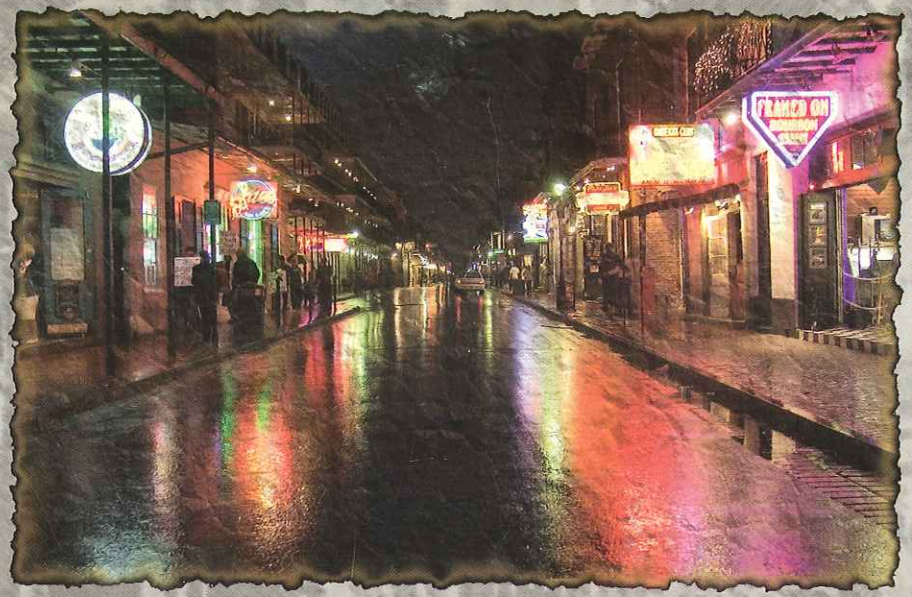
"ReNew Orleans"



17th Annual Conference

SCAUG 2007

# NEW ORLEANS

WDS
western data systems

Geo Series

Pro Series

Recon GPS

Ranger

| Houston | DFW | San Antonio | Austin | Oklahoma |
|---|---|---|---|---|
| 888-700-5212 | 877-902-8112 | 877-300-9659 | 866-565-4937 | 866-565-4937 |



**SCAUG OFFICERS**
2006-2007

**President**
Dan Allee, GISP
City of Tyler

**Vice President**
Tessa M. Allberg, GISP
City of McKinney

**Conference Coordinator**
J Scott Sires
Brookhaven College

**Conf. Coordinator Elect**
Lydia Sauceda
CPS Energy

**Membership Coordinator**
Shellie Willoughby
Oklahoma Conservation Commission

**Secretary**
Cindy Tuttle, GISP
San Antonio Water System

**Publications Coordinator**
Heather Nick
City of Tyler

**North Texas Representative**
Justin Cure, GISP
City of Longview

**Oklahoma Representative**
Charles E Brady III, GISP
City of Ardmore

**Louisiana Representative**
Xingwen Chen
NTB Associates, Inc.

**Mississippi Representative**
Neal Smith
MARIS

**South Texas Representative**
Eric C Stauber
PBS&J

**Treasurer**
Garri Grossi
City of Plano

**Assist. Conf. Coordinator**
Brenda Kay Fennel
Previstar

**Assist. Pub. Coordinator**
Lee Vance
City of Tyler

**ESRI Representative**
Sheila Sullivan
ESRI

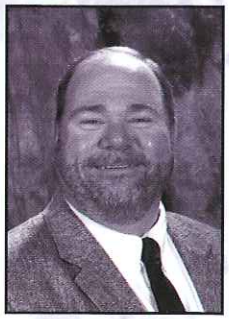
**Past President**
Joe Chapa
City of San Antonio


# Table of Contents


Welcome from the President ..... 2
This Year's Vendors ..... 3
Hotel Layout ..... 4
Training at a Glance ..... 6
Conference at a Glance ..... 6
Keynote Speakers ..... 8
Keynote Abstract ..... 9
User Presentations ..... 10
ESRI Tech Sessions ..... 11
Presentation Abstracts ..... 12
Vendor Ads ..... 24
Next Year's Conference ..... 32

SCAUG
South Central Arc User Group

# Welcome from the President



Hello and thanks for attending this year's South Central Arc Users Group conference. This year we chose New Orleans for several different reasons but two main purposes were essential to SCAUG's decision. We wanted to help out the devastated area and contribute to its economic recovery while at the same time build our SCAUG membership base in Louisiana. We are very pleased that you chose to participate and lend your support by attending.

Our technology continues to evolve. The many new enhancements to 9.2 and the exciting possibilities that are now here with ArcGIS Server give us an overabundant amount of things to learn about. New Orleans just sounds like fun doesn't it? And we sure do hope you have a good time but our goal is that this conference will enlighten you to many new tools, processes, procedures, and such from the many training, user presentations, and networking possibilities that exist.

On behalf of SCAUG, I welcome you to New Orleans for the 17th annual South Central Arc Users Group conference – New Orleans style!

Daniel B. Allee

# Special Thanks

SCAUG would like to thank the following companies and entities for allowing this year's board members to perform their officer duties. Their support for SCAUG is always appreciated.

**BROOKHAVEN COLLEGE**
**CITY OF ARDMORE**
**CITY OF LONGVIEW**
**CITY OF MCKINNEY**
**CITY OF PLANO**
**CITY OF SAN ANTONIO**
**CITY OF TYLER**
**CPS ENERGY**
**MARIS**
**NTB ASSOCIATES, INC.**
**OKLAHOMA CONSERVATION COMMISSION**
**PBS&J**
**PREVISTAR**
**SAN ANTONIO WATER SYSTEM**

