicle tracking. A vehicle tracking system utilized for emergency responders allows the dispatcher to locate all emergency vehicles such as squad cars, fire trucks, water patrol boats, ATV or anything else that moves and has a DC power supply and a two-way radio. The integration of the GPS into a GIS system has been changing very rapidly with the advancements of technology in the area of data transfer and radio communications. These advancements have greatly effected unit costs and capabilities within the system.

1:45 – 3:15 pm

Introduction to ArcIMS *Mike Koutnik, ESRI* – This session will familiarize the audience with ArcIMS, ESRI's 3rd generation internet technology. The session will begin with an overview of the ArcIMS architecture, feature set, administration capabilities, and implementation requirements. The session will continue with a demonstration of ArcIMS capabilities from the user perspective, focusing on the new downloadable browser plug-in. The session will end with a discussion and demonstration of implementation aspects of ArcIMS.

3:30 – 4:00 pm

Building A Foundation For GIS *John Brey, Vierbicher Associates, Inc.* – The attendees of this session will be given a basic view of the elements necessary to develop a Geographic Information System. We will review foundational elements such as geographic framework, parcel mapping, parcel administration and additional mapping. Some of the specific topics to be covered include: coordinate projections, state and county HARNs, GPS surveying and base map development.

4:00 – 4:30 pm

Daily Applications of GIS for Municipal Government *John Brey, Vierbicher Associates, Inc.* – An overview of GIS and how it relates to the function of municipal government. Primary emphasis will be on demonstrating practical applications and benefits of GIS.

4:30 – 5 pm

Parcel Mapping – A Case Study *Aaron Weier, Vierbicher Associates, Inc.* – A community to be named will be the focus to discuss all aspects of parcel mapping, from initial foundational elements and control to demonstration of the completed product. The presentation will also include issues such as data conversion, projections, data discrepancy and how the completed data is handled.

BEGINNERS' SESSIONS • Wednesday, March 1

10:15 – 11:45 am

Introduction to the Wisconsin Land Information Program and the WLIA, *Roxanne Brown, Jim Johnston, Mike Rampolt and other WLIA Board members* – This presentation and discussion will give newcomers to the WLIP a brief and informative overview of the history, key components, and current status. This will be followed with an informal discussion of frequently asked questions.

→ Galewood C

1:45 – 3:15 pm **SEE POLICY AND ORGANIZATIONS TRACK** → Evergreen Room

Lincoln County GIS Work Group

Data Accessibility in the Land of OZ

Achieving the Vision of Integrating City and County Data for Public Access

3:30 – 5:00 pm **SEE VENDOR TRACK** → Loramoor C

Building a Foundation for GIS

Daily Applications of GIS for Municipal Government

Parcel Mapping: A Case Study

POLICY AND ORGANIZATIONS • Thursday, March 2 • Forum C

10:15 – 11:45 am

Comprehensive Plans, Foundational Elements, Horizontal and Vertical Integration *Jerry Sullivan and Cassandra Walbrun, OLIS*

Part 1: A Review of the Comprehensive Planning Legislation

This session presents the statutory changes relating to planning made by the 1999 Wisconsin Act 9. Governor Thompson signed this Budget Bill into law on October 27, 1999. Through the Budget Process, the comprehensive plan definition language and funding mechanism for a planning grant were revised considerably. This legislation provides the framework for developing plans, a grant program which will provide communities an incentive to begin efforts now, and a connection to other planning related actions to provide overall consistency with the plan developed by the local community. The Wisconsin Land Council, in accordance with their previous statutory charge and with the requirements of these new laws, will have added oversight and review. Local governments continue to control their own planning efforts.

Part 2: Components of Comprehensive Plans vis. Foundational Elements

The nine components of Comprehensive Plans will draw heavily on the 15 Foundational Elements, but will also require integration of additional data not in the WLIP. The elements include: Issues and Opportunities; Housing; Transportation; Utilities and Community Facilities; Natural and Cultural Resources; Economic Development; Inter-governmental Cooperation; Land Use; and Implementation. Each element specifically enumerates the need for policy statements, goals, standards, maps and action plans. Especially noteworthy is the need to generate 20 year projections including “sufficiently detailed maps, in 5 year increments, of future residential, agricultural, commercial and industrial uses.”

Part 3: Feedback: Necessary Steps Toward Vertical and Horizontal Integration

This moderated discussion will identify key issues needed to bring local, state, and federal agency data together – whether to generate regional plans at 1 inch to the mile, or a town plan at 1 inch to 1000 feet. Issues may include data models, access, format, delivery, adjustment, edgematching, coincidence, updates, conflation, geocoding, standards, classification, coding, attribution, templates and symbology. The barriers to use of best available data need to be identified, and strategies for integration advanced.

