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Pierre Lemire, CTO, Infrastructure Solutions Division AutoDesk, Inc.

GIS Organizational Structures

Abstract

Organizational structure is an important element contributing to the success or failure of a GIS implementation. People, workflow and technology are major factors contributing to organizational structure. Conversely, the way an organization is structured also influences the way people interact and work within that organization and determines the effectiveness of workflow and technology in addressing the organization's business drivers. This presentation discusses the importance of organizational structure for a successful GIS implementation and reviews the role of people, workflow and technology in contributing to this success.

Bio

Pierre Lemire is the Chief Technology Officer for Autodesk's Infrastructure Solutions Division (ISD). In this role, he is responsible for setting the technical direction for Autodesk's ISD products. Lemire joined ISD (formerly GIS Division) in 1996 and was the first member of the GIS software development team. During his tenure, he has managed the development of AutoCAD Map and Autodesk MapGuide. He was also was part of the core team working to move Autodesk into Location Based Services, managing the development of all the core platforms for the group.

Prior to ISD, Lemire was the Product Designer for ADE 2.0 and AutoCAD Map 1.0 at Autodesk. Before joining the company, Lemire was developing Geo/SQL, the first AutoCAD-based GIS product, at Kanotech. A veteran of GIS, Lemire first entered the field in 1986 as a research student using AutoCAD 2.18 to design a Residential Planning application. Lemire holds a Bachelor of Science degree with Honors in Computer Science from the University of Regina, Saskatchewan.

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Stewart Nimmo, Orbis Directions

Spatial Database Modelling - Different Options

Abstract

As GIS technology continues to advance the number of technology options continues to increase in all aspect of an implemented application, from the data structure through to how the end user accesses it. Core to the application's capabilities and what can be achieved by the end user, the data structure implemented will define the bases of the functional capabilities from; providing spatial inventories for map products and basic analysis; to integrating with other business systems for stream lining data flows; to modelling the behaviour of business activities for optimization or reporting of actuals. The following presentation will provide an overview of some different approaches towards structuring GIS data, ranging from basic flat files to inheritance and relationships of a class structure.

Bio

Stewart Nimmo has been providing GIS/AM/FM analysis and project management services through his consulting practice of Orbis Directions Consulting Ltd for the past 2.5 years. His 18 years of experience in the design and implementation of GIS/AM/FM systems has involved a number of industry sectors including resources, government (federal, provincial and municipal) and utilities (telecom, gas and hydro). The primary roles performed for these organizations have been as a business analyst, software developer or project manager, all with a focus on applying GIS/AM/FM technology. Through out his career Stewart has been involved with many aspect of spatial data modeling including the past 4.5 years of implementing class based structures while consulting for utility companies and local governments.

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Andrew Walther, P.Eng. President, APW Engineering Inc

Business Process Re-Engineering, Getting the Most Out of Change

Abstract

Technology fundamentally affects the way we work. Over the last 20 years, new technologies have found their way into most, if not all, of our GIS and Land Development business processes. Not uncommon in the industry across North America, this rapid and successive influx of technology has resulted in the haphazard evolution of our GIS and Land Development business processes. These have become complicated streams of tasks and hand-offs, and have often times not been considered enterprise-wide. This has resulted not only in inefficiencies to the current system, but also the loss of opportunity in gaining the benefits associated with optimized technology integration. This session outlines the requirements for optimized GIS and Land Development business process, and demonstrates a sound methodology for successfully addressing the procedural impacts technology has on your organization.

Bio

Andrew Walther, a licensed Professional Engineer in British Columbia, specializes in the integration and implementation of Land Development and GIS technologies to both public and private sector organizations. Andrew's focus involves getting back to the basics – business processes, data management and standards. With a professional background in surveying and municipal/transportation engineering, Andrew brings a unique blend of industry expertise and technology knowledge to clients. During Andrew's 8 years as an Autodesk Certified Consultant, he has worked with the City of Vancouver, City of Nanaimo and the US Federal Government, to name a few, to successfully implement business processes that allow for optimized technology utilization. In addition to GIS planning and integration, Andrew also trains extensively on Autodesk Land Development software, Total Station / GPS survey data collection/reduction procedures, engineering design processes and develops organization CAD Standards. Go to www.apwengineering.com for more information on Andrew's services.

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Karen Stewart, Spatial Information Manager, and
Peter Mueller, Survey Manager, City of Surrey.

The Digital Plan Submission Process

Abstract

To facilitate building and maintaining the City's Cadastral Database in an efficient and effective manner, the City of Surrey implemented a new process in March 2002, which requires all Legal Survey Plans to be submitted digitally. All plans must be created in accordance with our *Digital Plan Submission Standards.* If a legal survey plan fails the compliance evaluation the file is returned to the surveyor for compliance to standards or a fee is charged and the City of Surrey creates the plan to the appropriate standards. Working together with Land Surveyors the Engineering Survey and Spatial Information Sections have created a streamlined approach to this entire process that has enabled us to increase the turn-a-round time for update of our spatial database by 30%.

Bio

Karen Stewart has a Bachelor of Technology Degree in Geomatics, specializing in GIS from the British Columbia Institute of Technology (BCIT). She has over 22 years experience in the Municipal/Utility Mapping and GIS fields. Currently, Karen is the Spatial Information Manager for the City of Surrey. Recently, she co-wrote a paper entitled “Using CAD Tools For GIS: Maintaining a Municipal Infrastructure Dataset” which will appear in the upcoming URISA compendium. Karen is VP of URISA BC; is an executive member of GITA and is on the BCIT GIS BTech degree program advisory committee.

Peter Mueller has a Diploma of Technology in Surveying Technology from BCIT. He was commissioned as a British Columbia Land Surveyor in 1981 and as a Canada Lands Surveyor in 1996. Peter has over 29 years experience in the field of land surveying and has held the title of Survey Manager for the City of Surrey since 1993. Peter is a member of the BCIT Advisory committee for Survey Technology and the BTech Geomatics Advisory committee. Peter wrote a paper on the construction and maintenance of the Surrey EDM calibration/GPS validation basenet, which was published in 'The Link' magazine of the Corporation of Land Surveyors of the Province of British Columbia.

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David Firman, Usability Specialist, Pacific Alliance Technologies

Usability and GIS: Optimizing Map Work in Municipalities

Abstract

Policy analysts have long recognized that the management of space is the primary activity of municipal governments. It is therefore not surprising that municipal workers are eager to incorporate GIS based mapping interfaces as an integral part of their regular workflows and work processes. Web mapping makes this a very realizable possibility, and for many municipalities, an immediate reality. What happens when a GIS based mapping environment meets non-engineering working environments? What kinds of design decisions must be considered to optimize the implementation of municipality-wide web-mapping applications? This presentation will use evidence from case studies such as the Usability Study done for the City of Vancouver as a basis for looking at how Usability can help with the design of a municipal web-map system. Practical techniques for recognizing and exploiting existing sources of usability data will also be explored.

Bio

For the last several years David has been combining studies, research, and teaching in applied critical design theory with professional usability consulting. His clients include Telus and CPS (City Public Services of San Antonio) and he recently completed a major Usability Study of VanMap for the City of Vancouver. His primary interest, academically and professionally, is in developing design standards and techniques for extending the use of GIS systems to the many categories of municipal workers who are keen to take advantage of a sophisticated digital mapping environment.