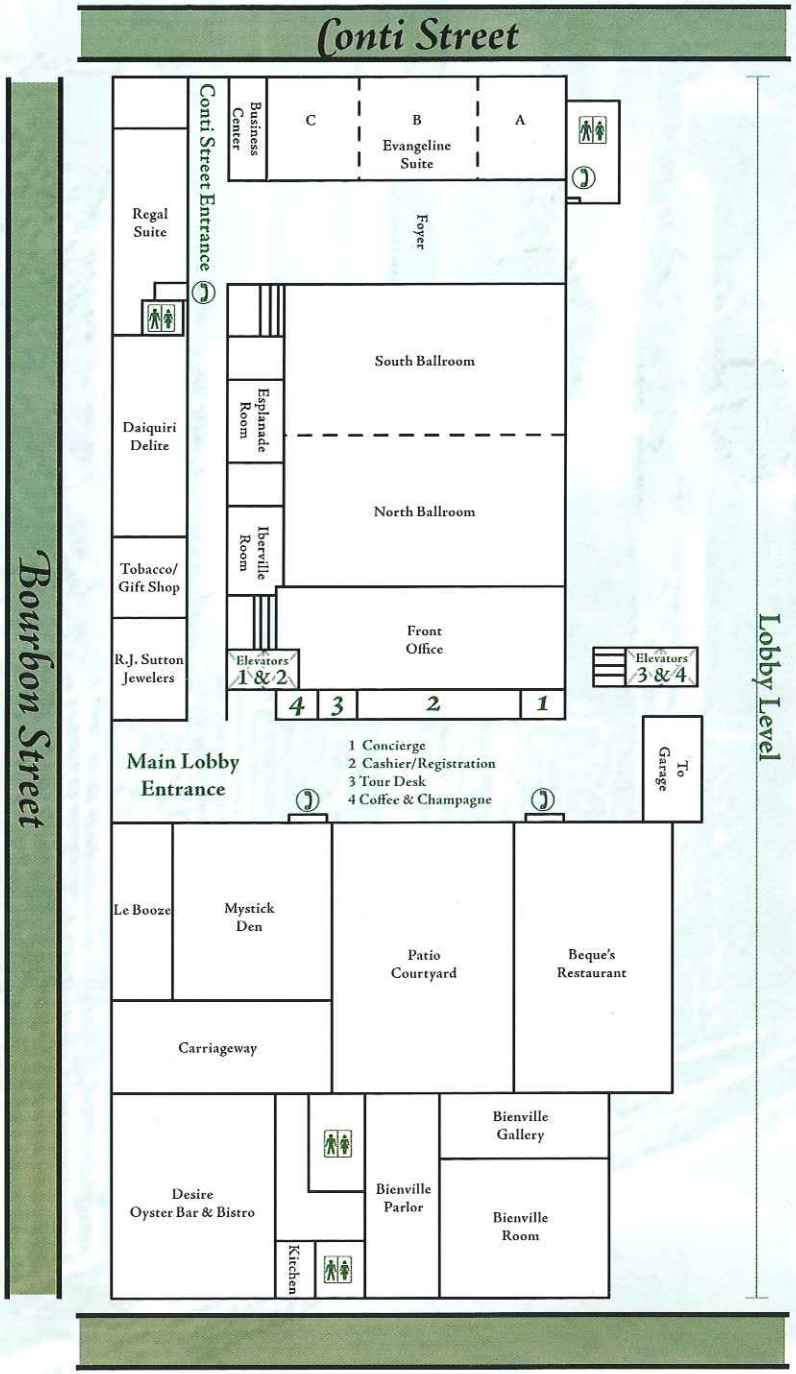


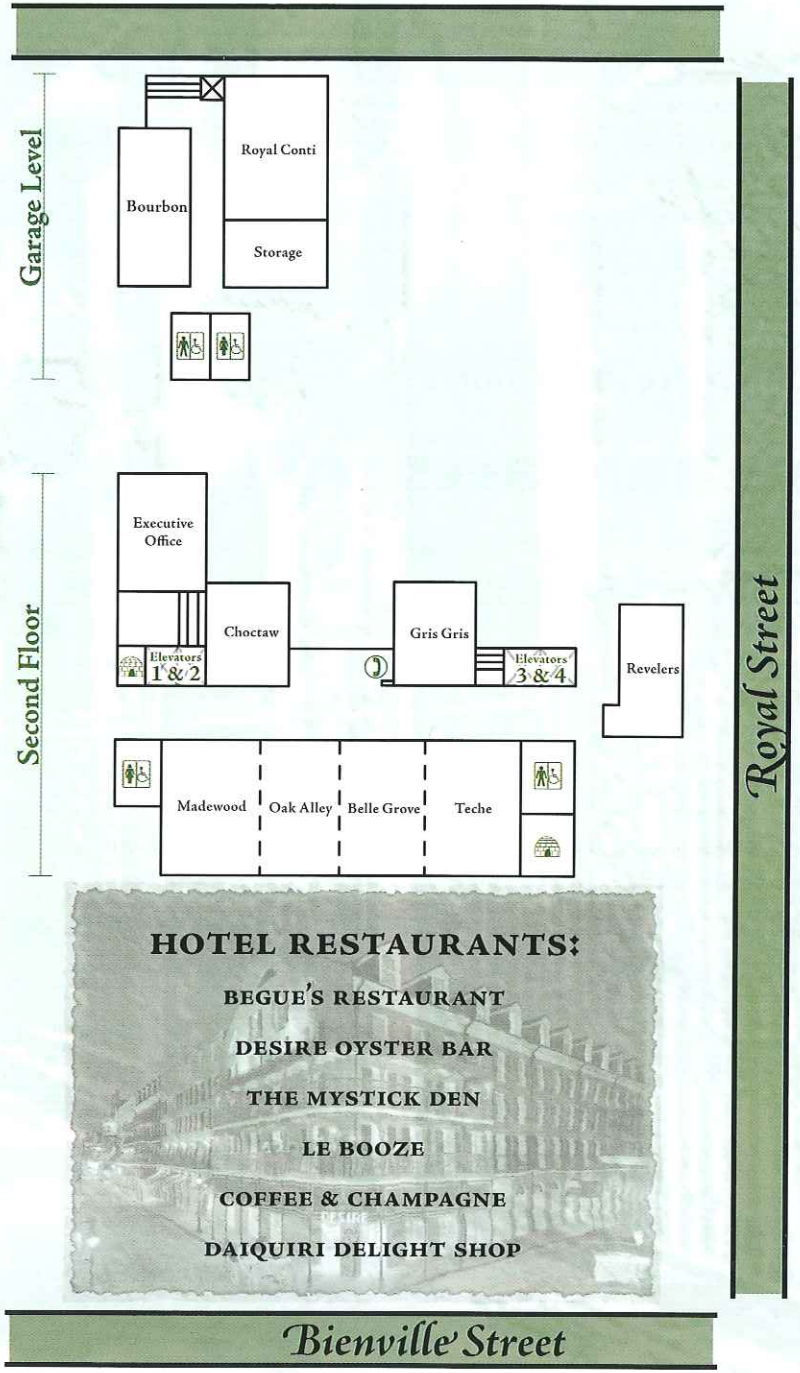


# This Year's Vendors

ESRI
CarteGraph Better Government
CDM consulting · engineering · construction · operations
Carter Burgess
Cityworks AZTECA SYSTEMS, INC.
EI Technologies, LLC
gsi geodynamic solutions inc.
geocortex INTERNET MAPPING Latitude Geographics Group Ltd.
LOPEZ GARCIA GROUP
MultiVisionUSA
NAVTEQ
NAVIGATION ELECTRONICS, INC. NEI
NTB Associates, Inc. ENGINEERS · SURVEYORS · GIS Shreveport · Baton Rouge · Dallas · Fort Worth · Little Rock
ORION EMPOWERING SPATIAL DATA
P2 ENERGY SOLUTIONS
PBS&J
PINNACLE MAPPING TECHNOLOGIES, INC.
RouteSmart TECHNOLOGIES
TEACHMEGIS.COM GIS TRAINING CENTER
WDS western data systems

# Hotel Layout




## HOTEL RESTAURANTS:

BEGUE'S RESTAURANT

DESIRE OYSTER BAR

THE MYSTICK DEN

LE BOOZE

COFFEE & CHAMPAGNE

DAIQUIRI DELIGHT SHOP

# Training at a Glance

### MONDAY & TUESDAY

| Class | Instructor | Time | Room |
|---|---|---|---|
| Building Geodatabases II (2 Days) | Stacia Canaday | 9:00 - 6:00 | Belle Grove |
| Introduction to ArcGIS Server (2 Days) | Rob Burke | 9:00 - 6:00 | Oak Alley |
| Introduction to ArcGIS I (2 Days) | Justin Cure | 9:00 - 6:00 | Teche |
| Intermediate Editing in ArcMap (1 Day) | Jennifer Harrison | 9:00 - 6:00 | Revelers |
| Introduction to Spatial Analyst (1 Day) | Jennifer Harrison | 9:00 - 6:00 | Revelers |

Breaks courtesy of WDS.