1:45 – 2:15 pm

Costs and Benefits of Parcel Data Conversion *Paul Vastag, Ruekert-Mielke, Inc.* – Wisconsin counties use many methods of parcel conversion, with significant variations in the cost and data quality. There is little information about the benefits generated from digital parcel mapping. Representatives from fifteen Wisconsin counties were interviewed to examine the relationships between quality, cost, and benefits of digital parcel mapping. I will present results of this research, particularly the factors that seemed to have the greatest impact on the benefits realized through digital parcel mapping.

2:15 – 2:45

A Snapshot of the Status and Progress of the WLIP *David Hart, Mike Wenzholz & Ben Niemann, UW-Madison, David Moyer, NGS* – This presentation is designed to present results of the most recent WLIP survey related to the following topics: (1) the status, format, and cost of completing WLIP foundational elements; (2) estimates of the time required to complete WLIP foundational elements; (3) data integration; (4) modernization stages; (5) benefits of the WLIP; and (6) effectiveness of the WLIP. It will also demonstrate the web-based interface for conducting the 1999 WLIP survey.

2:45 – 3:15

Towards a Wisconsin Land Information System *Doug King, DOA* – Presentation will cover the background, development, description, current status and future prospects for a Wisconsin Land Information System.

4:00 – 5:30

The WLIP: Current Status and Strategic Issues *Ted Koch, SCO, Ben Niemann & David Hart, UW-Madison* – The first part of this session will be on the current status of the WI Land Information Program. This will include a summary review of what the program has achieved, and will provide an estimate of what types of investments will be needed to complete the program's foundational elements into the future. This program summary is based on data collected by the 1998 Land Information Office Survey, and the 1999 county land information plans. The second part of the session will be a presentation and discussion of critical issues facing the WLIP during the next three years. The issues presented are those identified during the Land Information Board's strategic planning activities. Time will be allocated following the presentations for audience comments and questions.

10:15 – 10:45 am

Indicators of Housing and Neighborhood Quality in Milwaukee *William E. Huxhold and Joyce Witebsky, UW-Milwaukee* – The University of Wisconsin-Milwaukee is operating a two-year, multi-pronged initiative to support the creation of affordable housing and revitalization of existing housing stock in Milwaukee's central city. The grant created the Housing Research Institute which has an objective to track housing-based indicators over time for target neighborhoods. This study used GIS technology and data from the City of Milwaukee to examine selected indicators of housing and neighborhood quality for the Lindsay Heights neighborhood and how they changed between the years 1993 and 1997. These indicators were then compared to the City's Community Development Block Grant area, and to the city as a whole.

10:45 – 11:15 am

Customizing the Agricultural Research Station GIS for Querying Historical Field Records *Shruti Mukhtyar, UW-Madison* – One of the objectives of the Agricultural Research Station (ARS) GIS project is to facilitate environmentally sustainable land management of ARS land. This presentation will demonstrate a prototype of a Visual Basic application being developed for querying historical field records at the Arlington ARS.

11:15 – 11:45 am

Orthophotos and Conservation Planning *Michelle Staff, Jefferson Cty.* – The use of orthophotos in conservation planning, for example, Farmland Preservation Program, lake priority watershed projects, wetland determinations, and so forth.

1:45 – 2:15 pm

DOT District 2 Six-Year Program Map Tools Application *Glen Ausse, Short Elliott Hendrickson, Inc & Bob Anderson, WI DOT* – Description of Wisconsin Department of Transportation (WiDOT), District 2 application for automating the production of 6-year program maps. The application consists of tools added to ArcView which allow for quick and flexible production of current program maps and the analysis of needs based on Meta-Manager data.

2:15 – 3:15 pm

WISLR (Wisconsin Information System for Local Roads) – Redesigning a Local Roads GIS Database for Wisconsin: Design and Implementation *Vern Andren & Maile Pa'alani, WI DOT* – The Wisconsin DOT is redesigning its statewide Local Roads Database (LRDB) to accommodate growing user needs within the Department and within other state agencies and local agencies for more sophisticated data collection, management, and analysis of local road conditions. The LRDB redesign initiative is being completed in a staged fashion, the status and results of which will be described in the presentation. These stages include a User Needs Assessment, Logical Data and Process Model Development, Physical Database Development and Prototyping, and Implementation. Currently the project is in system design, readying for prototyping.

