Web based Solutions to
Infrastructure and Asset Management

Abstracts and Biographies

1

Developing Asset Management software in Alberta - Lessons Learned
Rod Schatz, GIS Manager - Northern Alberta, UMA Engineering

Abstract

Presentation will discuss the lessons learned during the development and deployment of a Municipal Asset Management System in Alberta. The presentation will discuss the elements required to develop an enterprise Asset Management System, the lessons that were learned and how Municipalities are currently interacting with the system.

Presentation will also focus on the tools and techniques available to build systems of this nature such as who the key market players are and how organizations benefit from asset management.

Bio

Rod Schatz is a GIS consultant for the UMA Group based in Edmonton specializing in Asset Management and GIS applications. Rod has a very diverse Spatial IT background ranging from spatial technical architecture, spatial application customization, data conversion and spatial Internet technologies. Prior to joining the UMA Group, Rod spent two and half years building an Asset Management System.

Rod holds a Master of Science degree specializing in Geographic Information Systems and GIS Professional designation (GISP).

2

Managing Municipal Utilities using GIS
Tom Palizzi, Director Sales & Marketing, Azteca Systems, Colorado

Abstract

Public works and utilities organizations are faced with the challenge of maintaining our nation's infrastructure. From roadways to fresh water supply, the task is daunting. Important not only to those that use these systems, law makers and funding sources are ever concerned with keeping costs under control while not disrupting service. As budgets get tighter and demand continues to grow, managers have turned to technology to help them wrestle with keeping tract of schedules, tasks and costs.

Geographic Information Systems and Asset Management Systems have been brought together for the first time to meet the challenge. These two technologies provide off-the-shelf capabilities to help meet the challenge. This presentation will review how GIS and AMMS are combined to manage public works and utilities.

Bio

Tom Palizzi is the Director of Sales and Marketing for Azteca Systems. He has more than fifteen years of experience in GIS, municipal public works and civil engineering. He began his career in engineering consulting services, later becoming the GIS project manager for a large municipal government. He worked for several years at ESRI. Together with the insight of the Azteca team, he helped bring Cityworks, the first and only GIS-based asset maintenance management system to market.

3

Web Mapping and Engineering Drawings
Jeff Jewell and Derik Woo, City of Burnaby

Abstract

As Engineering drawings are inherently spatial, GIS technology provides a powerful extension to database technology for the indexing and retrieval of spatially related documents. The City of Burnaby uses ESRI's ArcIMS and ArcSDE to provide access to its library of Engineering drawings via its browser based WebMap. From simple concept to implementation, the major costs and challenges are associated with the data - its quality, conversion, formats and usage. This presentation outlines Burnaby's experiences on this project.

Bios

Jeff Jewell has a BASc degree in Engineering Physics from University of Toronto. Jeff has worked as Manager, Engineering Systems at City of Burnaby since 1991. His previous work experience includes IT manager with Alberta Municipal Affairs and Alberta Government Telephones. Jeff has training in systems analysis, development, implementation and support with McMaster University and IBM.

Jeff also served as president of URISA BC in 1996, organized its "rebirth" and operating format with budget priced thematic seminars and no membership dues.

Derik Woo has a BA degree in Geography from UBC and is a GIS graduate from COGS. He works as supervisor GIS Services at City of Burnaby since January 2004. His previous experience includes GIS Consultant with ESRI Canada and Systems Analyst with City of Surrey.

4

Vancouver's VanMap-based Business Applications

Zsigmond Balogh, Meng Li, and Jonathan Mark, City of Vancouver

Abstract

VanMap is a mature web GIS implementation at the City of Vancouver. Several versions exist including a staff and three public versions. Recently, the focus of VanMap has changed from simply adding more layers of data to building business applications based on VanMap. The VanMap Notification Application (VNA) helps to automate the process of notifying a group of stakeholders (property owners, property residents or license holders) of a pending municipal activity (zoning changes, plan amendments or community announcements for example) that could affect their property or business in a specified area. The Custom Mapping application provides redlining tools to permit staff to prepare marked-up maps for departmental or City Council reports. Users can create custom maps by adding lines, text, shapes and symbols. Custom maps may be saved to a local or shared network drive so they can be used by co-workers.