# Conference at a Glance

### WEDNESDAY

| Event | Time | Room |
|---|---|---|
| Registration | 7:00 - 6:00 | Vendor Foyer |
| Keynote Breakfast | 9:00 - 11:00 | Grand Ballroom (North/South) |
| Vendor Exibits | 11:00 - 8:00 | Evangeline |
| Vendor Bingo | 11:00 - 1:00 | Evangeline |
| Keynote Book Signing | 11:00 - 1:00 | Evangeline |
| Lunch | 1:00 - 2:00 | On Your Own |
| User Presentations Track 1 | 2:00 - 5:00 | Madewood/Oak Alley |
| User Presentations Track 2 | 2:00 - 5:00 | Teche/Belle Grove |
| User Presentations Track 3 | 2:00 - 5:00 | Regal |
| Vendor's Social | 6:00 - 8:00 | Vendor Foyer |
| Contests/Exhibits/Voting | 6:00 - 8:00 | Vendor Foyer |
| Information Booth | 6:00 - 9:00 | Esplanade |

Breaks courtesy of NTB, GSI and CDM

Brunch courtesy of Navteq

Vendor Reception courtesy of WDS, Pinnacle and Carter Burgess

### THURSDAY

| Event | Time | Room |
|---|---|---|
| Registration | 7:00 - 1:00 | Esplanade |
| Panel Discussions | 9:00 - 11:00 | Royal Conti |
| User Presentations Track 1 | 9:00 - 12:00 | Madewood/Oak Alley |
| User Presentations Track 2 | 9:00 - 12:00 | Teche/Belle Grove |
| User Presentations Track 3 | 9:00 - 12:00 | Regal |





# Conference at a Glance (Cont.)

### THURSDAY

| Event | Time | Room |
|---|---|---|
| Lunch | 12:00 - 2:00 | On Your Own |
| Information Booth | 1:00 - 7:00 | Esplanade |
| User Presentations Track 5 | 2:00 - 4:00 | Madewood/Oak Alley |
| User Presentations Track 6 | 2:00 - 4:00 | Teche/Belle Grove |
| User Presentations Track 7 | 2:00 - 4:00 | Regal |
| Vendor Exhibit | 11:00 - 6:00 | Evangeline |
| Street Parade | 6:00 - 7:00 | Bourbon Street |
| Masked Social | 7:00 - 8:00 | Grand Ballroom (North/South) |
| Karaoke | 8:00 - 9:00 | Grand Ballroom (North/South) |

Breaks courtesy of NTB, GSI and CDM

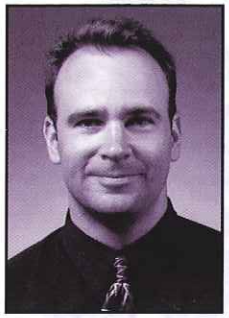
Masquerade Party courtesy of GSI and CDM

### FRIDAY

| Event | Time | Room |
|---|---|---|
| Information Booth | 7:00 - 4:00 | Esplanade |
| ESRI Tech Session 1 | 9:00 - 12:00 | Madewood/Oak Alley |
| ESRI Tech Session 2 | 9:00 - 12:00 | Teche/Belle Grove |
| ESRI Tech Session 3 | 9:00 - 12:00 | Regal |
| ESRI Tech Session 4 | 9:00 - 12:00 | Revelers |
| Closing Keynote | 1:00 - 1:30 | Grand Ballroom (North/South) |
| Lunch & Video Presentation | 1:30 - 2:30 | Grand Ballroom (North/South) |
| Awards & Giveaways | 2:30 - 3:00 | Grand Ballroom (North/South) |

CDM consulting · engineering · construction · operations
NTB Associates, Inc. ENGINEERS · SURVEYORS · GIS Shreveport · Baton Rouge · Dallas · Fort Worth · Little Rock
Carter Burgess
PINNACLE MAPPING TECHNOLOGIES, INC.
gsi geodynamic solutions inc.
TEACHMEGIS.COM GIS TRAINING CENTER
NAVTEQ
WDS western data systems

# Keynote Speakers



## Jason Wiese

Jason Wiese holds advanced degrees from Iowa State University and Louisiana State University. He is the Assistant Director of the Williams Research Center of The Historic New Orleans Collection, and previously served as Collections Manager at Tulane University's Latin American Library. His subject specialties include the cartohistory of Louisiana, maritime and military history of the Gulf South, especially the Battle of New Orleans, and early New Orleans jazz. Mr. Wiese has served as curator of several exhibitions, including "The Terrible & the Brave: the Battles for New Orleans, 1814-15" and "Tierras Realengas: Land Grants in Spanish Colonial Louisiana." He also served as lead editor for an historical atlas titled Charting Louisiana: Five Hundred Years of Maps (2003).

## John T. Magill

John T. Magill is a curator at The Historic New Orleans Collection where he is also head of research services at The Collection's Williams Research Center. He was brought up in California, but attended the University of New Orleans where he received a Master's Degree in history. His field of study has been the urban growth of New Orleans, and he has written and lectured extensively on the subject. His articles have appeared in publications such as New Orleans Magazine, Gambit, Preservation in Print and Louisiana Cultural Vistas. He has contributed to several books including Classic New Orleans, Marie Adrien Persac: Louisiana Artist, Charting Louisiana: 500 Years of Maps (2003) and most recently co-authored Canal Street: New Orleans' Great Wide Way. His exhibitions include The Long Weekend: Art and French Quarter Preservation Between the Wars, From Bank to Shore: the Growth of New Orleans, Pelican Eye's Views: New Orleans through Bird's Eye Views, A Mystical Bal Masque: 75 Years of the Mystic Club Ball, and City of Hope: New Orleans after Hurricane Katrina.





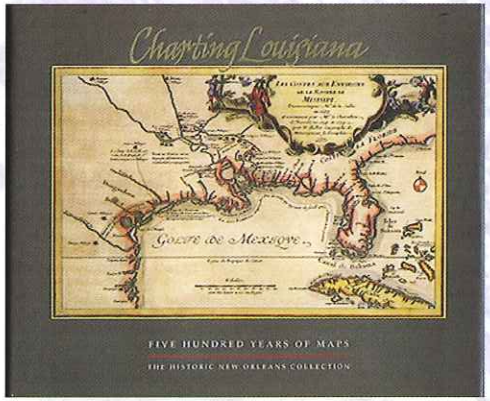
# Keynote Abstract

## Charting Louisiana: Five Hundred Years of Maps

In 1803, reliable geographic information about Louisiana was scant, prompting some officials—including President Jefferson—to believe that the province included the entire Gulf Coast from modern Texas to Pensacola. These misconceptions about the physical extent of Louisiana accrued in part from early maps of the French, and later Spanish, province. Mr. Wiese's illustrated talk will feature images of important pre-colonial, colonial, and American maps that demonstrate the evolving understanding of Louisiana's geography as it changed over time as a result of exploration, settlement, and political expediency. Additionally mapmaking techniques, as they affect the expression of cartographic data and the historical market for cartographic works, will be discussed.

New Orleans rests in the low-lying, ill-drained, flood-prone, delta of the Mississippi River. Water encroaches on most sides of the city. New Orleans is located at one of the most economically strategic locations in North America which prompted it to grow into one of the nation's largest richest cities in the first half of the 19th century. In spite of this, its growth has been dictated and hindered by its watery local, since floods from rain, the Mississippi River and the Gulf of Mexico have on more than a few occasions brought misery to its residents. Mr. Magill's lecture will focus on the city's history of urban expansion. This was initially along the relatively high lands close to the river and then through its misplaced confidence in its systems of pumps and levee/flood walls which prompted its expansion into drained, yet flood-prone swamplands during the 20th century. Also discussed will be some of the city's historic floods which served as rehearsals for its worst inundation from Hurricane Katrina in 2005.

---




*As part of The Collection's commitment to rebuilding New Orleans after Hurricane Katrina, all proceeds from atlas sales will be donated to the Vieux Carré Commission, an organization dedicated to preserving the distinctive character of the French Quarter.*

2003 • 408 pp. • Hardcover
ISBN 0-917860-47-0 • $95

***Winner of the Louisiana Endowment for the Humanities 2004 Humanities Book of the Year Award, the Louisiana Library Association's 2004 Louisiana Literary Award, and the Gulf South Historical Association's 2004 Best Book on the Gulf South Award.***

# User Presentations

## WEDNESDAY

| | | |
|---|---|---|
| **Madewood/Oak Alley** | | |
| 2:00 | Hidden Treasures of ArcGIS 9.x | David Allen |
| 3:00 | Applied GIS: Reducing Capital Improvement Costs | Kevin Gunn |
| 4:00 | Addressing Centerline in Batch Mode | Xingwen Chen |
| **Teche/Belle Grove** | | |
| 2:00 | GIS When Lives Are on the Line | Colen Wilson<br>Shannon Deckert |
| 3:00 | Successful Single Agency Planning of a Large Scale GIS Day | Shannon Deckert<br>Colen Wilson |
| 4:00 | What in the World is Geocaching? | Heather Nick |
| **Regal** | | |
| 2:00 | Enterprise Integration at the City of Longview | Nirav Shah, GISP |
| 3:00 | Implement Your GIS One Year Ahead of Schedule – A City of Longview Case Study | Nirav Shah, GISP<br>Justin Cure, GISP |
| 4:00 | Making GIS Available to the Masses – Implementing GIS for the Internet & Intranet | Michael Franschman |