4:00 – 4:30

GPS/GIS Integration *Alissa Biskie, R.A. Smith and Associates* – We will discuss methods of integrating GPS data into a GIS. Basic GPS data collection concepts will be explored along with common implementation pitfalls. Technical aspects of an actual GPS/GIS implementation will be discussed.

4:30 – 5:30 pm

Implementing Land Management Software in a Municipality: Case Studies Demonstrating Benefits, Costs and Issues *Paul Braun and Tim Penfield, GeoAnalytics, Inc.* – Contemporary development management systems can provide organizations with an improved level of public service and a more efficient internal process due to the availability of information. Today's development management systems can assist with the management and tracking of approvals, plan review, permitting, inspections, complaints, work orders, special assessments and appraisals. Increasingly these components integrate with existing spatial data and systems, such as geographic information systems (GIS), enabling communities to visualize trends in their communities, manage data more effectively and make more informed decisions. This presentation will outline a design methodology specifically aimed at implementing such systems and utilize project case studies to illustrate important milestones in the methodology. Focus will be on what you can do to prepare for implementation, how to plan for system integration and analyzing different implementation strategies, cost alternatives, and documented benefits.

TECHNIQUES TRACK • Thursday, March 2 • Westgate B

10:15 – 11:45 am

Fly Dane 2000 - Development of Orthophotography in Dane County *Frederic Iausly, Kirk Contrucci, et al., Dane Cty.* – The Dane County LIO is developing a Year 2000 digital orthophoto project to improve upon imagery acquired in 1995. Users of Dane County orthophotography have expressed interest in acquiring higher resolution imagery and a more accurate terrain model than what is currently available. Developing these more detailed products is a larger effort than Dane County can accomplish alone. The Fly Dane 2000 project is based on a community partnership of local, state and federal agencies and private industry. The presentation will cover the development of partnerships, technical aspects and current status.

1:45 – 2:15 pm

New Tools for Integrating Enterprise Geospatial Data in a Multi-GIS Environment - Palm Beach County, Florida, A Case Study *Jim Cory, GeoAnalytics & Kelly Ratchinsky, Palm Beach Cty. (FL)* – Palm Beach County's use of GIS reflects the state of commercial GIS software. No one GIS vendor's software solutions meet the needs of all possible circumstances. In recent years, GIS and database software providers have also realized this obstacle to enterprise data access. In response, the Open GIS Consortium has been working towards the development of a set of specifications that address interoperability. Building on this, Palm Beach County is in the process of implementing an Operational Data Model (ODM) that uses Oracle Corporation's Spatial RDBS technology to serve data to ESRI, Intergraph and MapInfo clients. This presentation describes the status of efforts at the county and lessons learned in implementing a universal geospatial database solution.

2:15 – 2:45 pm

National Hydrography Data - High Resolution Partnerships – *George Heleine and David Nail, United States Geological Survey* – The National Hydrography Dataset (NHD) is currently under development through cooperative efforts of the U. S. Geological Survey, and U. S. Environmental Protection Agency (USEPA). It combines the best of the USGS Digital Line Graph (DLG) and the USEPA Reach File Version 3.0 (RF3). This presentation focuses on an overview of NHD and the procedures for preparing 1:24,000-scale Wisconsin Department of Natural Resources Hydrography data for conflation to 1:100,000-scale NHD for the Namekagon watershed.

SPECIAL SESSIONS • Thursday, March 2

1:45 – 2:45 pm

Educators' Session *Tim Stephenson, EAST Project* – Learn more about the highly successful EAST project. Mr. Stephenson and two students will share detailed information about the EAST Initiative providing specific examples of student projects and student success. They will answer any questions and provide any information necessary about the initiative.
→ Galewood D

3:00 – 5:00 pm

Educators' Session *Mike Koutnik, ESRI* – This session will introduce about 10 high school students to GIS. The students, from Whitewater High School, will focus on a local planning issue: siting of, and demand for, a new public pool. Our thanks go to local units of government who have helped provide data for this session, including Jefferson County, Rock County and Southeast Wisconsin Regional Planning Commission." → Galewood D

4:00 – 4:45

The Cost of Using Existing Digital Spatial Data: What Tribes Should Know *Bryan Marozas, GIS Coordinator, Bureau of Indian Affairs & Jhon Goes In Center, Founder & Former President of Innovative GIS Solutions* – To offset database development costs, the implementation of tribal GIS is often dependent upon existing digital spatial data. Existing digital spatial data is usually available from government agencies and can be obtained either free of charge or at nominal cost. Tribes just venturing into GIS implementation should be aware, however, of the costs associated with transforming existing data sets into functional and operational data layers which will meet the needs of the tribe. This presentation will illustrate some of the more common problems in existing data sets. Illustrating the problems with existing data sets allows tribal managers to be cognizant of these problems so they can adequately allocate funds toward database evaluation and correction processes.
→ Westgate B

