Location Intelligence Conference 2009

OCTOBER 5-7

11:30 A.M. -12:30 P.M.	BALLROOM I & II

Break out Session: Enterprise LI/GIS

Moderator: **Joel Campbell,** GeoEye
Speakers: **Garth Tissington,** Atheeb Intergraph Corporation
Geospatial Harmony: A Practical Approach to Success in a Multi-vendor GIS Environment - Finding the Right Balance Between Commercial and Open Source GIS Software

Michael Connor, SpatialKey
Next Generation Web and Cloud Technologies Make LI a Personal and Organizational Productivity Tool

Salvatore Amaduzzi, University of Udine
GIS for Garbage Collection Optimization for the Municipality of Tirana (Albania)

11:30 A.M. -12:30 P.M.	LAKE PAVILLION

Break out Session: For the CTO: Visualization/APIs

Moderator: **David Sonnen,** IDC/ISSI
Speakers: **Mike Frizzell,** Cogent Company
How Quickly Can You Spin Up Your People? A Look at Mapping Platforms and Their APIs

Ying Wong, JMW Engineering, Inc.
Which Is the Best for Data Visualization on the Internet: Comparing the Performance of Google Earth, Google Maps, Bing, ArcGIS Explorer and World Wind, Using StackSymbol

Scott Hotes, WaveMarket
Location-enabling Your Service: A One-stop-shopping Solution

12:35 - 2:00 P.M.	BALLROOM I & II

Luncheon : Keynote Maarten Oldenhof, AND Mapping

2:00 - 2:30 P.M.	LAKE PAVILLION

Wrap up session @ Lunch

Tele Atlas Find more.

Distinguished Speakers and Presentations

MONDAY, 1:15 - 2:00 P.M.	BALLROOM I & II

Steve Coast, Founder, OpenStreetMap & Cloudmade

Steve Coast was named one of the most influential people in geospatial technology by readers of Directions Magazine in 2009. He is the founder of OpenStreetMap (OSM), a collaborative map of the world made by people like you. Steve has worked in many heavy lifting computing applications before co-founding a web consultancy firm with Nick Black in 2006. In 2008 this became CloudMade after investment by Sunstone Capital. Steve lives on planes and in airports and is most easily contacted in person by attending Location Intelligence 2009. Prior to creating OSM and Cloud Made, Coast interned at Wolfram Research then pursued a degree in computer science and physics at the University College London.

The Case for OpenStreetMap

Why does the world need an open map? What happens when you treat geodata collection - surveying - as a service in the cloud? This talk explores that issues and explains the fantastic results you can achieve by giving up a little bit of control in return for amazing geodata. We'll walk through a story about how OpenStreetMap got started, where it is and where it's going with an eye to practical uses.

MONDAY, 4:45 - 5:30 P.M.	BALLROOM I & II

John Bennett, Vice President, Hunt Energy IQ

John P. Bennett is Vice President of Hunt Energy IQ (HEIQ). In this capacity, he leads Hunt Energy I.Q. to be a market leading Enterprise Energy Management solution for sustainability, energy efficiency, green building, and business intelligence. Mr. Bennett joined Hunt Energy Enterprises as a consultant in 2008 and led Hunt's restructuring and development of its Metersmart energy management business. Before coming to Hunt, Mr. Bennett was business development director at Oracle Corporation and was Founder and Vice President of TransDecisions, Inc. from 2000 to 2006, a leader in advanced routing scheduling and logistics solutions.

Mr. Bennett has a diverse technology background spanning computer Aided Design (CAD), Geographic Information Systems (GIS), Logistics, Security Identity Management, Call Center, Voice Response and Energy Management. He also has 20 years of Enterprise Software and Solution expertise ranging from leading software startup to executing some of the largest Enterprise software companies. Bennett earned a B.A. in geography from the University of Texas at Austin.

Hunt Energy IQ's GEMS Software: Energy Business Intelligence

So what is energy business intelligence? Well, it is a Web portal with data warehouses, online analytical processing, and service oriented architecture (SOA) Web services.

in 2009. Dave has managed geographic information systems projects since 1987. His work included implementation of GIS in both the United States and international locations. Dave managed the Denver Smart Places project and created enterprise GIS systems for the JFK and Los Angeles World Airports. Dave directed regional geographic information services for ESRI and, in 2006, implemented the land holdings management GIS for Petrotrin in Trinidad-Tobago. In 2009, Dave assisted development of international work environment strategies for Sun Microsystems.