## THURSDAY

| | | |
|---|---|---|
| **Madewood/Oak Alley** | | |
| 9:00 | Even the best laid GIS plans will not be a success: That takes people. | Suzanne Armstrong |
| 10:00 | The Role of the Columbia Regional Geospatial Service Center System | Johnny Brown |
| 11:00 | What in the World is Geocaching? | Heather Nick |
| 2:00 | LocateOk – Oklahoma's IMS Application for Site Selection and Economic Development | Sohail Hasanjee<br>Kiran Darapureddy |
| 3:00 | Spatial Analysis of Fort Worth's Recycling Program | Robert E Wachal |
| **Teche/Belle Grove** | | |
| 9:00 | Are Your Outfalls Out of Place? Are Your Inlets Letting You Down? Are Your Manholes Full of Holes? Get You Utility Data Ready To Do More Than Just Make Maps! | Teri Landrum |
| 10:00 | The Use Of A GIS-Based Algorithm To Prioritize Sanitary Sewer CCTV Invesitgations | Joseph Molis |
| 11:00 | Wastewater Master Planning with GIS | Santa G Rivas |
| 2:00 | Approaches to Floodplain Mapping | Barrett Goodwin<br>Robert Houston |
| 3:00 | Addressing Centerline in Batch Mode | Xingwen Chen |
| **Regal** | | |
| 9:00 | Mapping Criminal justice or Justice, thy name is GIS! | Tim Nolan, GISP |
| 10:00 | Integrating HTE with ArcSDE - A Case Study | David McCourt<br>Bill Scott |





## THURSDAY

| | | |
|---|---|---|
| 11:00 | Micro-Level GIS: Using GIS for intra-building analysis | Amy Rose |
| 2:00 | True Or Full: Block Ranges for Computer Aided Dispatch | Garri Grossi |
| 3:00 | True Or Full: Block Ranges for Computer Aided Dispatch | Garri Grossi |

# ESRI Technical Sessions

## FRIDAY

**Madewood/Oak Alley**

9:00 - 11:00 **Developing Applications with ArcGIS** — Bob Warford

*Can't make it to this session? Interested in learning more? These course offerings from ESRI will pick up where this session leaves off:*

- Developing Applications with ArcGIS Server Using Java
- Developing Applications with ArcGIS Server Using the Microsoft .NET Framework
- Extending ArcGIS Desktop Applications

**Teche/Belle Grove**

9:00 - 11:00 **ArcGIS Server** — Adam Pittman

*Can't make it to this session? Interested in learning more? This course offering from ESRI will pick up where this session leaves off:*

- Introduction to ArcGIS Server

**Regal**

9:00 - 11:00 **ArcGIS Desktop Tips & Tricks** — Ken Smith

*Can't make it to this session? Interested in learning more? These course offerings from ESRI will pick up where this session leaves off:*

- Advanced Analysis with ArcGIS
- Data Production & Editing Techniques
- Introduction to ArcGIS II

**Revelers**

9:00 - 11:00 **Geodatabase Design & Tuning for Multiuser Geodatabases** — Stacia Canaday

*Can't make it to this session? Interested in learning more? These course offerings from ESRI will pick up where this session leaves off:*

- Data Management in the Multiuser Geodatabase
- Managing Editing Workflows in the Multiuser Geodatabase

# Presentation Abstracts

## Hidden Treasures of ArcGIS 9.x

DAVID ALLEN

### Biography:

Mr. Allen has worked in the GIS field for over 23 years, 18 with the City of Euless, TX. He is also the Program Coordinator for GIS at Tarrant County College where he develops much of the curriculum and teaches.

### Abstract:

Buried deep in the ArcInfo manuals are some features that don't make it into the regular courses, but can be great time savers if used right. In this session, we'll open the treasure chest and explore some of the little known but highly useful features of ArcInfo and ArcView.

## Applied GIS: Reducing Capital Improvement Costs

KEVIN GUNN

### Biography:

Kevin Gunn is the Director of Information Technology for the city of Killeen, Texas. He is responsible for strategic planning and daily operation of all technology resources for the City, including Geographic Information Systems. Killeen started the GIS program in 2002.

### Abstract:

The City of Killeen, Texas is rapidly growing. The demand for critical infrastructure: streets, water/waste water, and drainage is outpacing the funding available for these projects. Leaders in the Public Works Department surmised that a significant portion of engineering and design fees were attributed to contingency. Under current construction practices, design consultants have to plan and budget for the unknown. Public Works staff theorized that by minimizing or even eliminating the unknowns for the design consultants the City could realize significant savings. Geographic Information Systems (GIS) proved to be the means to accomplish the task. This paper discusses the planning, criteria, processes, and methodology used by the City of Killeen for one street capital improvement project. This project realized more than ten percent savings of approximately $82,000 on design consultant fees for preliminary engineering alone.

## Successful Single Agency Planning of a Large Scale GIS Day

SHANNON DECKERT
COLEN WILSON

### Biography:

Shannon Deckert is a 2000 cum laude graduate of Texas State University with a BS in Geography. As a native San Antonian Shannon began her career as a 9th grade Geography teacher before transitioning into GIS. Shannon has worked in various GIS arenas for the last four years. Since the Fall of 2005, Shannon has worked as a GIS Analyst with the City of Killeen. She supports all departments with their GIS analysis needs as well as special project development.

### Abstract:

The City of Killeen's Department of Information Technology planned and hosted the Central Texas area's first GIS Day on November 15, 2006. The City's goal was to celebrate the technology and capability of GIS as well as expose applied geography to nearly one thousand sixth graders from the Killeen Independent School District. During the initial planning of GIS Day, a much smaller version of the event was considered; this quickly grew as the City realized the impact a large scale 'expo' would have on the area's students. The decision was made to increase the variety of projects and activities by inviting regional GIS users and companies to the event in an effort to showcase industry specific applications. This paper discusses the phases of planning, strategies for obtaining corporate sponsors and volunteers, keeping students engaged, and motivating teachers to incorporate GIS in the classroom, all on a limited budget.

## The Role of the Columbia Regional Geospatial Service Center System

JOHNNY BROWN

### Biography:

I have been in the GIS field since 1999, working primarily with Gregg Appraisal District. I had a brief stint with the City of Shreveport before coming to the Columbia Center in November 2006. I hold a BS in history and geography, a Master's in history, and a Master of Interdisciplinary Studies with an emphasis in GIS.

### Abstract:

The purpose of this presentation is to highlight the various activities currently ongoing at the Columbia Center in Nacogdoches and its role as part of the Columbia Regional Geospatial Service Center System (CRGSCS).

Under mandate from Congress, the Columbia Center concentrates GIS activities into the areas of emergency planning and response, regional economic development, and natural resources management. The Columbia Center "levels the playing field" for rural east Texas landowners and communities which are traditionally underserved in GIS and technology.

The CRGSCS is a bottom-up system of regional centers. Each center concentrates on its own unique regional issues while maintaining shared functionality and interoperability with the system.

## GIS When Lives Are on the Line

COLEN WILSON
SHANNON DECKERT

# Presentation Abstracts (Cont.)

**Biography:**

Colen Wilson has worked for 23 continuous years within the civil mapping arena. The first 7 years were with Civil Engineering Consultant firms in Austin, TX. The following 16 years have been with the City of Killeen. He is currently occupying the position of GIS Project Manager, which he has held for the last 5 years. He holds an A.A.S. in Drafting and Design from Central Texas College and is currently enrolled seeking a B.B.A. from Tarleton State University.