4:45 – 5:30 pm

GIS in Indian Country *CloAnn Villegas, Intertribal GIS Council; Carl Hardzinski BIA, and others to be announced* – Tribal governments, like all units of government, are employing GIS technology to more effectively address their issues and aid in their program management. They face demands to its implementation, some of which are unique to tribes and others which are in common with other organizations. This presentation will describe three challenges to GIS use at the tribal level, from the Federal government and Intertribal GIS Council (IGC) perspectives of many years of applications using tribal spatial sets, cooperative ventures with tribes, and technical assistance offered to tribal staff. → Westgate B

VENDOR TRACK • Thursday, March 2 • Westgate C

10:15 – 11:15 am

Integrating Geographical Information Systems with Document Imaging *Edward Ruffolo, Schenck & Associates and Chris Lucas, MSA* – Our session will provide a hands-on demonstration of how to link a Geographical Information System to a document imaging system. Linking GIS and document imaging is one of the key components to extending a GIS system to a comprehensive Land Information System. We will also touch on linking the GIS application to other textual based systems, such as Grantor/Grantee and real estate assessment. The linking of GIS and document imaging will allow for Counties and other public agencies to be able to retrieve land records information directly from GIS base maps, thereby increasing the value of automated land information systems. Currently, many public entities are scanning land records documents. By linking GIS to the land records document imaging system, productivity and quality of service are increased.

11:15 – 11:45 am

Using GIS to Enhance the Property Assessment Process *Chris Vanderheyden, SDS, Inc.* – The Assessor in any jurisdiction is faced with the issue of managing large amounts of information, as well as equitably valuing all the property within their jurisdiction. SDS created Parcel Analyst specifically for the Assessor. Parcel Analyst 2.0 is a powerful view, query and analysis application written with ESRI's MapObjects 2.0 and Visual Basic 6.0. Parcel Analyst has the ability to connect GIS mapping to any ODBC compliant database, providing the Assessor with an easy to use tool to display and analyze their database spatially. Parcel Analyst is being used by assessment jurisdictions to measure the effectiveness of recently completed reappraisal programs, produce market studies for the next reappraisal, and create vital data for use in the appeal process. This session will show how GIS technology can enhance the assessment, such as providing the ability to produce reports on external factors that can effect value such as flood zones or soil types.

1:45 – 2:15 pm

Incorporation of Realtime DGPS and GIS in Association with On-Site Address Assignment *Kathy Liljequist, GeoComm, Inc.* – The merging of the two technologies of Geographic Information Systems (GIS) and Global Positioning Systems (GPS) can give a county the tools necessary to perform the monumental task of accurate and efficient address assignment. The data layer necessary for address assignment is a road centerline file, depicting the county roadway system, with address ranges assigned within the attribute table. The actual address assignment can be performed in the field with a laptop computer, GIS software and a combined GPS/differential correction beacon receiver. The system can be compact and easy to use and can be installed in a vehicle or a backpack. A series of twelve GPS points are taken at the location determined for address assignment. The high and low points are removed and an average is determined for the remaining ten points. The accuracy level will vary depending on the type of equipment that is used.

2:15 – 3:15 pm

Fast, Easy, and Accurate Parcel Mapping with IcoMap V2.2 *Curt Szymanski, Sandeep Menon, UCLID Software* – UCLID Software's IcoMap has evolved substantially since its introduction at last year's WLIA conference. Now available in version 2.2, IcoMap is a complete suite of time-saving tools and features for making your parcel mapping process faster, easier, and more accurate. IcoMap combines its patented Mathematical Content Recognition™ technology with COGO and digitizing tools, making it a 3-in-1 conversion package. Additional features automate checking for closure, file management, parcel ID labeling, land mass and perimeter calculation, and much, much more. This session will feature a live demonstration of building a survey-accurate section map using IcoMap

4:00 – 4:30

Data at Hand: Data Collection Using Personal Digital Assistants (PDAs) and Handheld Computers, *Sean Severson, Technical Assistance Company* – With the introduction of handheld computers or Personal Digital Assistants (PDA's) a new way of collecting data in the field was made possible. Data entry is done only once and can be transferred to a desktop computer's database or GIS from a direct connection from the field via modem. Handheld computers can perform many of the same tasks as laptop computers, but are much more portable and much less expensive. Customized software applications, peripherals such as GPS receivers, modems and keyboards, and their ability of being synchronized with existing GIS and database applications makes these little computers powerful data collection tools.