Dave is the GIS program coordinator for Front Range Community College and Red Rocks Community College, providing GIS certificate programs at both schools. He is a GISCI certified Geographic Information Systems Professional.

Dave is a military veteran with Bachelor of Science degree in Electrical Engineering from the University of Colorado and Master of Management Science degree from Regis University in Denver.

SPEAKER PRESENTATIONS ⌄

Jans Aasman, Ph.D.CEO, Franz Inc.
Using Semantic Web Technologies for Location Intelligence: Why the GIS Community Needs RDF (aka Web 3.0)
Tuesday during the 3:00 p.m. session, Ballroom I & II

A new pillar of the Web is RDF, a W3C supported technology to represent structured and unstructured metadata and to link very diverse datasets into a linked web of data. In some areas we are beginning to see the geospatial community incorporate semantic web technology to model geospatial objects and annotate objects with metadata. (The USGS National Map project being a great example.) One reason the geospatial community needs to embrace RDF is the capability to reason over ontologies and annotations for geospatial classes and instances. As a participant in this emerging technology field, we see an increased interest from telecom providers, the transportation industry and defense integrators in tracking and reasoning over hundreds of thousands to millions of objects in real time. Consider fleets of trucks, swarms of airplanes, track data for soldiers on the (urban) battlefield, track data for endangered animals, or location-based services like Loopt.

In this presentation I demonstrate RDF database technology combined with geospatial and temporal capabilities. I will show in a single query how to "Find another truck that can pick up package X at location Y so that I can pick up package A at location B so that we both will arrive at P before time T." I will discuss design choices, performance considerations and some additional query capabilities.

We are beginning to see adoption of semantic technologies in large enterprises; Cisco, Adobe, DOD, NASA, and others. The consistent theme in these cases involves managing metadata and extracting actionable knowledge from this information. There is increased funding and well as new projects starting which leads us to conclude the results are encouraging.

Sherif Ahmed and Arthur Berrill,
Pitney Bowes Business Insight
Delivering powerful capabilities and compelling user experiences in Predictive Analytics Solutions
Monday during the 3:45 p.m. session, Ballroom I and II

Abstract: Typically high end analytical solutions are reserved for dedicated analysts who crunch the numbers and information and deliver critical information to businesses and decision makers. So how do we deliver the same value & power to small and medium business that don't have analysts & developers in their payroll? Pitney Bowes Advanced Concepts and Technologies will share concepts and prototypes that they have built, that illustrate the value of delivering high end analytics & location intelligence using simple and satisfying user experiences using the latest in Web technologies.

Dr. Salvatore Amaduzzi, Professor, University of Udine, Italy
GIS for Garbage Collection Optimization for the Municipality of Tirana (Albania)
Wednesday during the 11:30 a.m. session, Ballroom I and II

The Municipality of Tirana's need was to address the city's garbage problem, which had never been addressed and which was creating serious problems in the Sharra Landfill, a United Nations Environment Program (UNEP) post-conflict "hot-spot." The Ministry of Cooperation issued an RFP, which was won by a group of Italian companies. In addition to the landfill problem, the town had never a garbage collection program. The steps to be addressed were: 1) best site location of the bins; 2) route optimization of the bin collection routes; and 3) certification and control of the activity done by the vehicles. The garbage collection is done by four private companies trying to do the minimum and get paid anyway. The group immediately realized that GIS was the right technology to base these three activities on. They asked the University of Udine, with wide experience in the use of GIS in the ecology sector, to take care of this part of the project. Meetings were held to analyze needs with the heads of the different Tirana Municipality departments (personnel, ecology, infrastructure, taxes, etc.). They are all very young and motivated people ready to absorb the new technologies.

The project is now under way using the three different prototype GIS tools. SITEfinder: a GIS that uses genetic algorithms defines the best position of the bins taking into consideration the parameters the municipality wants to handle (number of inhabitants around the bin, number of commercial activities, ...). PATHfinder: a GIS that uses genetic algorithms given, for each bin, the constraints (number of times it has to be emptied during the day, the time windows, etc.). SATfinder: a GIS that uses black boxes, with GPS and mobile modem, installed on the vehicles to give real-time position of the vehicles, the routes done and the bins emptied. In this way the municipality can verify if the planned activities have been performed correctly or if some streets/bins have been forgotten. All the tools have been developed as WebGIS by using .NET, SQLserver and Virtual Earth.