**Abstract:**

In 2003, the City of Killeen Fire & Emergency Response Department implemented and installed Mobile Data Terminals (MDTs) in emergency response vehicles. MDT technology is widely used in the emergency response industry to deliver 911-dispatch information to the emergency vehicles. With lives on the line, quick response is paramount. However, the network bandwidth to the vehicle did not allow for detailed map presentation to emergency response personnel. In 2006, Killeen GIS staff developed professional quality map books as a backup for emergency call site location. ESRI's PLTS Map Production System Atlas was acquired and used to create an SDE enhanced map book. The map books features an efficient update process, rich information, and easy-to-view map pages. This paper illustrates the processes and methodologies used in needs assessment, implementation, and final production printing of map books for emergency response personnel.

## Even the best laid GIS plans will not be a success: That takes people.

SUZANNE ARMSTRONG

**Biography:**

GIS Anaylst II, currently with Williams Exporation and Production. 8 yrs Oil and Gas expierence, in Upstream and Downstream GIS implemenations.

**Abstract:**

The degree to which a successful GIS plan is gauged is solely dependent on the staff which will build it, maintain it, and manage the GIS evolution over time. Companies need smart people who not only know the business but, ones that really can operate the GIS system. Building a strong internal staff is not an event but an process for most companies. What helps to achieve building strong internal staff? Some of the answers can include defining GIS team roles, placement of the GIS staff, and continuous training for all end GIS users. Money can always buy more software and hardware, but good staff is invaluable. Creating the motivation and excitement required for obtaining and retaining incredibly talented GIS staff is the ultimate task for any company.

## Implement Your GIS One Year Ahead of Schedule – A City of Longview Case Study

NIRAV SHAH, GISP
JUSTIN CURE, GISP





**Biography:**

Nirav Shah, GISP - Nirav has over seventeen (17) years of experience in GIS and GPS technologies, and has managed more than 100 projects over the past 14 years. He is highly experienced in Systems Integration Planning, Data Migration, Applications Development, Needs Assessment and Implementation Planning, Quality Assurance, Project Management, and Training. Nirav has personally supervised and has been involved in many legacy-to-ArcGIS data migration projects. His project experience ranges from GIS Needs Assessments to full-scale Enterprise Implementations. He has hands-on experience in systems integration, applications development, data conversion, data migration, database design, project design, and project management. His project management approach is client centric, which assures the client successful completion of all projects. Nirav has been involved in GIS projects for local and federal governments, appraisal districts, utility companies, telecommunication companies, and other industries. He has worked with all departments in local government agencies and understands their business practices. This allows him to cater technical solutions to meet the specific business needs of agencies as opposed to modifying business processes to meet technical requirements.

Justin Cure, GISP - Justin has over 8 years of experience with GIS. He is the GIS Administrator for the City of Longview, Texas where he is in the final stages of creating an enterprise GIS. This included every phase of enterprise creation, including hiring staff, purchasing hardware and software, database design, data conversion, application development, training, and integration with third party systems. Justin received his Bachelor of Science in Geography from Stephen F. Austin State University in 2000. After college, he began his professional career at the City of Arlington, Texas as a GIS Technician in the Water Utilities department. He was promoted to GIS Supervisor after a year and a half. Justin is a certified GIS professional, an ESRI Authorized Introduction to ArcGIS Instructor and a member of URISA. Justin is also the past President and current Secretary/Treasurer of the East Texas GIS/GPS Users Group. He has been a member of SCAUG since 2002 and has served as the Assistant Publications Coordinator for two years and the North Texas Representative this past year.

**Abstract:**

This presentation discusses in detail how to manage your GIS program such that the enterprise implementation can be completed ahead of schedule. The presentation discusses point of view of the City and what needs to be done by the City GIS Manager in order to accomplish a successful project on time and within budget and it discusses vendor's point of view on completion of a major project one year ahead of schedule. Dos and Don'ts as well as tricks of the trade are revealed in this program management presentation that can be used for most any implementation project.

## The Use Of A GIS-Based Algorithm To Prioritize Sanitary Sewer CCTV Invesitgations

JOSEPH MOLIS

# Presentation Abstracts (Cont.)

**Biography:**

Mr. Molis works for GSWW, Inc., a civil engineering company, and has been in the water/wastewater industry for 7 years.

**Abstract:**

Utilities throughout the nation struggle to maintain their wastewater collection systems, and as their infrastructure grows older, it becomes more difficult to direct resources to inspect and maintain sewer lines. For any fiscally responsible entity, it is necessary to prioritize and focus resources on those sewer lines which represent the largest potential for failure, or those lines which are considered "critical" because of factors including age, location, and construction material. For pipes with a diameter less than 36 inches, a GIS-based algorithm was created to prioritize pipes for inspection and maintenance. In this algorithm, sewer pipes are grouped into clusters based on pipe age. These pipe clusters are evaluated based on criteria including Wet to Dry Wastewater Peaking Factors from flow monitoring studies, Evaluation Data from previous sewer studies, and Cluster Score based on the number of defects in each cluster. The output of the algorithm is an Overall Cluster Score which organizes the pipes into priority levels. This prioritization allows a utility to focus resources on the assets in most need of attention.

## Making GIS Available to the Masses – Implementing GIS for the Internet & Intranet

MICHAEL FRANSCHMAN

**Biography:**

Michael is Orion's North American Sales Manager and Geographic Information System (GIS) professional with a solid background in the implementation of Orion and ESRI based GIS solutions.

**Abstract:**

Orion Technology Inc. is a product development and integration company, specializing in web-GIS solutions which are sold as extensions to ESRI's ArcIMS, ArcSDE and ArcGIS server will now offer organizations even greater flexibility with increased functionality while still providing the ability for the "non-programmer" to setup and maintain a complete Internet / Intranet site(s). In this presentation, we'll discuss how we helped these organizations with their Web-GIS.

Arlington County, Virginia, USA - They are currently using OnPoint™ internally for data reference purposes. One primary use is the retrieval of site plans and other engineering drawings by employees across the County. It is important that the County provide desktop access to these documents, to eliminate time-consuming trips to the file room. Also, the data is organized such that individual tabs hold activity-specific data. For example, the engineering tab contains all of the County's utility data, locations of site plans, current engineering projects, control monuments, and topography.

Truckee Doner, CA, USA - TDPUD needed an intranet solution that would bring





their multiple advanced GIS systems and spatial databases together, and make it easy for staff members to find the information they needed. They have created a comprehensive system that accommodates the organization's end-to-end information cycle; using wireless devices, the field staff can query the organization's GIS data, input updated information, and transmit it back to the central servers, thus keeping the overall data well-maintained and available to everyone in the organization.

MPAC, Ontario, Canada - By joining the OnPoint based intranet GIS application AIM (Assessment Information Mapper), with MPAC's corporate DTS (Document Tracking System) database, MPAC staffs are able to dynamically spatially track and view DTS data for "work in progress" on properties across the Province of Ontario.

## Spatial Analysis of Fort Worth's Recycling Program

ROBERT WACHAL

**Biography:**

Robert Wachal is currently in the United States Coast Guard. He is a full time student at the University of North Texas, majoring in Geography.

**Abstract:**

In 2003, the City of Fort Worth adopted a new recycling program to increase recycling rates. While this change did increase recycling rates, it also resulted in an increased number of rejected recycling loads. Since the inception of the new program the City of Fort Worth has lost over two million dollars in revenue due to rejected recycling loads.

GIS, Census data, and recycling records were integrated in order to determine which recycling routes the city should concentrate their education and advertising efforts. Recycling records consisted of the number of rejected loads (n = 238) and customer violations (n = 19,433), which were geocoded by route. Recycling routes were then overlaid onto the census blocks to extract race and age information and overlaid onto census block groups to extract income information. These demographic variables were standardized based on the population of each route. To investigate any potential relationships between recycling behavior and demographics, the number of rejected loads and customer violations were compared to the race, age, and income for each route using a statistical software package (SPSS).