4:30 – 5:00 pm

Diverse GIS Data with GeoMedia WebMap – *Sherry Coatney and Shane Nicoll, Intergraph Corporation* – This session will describe how to publish live GIS data in various native formats (Intergraph, ESRI, Oracle, etc), across the internet or intranet using Intergraph's GeoMedia WebMap. Emphasis will be on blending vector and raster data in a single web site without the need to translate or re-project the original data. Several existing GIS web implementations will be demonstrated.

Keynote Addresses and Plenary Sessions

Wednesday, March 1

7:30 – 8:30 am → Galewood A

Breakfast with the Wisconsin Land Information Board and the WLIA Board –

Moderated by Mike Romportl, WLIA Representative to the WLIB. Share coffee and rolls with WLIP and WLIA Boards and discuss mutual concerns. Mike will introduce the WLIB and lead a relaxed discussion.

8:30 – 10 am → Grand Ballroom

Conference Opening – What’s New in the Wisconsin Land Information Scene

Welcome and opening remarks from WLIA President Roxanne Brown; Updates from Ted Koch (Chair, Wisconsin Land Information Board), Tim Hanna (Chair, Wisconsin Land Council), Mike Blaska (Executive Director, Office of Land Information Services), Doug King (Chair, WLC Technical Working Group), Fred Halfen (Co-Chair, WLIS Project Team)

Noon – 1:30 pm → Grand Ballroom

Lunch and Keynote Address – GIS in the 21st Century

Jack Dangermond, President, Environmental Systems Research Institute.

Thursday, March 2

8:30 – 10 am → Forum C

General Session – Federal Programs and Partnerships –

Moderator, Nancy VonMeyer Part 1 – Partnerships for Collection and Integration; Part 2 – Access and Distribution for Decision Making *Bob Ader (BLM), Bruce Mackenzie (FGDC), Ray Fox (USGS), Hank Garie (NSGIC), CloAnn Villegas (Intertribal GIS Council)*

Noon – 1:30 pm → Grand Ballroom

Awards Luncheon –

Recognition of the tremendous contributions made by members and friends of WLIA; poster session winners

Keynote Address – EAST Program Tim Stephenson –

EAST is a project-based service learning educational initiative in which students use advanced applications and technologies to solve real world, unpredictable problems. The focus of the program is the intellectual development of students. The goal is for students to develop the critical and creative thinking skills and problem solving abilities necessary for success in the Information Era. Mr. Stephenson will share how this educational initiative began and how it meets the needs of our students today.

Friday, March 3

9:00 – 10:30 am → Grand Ballroom A/B

General Session – GIS and Society: Social, Legal, and Economic Aspects of LIS/GIS

Moderator: Earl Epstein (Ohio State University) Panelists: Carolyn Doeppers (ACLU Privacy Project), Sandra George (Wisconsin Newspapers Association), Ken Pabich (Calumet County LIO), David Fodroczi (St. Croix County)

10:30 – 11:30 am → Grand Ballroom A/B

WLIA Town Meeting – An open forum and discussion of the appropriate role for WLIA in development, implementation and enforcement of information policy issues affecting local and state land information system operation.

11:30 am - Noon → Grand Ballroom A/B

Annual Reports and Business Meeting

2000 WLIA Annual Conference Sponsors

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Robert E. Lee and Associates, Inc. sponsored a portion of a soda break

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Thank you to these conference sponsors. They helped make it possible to provide a quality program.

(Opportunities to help sponsor the conference are still available! – Contact Ann Barrett at 800/344-0421)

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And a special extra thanks to Ann Barrett, WLIA Executive Services Manager, for all the many large and small details that have made this a successful conference.

1999 WLIA Board of Directors

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General Information

Meals: The conference fee includes breaks and lunches on Wednesday & Thursday, the reception on Wednesday, and the Friday am break.

Dress Code: Business casual is appropriate for the entire conference.

Registration/Badges: You will need a name badge to attend all conference functions.

Job Board: We have a bulletin board available near registration for you to post your job openings or resumes.

Opportunities: WLIA runs on volunteers' effort. Many opportunities exist to help make this a more effective and useful organization. Please contact incoming President Steve Ventura if you would like to help:

email: sventura@facstaff.wisc.edu
phone: (608)262-6416;