I am going to describe the technical approach and show to the audience the real applications online in order to allow them a clear realization of the easy access for the users to such a complex problem.

Ziv Baum, CEO, Zipano Technologies
Reconciling Location Tracking and Privacy, and the Benefits of Location Sharing, in the Enterprise
Wednesday during the 10:30 a.m. session, Cotton Creek

Enterprises are increasingly turning to location tracking functionality to empower their workforce and increase productivity. Yet, indiscriminate location sharing can lead to employee distrust of new applications and to evasive behaviors (e.g. employees turning off cell phones and other location tracking devices). This presentation will review lessons

learned from large-scale deployments of a location sharing platform that empowers companies and their employees to define rich privacy preferences such as "Only share my location with colleagues in my department during work hours and while I am on company premises." The presentation will include a discussion of how new interface technologies can reduce user burden and empower companies to leverage the benefits of location sharing technology while allowing employees to retain control over access to their location.

Dr. Thierry Badard, Professor,
GeoSOA research group / Laval University
Demonstrating the Benefits of Open Source Geospatial Business Intelligence
Tuesday during the 4:30 p.m. session, Cotton Creek

Business Intelligence applications are efficient and profitable tools to better understand historical, current and future aspects of business operations. As it is commonly recognized that "about 80% of all data stored in corporate databases has a spatial component," this can be used to enhance the BI user experience with map displays and spatial analysis tools. Some phenomena or trends in the data can moreover be observed and adequately interpreted only if they are represented on a map (e.g. spatial distribution or spatiotemporal evolution of a given phenomenon). Geospatial BI, combining GIS and Business Intelligence (BI) technologies, has thus recently stirred marked interest for the huge potential of combining spatial analysis and map visualization with proven BI tools and techniques such as data warehousing, Online Analytical Processing (OLAP), reporting tools, dashboards and data mining.

Tools recently made available on the market rely on a loose coupling between existing GIS software and some proven BI components (e.g. ESRI with SAP and MapInfo with IBM/ Cognos or Microsoft with Analysis Services and Virtual Earth). However, there are many challenges with these couplings, which will be discussed during this presentation.

Dimensional data structures are more efficient to reply fast to complex analytical queries which would have involved numerous time consuming join queries in a transactional system. These dedicated data structures make then possible to reply to complex analytical queries within a 5-10 seconds limit, which do not hinder the train of thoughts of a decision maker while he/she is exploring/analyzing the data in an analytical dashboard or in an on-the-fly generated report. Together with the emergence of the geospatial BI interest, the IT sphere has seen the rise of the open source community. This follows significant strategic moves by some key players as IBM, Microsoft, Oracle and others to incorporate open source software into their long-term portfolios. Such a successful trend for the open source community is due to the numerous and important advantages the open source software provide.

The GeoSOA Research Group (http://geosoa.scg.ulaval.ca) at Laval University, Quebec, Canada started to consistently and completely integrate the geospatial functionality into an existing, mature, efficient and reputed open source BI software stack. It results in the release of GeoKettle (http://www.geokettle.org), a spatial ETL tool based on Pentaho Data Integration (Kettle, http://kettle.pentaho. org) and targeted for geo-analytical data warehousing and GeoMondrian (http://www.geo-mondrian.org), a "spatially-enabled" version of the Mondrian OLAP server (also named

Pentaho Analysis Services, http://mondrian.pentaho.org). GeoMondrian is an implementation of a Spatial OLAP (SOLAP) server. As far as we know, it is the first implementation of such a server and it is open source.

Chris Becwar, DigitalGlobe and Abhinav Agarwal, Oracle
Business Intelligence &
Enterprise Performance Management
Turning Spatial Data Into Actionable Intelligence:
Use Cases for Combining High Resolution Imagery and
Business Intelligence Tools
Wednesday during the 10:30 a.m. session, Ballroom I & II

When it comes to business decision making, geospatial data is only as useful as what you can do with it. Many organizations spend large amounts of time and money acquiring location information, but aren't able to fully leverage the power of that data because of the difficulty associated with managing it, making it easily available, and putting it into proper perspective. Two key trends are helping businesses around the globe overcome these challenges and turn geospatial information into intelligence. First, the easy availability of current, international high resolution earth imagery is adding real-world detail and context to existing vector and point data. Second, more powerful, user friendly software technologies are helping more non-technical business users make location related business decisions.

One way of enabling non-technical business users is by automating the task of creating interactive maps with analytics data overlain on top, so that the business user can focus on