A statistically significant relationship was not found between the number of customer violations and any of the demographic variables analyzed. However, there were statistically significant relationships between the number of rejected loads and the age, race and income of the residents. Routes with a higher percentage of younger, lower income and minority residents had a higher rate of rejected recycling loads.

## LocateOk – Oklahoma's IMS Application for Site Selection and Economic Development

SOHAIL HASANJEE
KIRAN DARAPUREDDY

# Presentation Abstracts (Cont.)

**Biography:**

Sohail Hasanjee is the GIS Program Manager for the Oklahoma Department of Commerce. Kiran Darapureddy is the Project Manager for PBS&J's Information Solutions group in Dallas/Tyler.

**Abstract:**

The Oklahoma Department of Commerce's (ODOC's) interactive pubic GIS web site was developed to provide location-based intelligence on population, labor force, educational attainment, infrastructure, and other factors that assist businesses in making sound decisions on site selection, business expansion and relocation. This web site provides detailed data and maps of available commercial and industrial buildings and property across the state, along with ODOC certified sites, business directories, information on business and tax incentives and census data. Census data can be viewed at the county and city level; percentages of high school graduates, college graduates, per capita personal income, median family income, and median household income are displayed through various layers. Apart from having the ability to view the data in the form of maps, users can also search for specific information such as labor force information, employment and unemployment numbers at various geography levels. The ability to view infrastructure layers such as airports, railroads, waterways and highways as well as the location of buildings and sites, is of great advantage to the users, as they can evaluate the pros and cons of selecting a particular building or site before making a final decision. http://www.okcommerce.gov/locateok/

## Mapping Criminal justice or Justice, thy name is GIS!

TIM NOLAN, GISP

**Biography:**

Tim has been the GIS Administrator at Collin County, Texas since 1992. He established a student internship twelve years ago that still strives today. He has acquired over $400,000 in grant funding since 2001. Plus, he also manages a small, yet dedicated six member staff. One of our departmental goals is to stress the importance of spatial information in decision making. And, we still work in the basement of the Courthouse.

Tim has served as the President and Texas Representative of SCAUG. Much to the shock and delight of his parents, he graduated from the University of North Texas with a Geography degree in 1991. He was also one the first 1000 to become a Certified GIS professional (GISP) in 2004. After 15 years, he still loves his job.

**Abstract:**

From arrest to arraignment and punishment to parole, GIS is there! Okay, that's a bit over the top. The truth of the matter is that 59% of every county tax dollar goes to public safety. In order for our GIS department to compete for annual budget dollars, I had to prove that GIS plays a role in public safety. I was actually amazed at how much of a role GIS does play in the criminal justice system.

The presentation will cover many aspects of how GIS can be used in public safety and criminal justice. Mapping crime, probationers, parolees, locational conflict and the like have proven to be very effective when making your case. We have found that the more you work with departments the more stuff they want. Therefore, some portions of the presentation will be completed projects, some will be proofs of concept while others will be works in progress. Hopefully, the public sector members of the audience will see how GIS integrates with public safety and criminal justice. The private sector may find value in the presentation for the business opportunity.

Remember: A picture tells a thousand words, but a map tells a thousand words in a deep, cool, sexy Barry White-like voice.





## Integrating HTE with ArcSDE - A Case Study

DAVID MCCOURT
BILL SCOTT

**Biography:**

David McCourt is the Application Development Manager for Softwhere Solutions, a GIS consulting company based in Dallas. Bill Scott is the GIS Manager for the City of Lewisville, Texas.

**Abstract:**

The City of Lewisville records its enterprise data using an application provided by HTE, Inc. City data with a physical location such as code violations are related to a tabular record in HTE that describes where the property is located. Working with Softwhere Solutions, the City developed a workflow to automatically export these physical locations from HTE and import them into the City's enterprise GIS system stored in ArcSDE for SQL Server. Storing the code violations as point features in ArcSDE allows City staff to perform geographic analysis to identify at-risk neighborhoods. This presentation will describe the techniques used to automatically geocode the code violation locations and present them in ArcGIS.

## What in the World is Geocaching?

HEATHER NICK

**Biography:**

Heather Nick is the Senior Planner for the City of Tyler. Prior to becoming the senior planner, she was the GIS developer for the City of Tyler GIS Department. She began her professional career in the private sector over seven years ago as a GIS Technician, then later as Web Developer and GIS Data Administrator. Heather has been a member of the South Central ARC User Group (SCAUG) since 2003 and has served as the Publications Coordinator since 2004. She enjoys the rewarding high-tech game of geocaching. She says, "It's a great hobby for hiking enthusiasts, techie-nerds, and gadget freaks. The treasures can be a little quirky; but, the biggest reward is the challenge of the search and discovering new places!"

# Presentation Abstracts (Cont.)

**Abstract:**

Geocaching is an outdoor treasure-hunting game where participants seek out the caches utilizing a Global Positioning System (GPS) Device and coordinates posted on the internet by those hiding the cache. A typical cache is a small waterproof container containing a logbook and any number of more or less valuable items affectionately known to Geocachers as the "treasure". This presentation will step through the geocaching adventure. Learn how to select a GPS device, prepare for the hunt, hide a cache, and clean up parks and other cache-friendly places by sharing in the Cache In Trash Out (CITO) philosophy. Discover the benefits associated with geocaching such as mastering your GPS device, seeing new places, spending time with family and friends, exercise, and much more!

## Are Your Outfalls Out of Place? Are Your Inlets Letting You Down? Are Your Manholes Full of Holes? Get You Utility Data Ready To Do More Than Just Make Maps!

TERI LANDRUM, GISP, CARTER & BURGESS, INC.

**Biography:**

Teri has been a GIS professional for over 14 years. She has worked her way up the ranks from technician to analyst to application programmer to administrator/manager and now to specialist/consultant. Teri's most recent projects have involved database design, data modeling, database administration, project management and system implementation/integration. Her experience includes ArcGIS, ArcSDE, ArcIMS, SQL Server, G/I/S's Zoning Analyst, GBA Master Series Asset Management suite of software and Hansen Asset Management software. Teri graduated from University of North Texas in 1993 with a Bachelor's in Geography.

**Abstract:**

The largest and most expensive component of building a GIS is gathering, creating and formatting data. Deciding what data is needed and how it is going to be used is an integral part of the process. In the past, choosing to create and invest in GIS technology was initially fueled by the need to provide access to geographic data from the user's desktop and to produce maps and mapbooks. In many cases, system integration, asset management, modeling, regulatory compliance and condition assessment were afterthoughts. I will discuss how Carter & Burgess, Inc. is helping a Dallas/Fort Worth government organization develop a GIS Storm Drain network to support MS4 compliance efforts, general system maintenance protocols, asset management and future system and incident management applications.

## Wastewater Master Planning with GIS

SANTA G. RIVAS

**Biography:**





BA in Geography from UTSA (University of Texas in San Antonio), Planner in Wastewater Master Planning for 4 years (San Antonio Water System).

**Abstract:**

Using ArcGIS to master plan for the future growth of San Antonio and its wastewater needs, in order to accommodate future demands on the system.

## Micro-Level GIS: Using GIS for intra-building analysis

AMY ROSE

**Biography:**

Amy Rose is currently a GIS Technician with the fast growing City of Frisco, Texas. Originally introduced to GIS while completing her degree in Economics, she realized the field of GIS was not only a valuable tool for economic study but also a multitude of more far-reaching subjects. Since then, Amy has gained several years of GIS experience at the federal, county and now local levels of government and is currently continuing her education within the GIS Master's Program at the University of Texas at Dallas.

**Abstract:**

An Egress Analysis for a large public building is conducted within the framework of a Geographic Information System (GIS) utilizing ESRI's Network Analyst. The study provides travel cost from locations within the building to various first floor exits, determining best routes based on an established evacuation plan. In addition to this analysis, general intra-building GIS issues are discussed.