Bios

Zsigmond Balogh has been working in Corporate IT at the City of Vancouver for the past five years and developing with MapGuide for two years on a part time basis. Current development projects include Query Builder and Thematic Mapping applications for staff VanMap, and a VanMap-based application to manage the Business Improvement Areas throughout the city. Zsigmond holds a Computer Systems Diploma from BCIT.

Meng Li has worked with the City of Vancouver for 5 years. He is a GIS Programmer Analyst and the VanMap technical team lead. His more than 10 year GIS expertise covers web GIS application development, geo-demographics analysis, terrain analysis and digital image processing. Prior to join the City, Meng had worked with the Australia National Key Centre for Social Applications of GIS for two years.

Jonathan Mark is the City of Vancouver's GIS Manager and has been in that position since 1990. In this role, he is responsible for the City's corporate GIS infrastructure (core software, hardware, and databases) as well as the VanMap implementation. Jonathan's work with the City has also included responsibility for systems in the Health Department, Property Division, and Stores.   Prior to joining the City in 1984, Jonathan taught in the Urban Land Economics Division of the Faculty of Commerce at UBC. He obtained his Ph.D. in Economics in 1977.

5

Asset Management on the Web – Where are we and where are we going?
Jim Higgs, Barry Davis, City of Burnaby
Dan Kaloutsky, Hansen Canada

Abstract

The presentation will inform attendees about the identification of infrastructure in the City of Burnaby, collection of attribute information on that infrastructure and the use of that information to provide more efficient and cost effective expenditures in asset maintenance and rehabilitation. The presentation and dissemination of the conditional assessment and rehabilitation programs can be effectively displayed through intranet and internet mapping products. Hansen Canada will present information on their new browser based application Hansen 8.

Bios

Barry Davis is the Assistant Director Eng, Public Works for the City of Burnaby. He has been employed with the City in that job for 14 years. A professional engineer with an MBA he is responsible for overseeing operations, maintenance and capital works programs for renewal and rehabilitation of roads, water and sewers within the City of Burnaby. This involves asset management for some 690 km of water main, 860 km of streets and lanes, and 1240 km of storm, combined and sanitary sewers within the City.

Jim Higgs is the Infrastructure Management Systems Specialist with the City of Burnaby. He has 28 years of experience in the Engineering Department and is the System Administrator of the Hansen Technologies Application in the City of Burnaby.

Dan Kaloutsky has been with Hansen Canada since 1999 and in 2003 accepted the position of Account Manager for Western Canada. In his new position he is responsible for procuring and developing new client accounts as well as managing existing customers in his region. Prior to this role, Dan was Hansen Canada's Training Manager where his primary responsibilities included overseeing a team of system trainers, assisting in establishing course outlines, aiding the Help Desk with technical problems, and working with government agencies and engineering firms on both a training and consulting basis. He received a Masters degree in political science from Syracuse University, where he focused on intergovernmental relations.

6

Weaving a Solution: Web Technologies and Capital Projects
Bill MacLeod, City of Abbotsford

Abstract

In December 2003 the engineering department came to IS looking for a better way of handling Capital Project data. It was desired to make the data easier to enter and edit and also to provide an improved service to the public. The solution chosen was to replace the existing cumbersome work flow with web based applications for entering, editing and viewing the data. It ties differing technologies together and reduces data redundancy.

Bio

Bill MacLeod, B.Sc. (Geology), has an advanced diploma in GIS from BCIT. With 10 years of mapping and engineering experience, he joined the City of Abbotsford as a GIS Technologist in 1995. Gaining considerable experience in various aspects of GIS, especially customizing ESRI products, he enhanced his technical skills with increased exposure to alternative methods of GIS delivery. Recently, Bill has been overseeing the integration of web-based mapping, using Intergraph products and other web technologies

7

SpatialDirect in the City of Richmond
Stuart Jones, City of Richmond
Mark Stoakes, Safe Software

Abstract

The paper describes how the City of Richmond has implemented a data delivery process that enables both the city staff and the general public to view & download relevant city spatial data that is stored in an ESRI ArcSDE database. Automating the data download process has freed up city GIS staff for other tasks. The paper briefly summarizes the history of GIS at the City of Richmond, discusses the GIS Inquiry Tool and the data download process. The paper closes with a brief description of the underlying data delivery technology.