TOPICS:

> Current intra-building applications

> Data acquisition and creation, including CAD translation

> Use of Network Analyst for egress analysis

> Analysis results

> Examples of practical and successful uses of an intra-building GIS

## Approaches to Floodplain Mapping

BARRETT GOODWIN, CFM
ROBERT HOUSTON, GISP, CFM

**Biography:**

Barrett Goodwin works at CDM in Dallas, Texas as a GIS Specialist. He has 4 years of experience in environmental consulting.

Robert Houston works at CDM in Dallas, Texas as a GIS Specialist. He has 8 years of experience in GIS with 4 of those years in consulting.

# Presentation Abstracts (Cont.)

**Abstract:**

Floodplain delineation can be achieved utilizing different techniques that are dependant upon budget, available data, and desired accuracy. This presentation will discuss techniques used for floodplain delineation for detailed studies, redelineation of effective information, and a non-georeferenced model. We will also discuss different types of topographic data formats such as GRID and TINs.

## Addressing Centerline in Batch Mode

XINGWEN CHEN

**Biography:**

Senior GIS Programmer, working for NTB Associates, Inc., Shreveport, LA. SCAUG Louisiana Rep.

**Abstract:**

A batch processing tool has been developed to automatically addresses 911 centerlines based on predefined addressing schemes. This ArcGIS extension works directly from ArcGIS Desktop and has two major functions. (1) Address centerlines based on user specified distance formula. User specifies how many addresses per foot and the beginning address, the tool does the rest. (2) Address centerlines based on intersections. The tool generates a street intersections table based on the specified centerline. After comparing the generated intersections table with historical record and correcting the differences, the tool automatically addresses the data set based on the intersections table. Both tools have a unique feature for users to interactively address streets that have "displacement" segments and virtually link them together, and then address the street sequentially. The tool can also detect topological errors such as incorrect segment direction, discontinuity, and duplicates.

## True Or Full: Block Ranges for Computer Aided Dispatch

GARRI GROSSI

**Biography:**

Garri Grossi is the City of Plano, TX Senior GIS Analyst for Public Safety and has over 10 years experience in the GIS industry. Analyst, programmer, ESRI Authorized Training Partner, and more...makes Garri a Jack of All Trades.

**Abstract:**

This presentation will cover the pros and cons of choosing among the different styles of address block ranges for a Computer Aided Dispatch. Depending on the CAD software limitations and available datasets, it is up to the GIS Analyst to make the best recommendations based on all available known variables.





## Enterprise Integration at the City of Longview

NIRAV SHAH, GISP

**Biography:**

Nirav Shah, GISP - Nirav has over seventeen (17) years of experience in GIS and GPS technologies, and has managed more than 100 projects over the past 14 years. He is highly experienced in Systems Integration Planning, Data Migration, Applications Development, Needs Assessment and Implementation Planning, Quality Assurance, Project Management, and Training. Nirav has personally supervised and has been involved in many legacy-to-ArcGIS data migration projects. His project experience ranges from GIS Needs Assessments to full-scale Enterprise Implementations. He has hands-on experience in systems integration, applications development, data conversion, data migration, database design, project design, and project management. His project management approach is client centric, which assures the client successful completion of all projects. Nirav has been involved in GIS projects for local and federal governments, appraisal districts, utility companies, telecommunication companies, and other industries. He has worked with all departments in local government agencies and understands their business practices. This allows him to cater technical solutions to meet the specific business needs of agencies as opposed to modifying business processes to meet technical requirements.

**Abstract:**

This presentation discusses how to identify integration candidates, develop an integration plan, integration problems and keys to success. It explains how to answer questions such as: Will it be beneficial to integrate?; nShould the integration be real time or should a weekly download be done?; What unique identifiers can be used to link the systems?; What attributes should be brought into the GIS?; Are there any security concerns that should be taken into account?; etc. The presentation uses examples from the City of Longview on steps taken to integrate many third party softwares with the enterprise GIS.

# GIS—Better Decisions through Modeling and Mapping Our World

*Businesses manage a world of information. At the core of this information is a geographic location, such as an address, a service boundary, a sales territory, or a delivery route, that can be viewed and analyzed on a map. By using ESRI's scalable family of ArcGIS® software, businesses can unite information from many departments to create a common, map-based data display, analysis, and dissemination platform, enabling staff to visualize data in new ways. This geographic data can be used across departments, in the field, and on the Internet, resulting in faster and more informed business decisions.*

**ESRI Philosophy**

ESRI believes that better information makes for better decisions. Our reputation is built on contributing our technical knowledge, our special people, and our valuable experience to the collection, analysis, and communication of geographic information. Founded in 1969, ESRI is the leading developer of geographic information system (GIS) software with more than 300,000 clients worldwide.

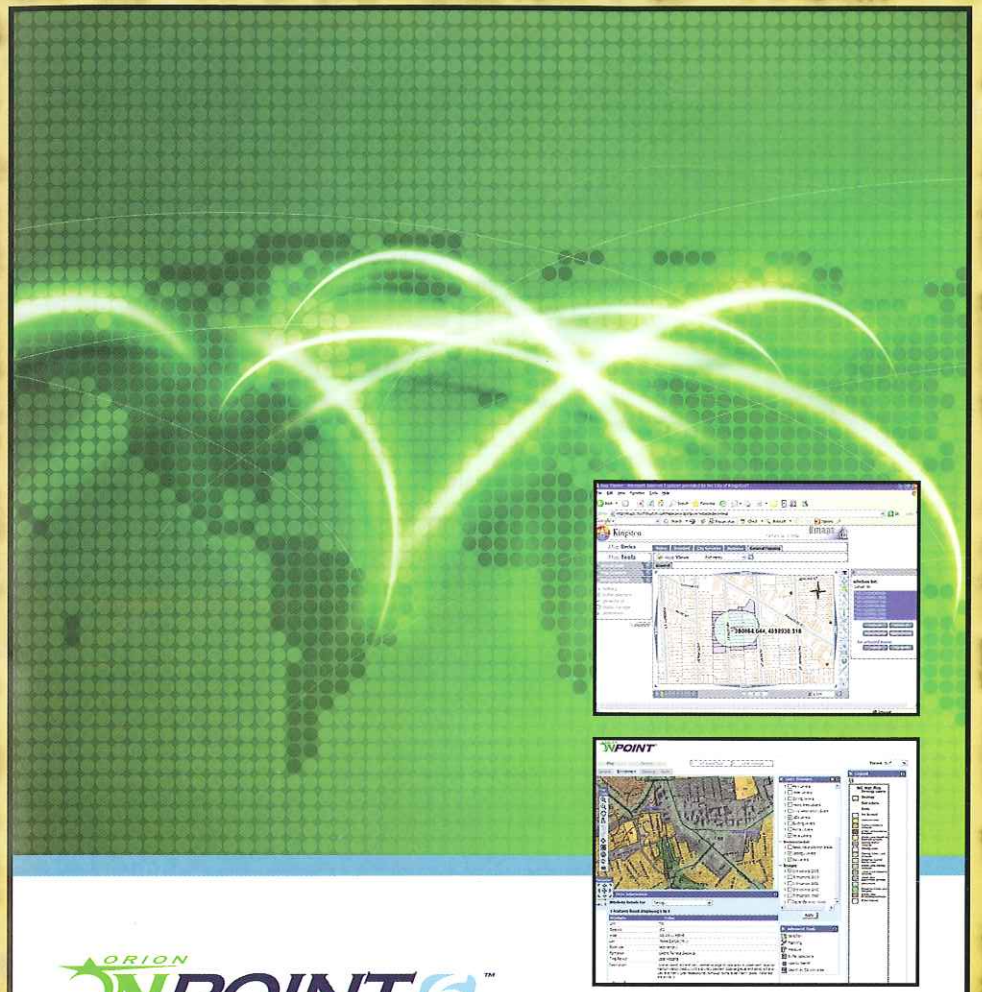
Contact us today to learn how ESRI's GIS is helping to manage and improve business operations around the world.