Bios

Stuart's academic background includes a Bachelor of Arts Degree in Urban Geography and Economics, and a Masters of Arts (Planning) at the School of Community and Regional Planning UBC with an emphasis in transportation and housing. He is an associate member of the Planning Institute of BC and The Canadian Institute of Planners.

Currently teach GIS and Urban Planning at Langara College/University, and provide long range community planning policy services for the City of Richmond. Over the past 10 years he has worked with new methods of integration of databases along with other research methods and techniques that include GIS (Geographical Information Systems). GIS technology has played a key role in long range planning, community, land use, social, housing, environmental planning and research. Current interests include the use of GIS technology and long range forecasting (i.e. population and employment) and the development of new growth models for the City of Richmond.

Mark Stoakes has been a senior consultant with Safe Software Inc. since Feb. 1999 and is currently the Team Lead of the Professional Services group at Safe Software. Mark has had a wide range of data translation and data restructuring experience. Mark has worked on many data sharing initiatives including NIMA, ICIS, LRDW, BC Ministry of Forests, BellSouth and Arkansas Geographic Information Office.

PANEL DISCUSSION

Using Open GIS Services for Internet Mapping Applications
Doug Cates, Moxi Media Inc.

Abstract

This presentation will provide an overview of OpenGIS concepts and a demonstration of an application that uses multiple OpenGIS compliant services from various locations around the world. Attendees of this presentation will gain a clear understanding of the interoperability benefits of OpenGIS, and an appreciation for how it can be used in real-world applications.

Bio

Doug Cates is the principal of Moxi Media Inc., a one-person GIS consulting and software development company. He has 15 years experience in the development of spatial applications, and is the developer of the Internet Mapping Framework, which is in use by over 60 enterprise level organizations worldwide.

Community Mapping Network
Rob Knight, Ecosystems Biologist, Ministry of Water, Land and Air Protection

Abstract

The Community Mapping Network (CMN) provides free public access to community and local government data integrated with natural resource data from senior governments, using a combination of hosted data sets and links to distributed data servers. These data are supplemented with online data entry / geo-referencing tools and quality control procedures. CMN considers these data as a common resource of society, a part of the "Commons", whose true value is realized when we apply them to informed land use planning.

Bio

Rob has worked in fisheries management in the Lower Mainland Region of WLAP (ex MELPP) (ex Fish& Wildlife Branch) since 1978. Currently serving the Environmental Stewardship (Fisheries, Wildlife, Ecosystems, Parks) staff in the region to better use GIS/GPS, information systems, & the web to do WLAP business. 1996 to 2001 he worked as a Stewardship Advisor with stewardship groups and local governments as part of the Urban Salmon Habitat Program.

Data Sharing - Keeping the Shared Data Up-To-Date
Mark Stoakes, Safe Software Inc.

Abstract

Shared spatial data warehouses are becoming more common as government agencies, municipalities, utilities, telcos and other spatial data users start to share their data. This is driven by the need to maintain more accurate and up-to-date spatial databases, and at the same time reduce data acquisition and maintenance costs. Keeping the data up-to-date when many disparate data owners are responsible for data maintenance is a complex task and needs close cooperation from all members of the data sharing consortium.

Bio

Mark Stoakes has been a senior consultant with Safe Software Inc. since Feb. 1999 and is currently the Team Lead of the Professional Services group at Safe Software. Mark has had a wide range of data translation and data restructuring experience. Mark has worked on many data sharing initiatives including NIMA, ICIS, LRDW, BC Ministry of Forests, BellSouth and Arkansas Geographic Information Office.

ICIS – a Province wide data sharing initiative: Challenges & Rewards
Terry Naylor, ICI Society

Abstract

Accurate mapping that can be used by local government, utility companies and provincial ministries is a dream that can come true. As mapping and GIS have developed over the past decades, each group has compiled their mapping based on their individual business needs. The result is a duplication of effort and maps that just don't match. ICIS is a non-profit society whose members are trying to build, maintain and update mapping in a seamless province-wide database.

Bio

Terry Naylor is a British Columbia Land Surveyor who has been involved in base mapping since 1983. He helped develop the base map and infrastructure mapping in the City of Surrey. He has a keen interest in data sharing and currently works part time for ICIS, working with local governments and the ICIS management team to move the project forward.