ESRI

1-800-447-9778

info@esri.com • www.esri.com

Copyright © 2005 ESRI. All rights reserved. The ESRI globe logo, ESRI, ArcGIS, www.esri.com, and @esri.com are trademarks, registered trademarks, or service marks of ESRI in the United States, the European Community, or certain other jurisdictions. Other companies and products mentioned herein are trademarks or registered trademarks of their respective trademark owners.



ORION NPOINT 6™

# Implementing Enterprise GIS for the Internet & Intranet

Over 100 clients in 16 countries and growing.

**Visit us at our booth**

ORION® EMPOWERING SPATIAL DATA™

# GSI... *(no, it's not misspelled!)*

## Premier GIS Software, Services and Solutions

***WebMaps***
***Enterprise GIS***

***Spatial Search***

***Post-It***

***Layer Wizard***

*For over a decade, Geodynamic Solutions, Inc (GSI) has specialized in the design, development, implementation and training of enterprise-wide geospatial applications built upon the full suite of world-leading geographic information system (GIS) technology from Environmental Systems Research Institute, Inc. (ESRI).*

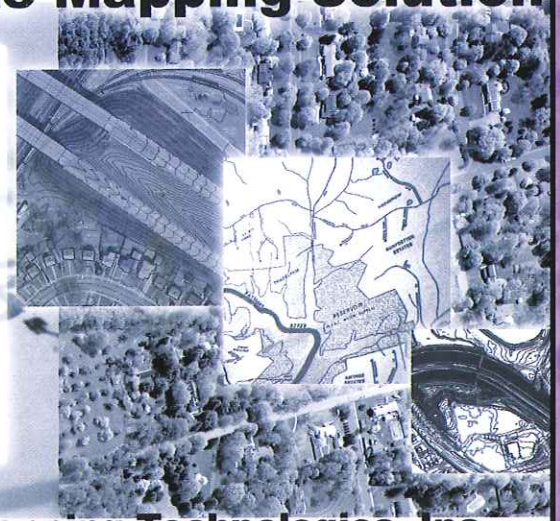
- **Enterprise and Desktop Products**
- **Custom Application Development**
- **Consulting Services**
- **Strategy & Planning**
- **Map Development Services**
  (Over 30 mappers on staff)
- **Training**
- **Staff Augmentation**

2600 South Gessner, Suite 420
Houston, Texas 77063
713.690.4812
**www.geodynamic.com**

gsi geodynamic solutions inc.

# Your Complete Mapping Solution

- Digital Aerial Photography
- Analytical Triangulation
- Topographic/Planimetric Mapping
- DTM/DEM Collection
- Highway & Design Scale Mapping
- Airport Obstruction Analysis
- Photo/LIDAR Acquisition
- GIS/CAD Map Finishing
- Photo Interpretation
- Volumetric Calculations and Analysis
- ArcInfo/ESRI Customization
- Quality Control/Quality Assurance



## Pinnacle Mapping Technologies, Inc.

8021 Knue Road, Suite 113 Indianapolis, IN 46250 317-585-2011 www.pinnaclemapping.com
Branch Offices: Albuquerque, NM & West Palm Beach, FL
Email: bgray@pinnaclemapping.com / rmking@pinnaclemapping.com

## From the Desktop to the Enterprise— LoGIStics Solutions That Pick-up and Deliver.

**RouteSmart Technologies** understands the middle name of logistics is GIS™! Over the past two decades we've delivered scalable, sustainable GIS-based routing solutions that operate using the ESRI technology platform. RouteSmart software is specifically designed to meet the demanding route planning needs of the newspaper, postal/local delivery, public works and utility meter reading industries.

**To learn more, route yourself to www.routesmart.com or call us today 1.800.977.7284.**

RouteSmart TECHNOLOGIES
*The world's most intelligent routing system.*

EI Technologies, LLC is a full-service GIS consulting company that has been providing high-quality GIS data and applications, and excellent customer service to local, state, and federal government agencies and other industries since 1992.

*ESRI Development Partner*

*Microsoft Business Partner*

**EI Technologies, LLC**
Envision it
Plan it
GIS
Implement it

*More than 200 successful GIS projects*

*GSA Schedule 899*

**EI Technologies, LLC**
**19750 E. Parker Square Drive**
**Suite 100**
**Parker, CO 80134**
**(720) 851-1717 Voice**
**(720) 851-5550 Fax**

**AGTS, LLC**
**255 S. Denton Tap Road**
**Suite 200**
**Coppell, Texas 75019**
**(972) 745-3444 Voice**
**(972) 745-3339 Fax**

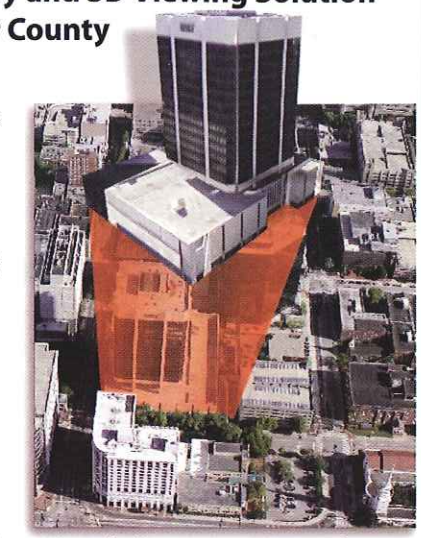
**info@eitek.com**
**www.eitek.com**

## Our services include

- **ArcGIS/ArcSDE Implementation**
- **GIS Data Conversion/Migration**
- **Needs Assessment and Implementation Planning**
- **Customized Applications Design and Development**
- **Geodatabase Design and Development**
- **Systems Integration**
- **IT Security Assessment**
- **Project Management**
- **Training and Technical Support**
- **Web Development and Hosting**

## The Only All-In-One Oblique Imagery and 3D Viewing Solution for *Every* Department in Your County

- Simple 3D modeling allows Property Assessors to evaluate building structures quickly and accurately.
- Unrivaled image clarity enables Public Works to inventory county assets in the GIS environment.
- 3D flood modeling assists Public Safety in planning emergency response activities of any type.



Every MultiVision 3D Plus purchase includes:

- 3+ inch pixel aerial imagery
- 3D modeling with real building facades
- 3D flood simulation
- Integration with ESRI 3D tools

**MultiVision 3D Plus** is the only integrated oblique imagery solution your county needs to view buildings and infrastructure in 3D for property appraisal, emergency planning and asset management. Forget about third party vendors and expensive software add-ons.

MultiVisionUSA™ **Call Now for a free Trial Offer!**
MultiVision USA • 1-407-367-0883 • www.mv-usa.com

## Where innovation turns for guidance.

NAVTEQ®

One Map for GIS and MRM.

www.navteq.com/about

**NTB Associates, Inc.**
**Engineers • Surveyors • GIS**

ESRI Technology
AUTHORIZED BUSINESS PARTNER

**GIS Services Include:**

- Project Design and Management
- Database Development and Management
- Data Conversion and Creation
- Custom Software Development
- Data Analysis
- Hardware/Software Needs Assessment and Installation
- ArcIMS/ArcServer Design, Development and Implementation
- ESRI Authorized Training

**Dallas, TX • Shreveport, LA • Little Rock, AR • Fort Worth, TX • Baton Rouge, LA**

214.954.4495 • www.ntbainc.com

## TEACHMEGIS.COM

GIS TRAINING CENTER

http://www.TeachMeGIS.com

**GIS Training, Consulting, and Software Sales**

An ESRI Authorized Partner Education Center Offering GIS Training since 1997.
With our team of 9 ESRI Authorized Trainers, we offer courses in **Houston, Dallas, Baton Rouge, New Orleans** and **Alexandria.**

Call us if you would like a GIS course taught in your city or your office!

Check our website for a current course list and calendar.

ESRI Technology AUTHORIZED PARTNER EDUCATION CENTER

info@TeachMeGIS.com • (713) 278-7883

real vision
## Inspiring reality

Geospatial implementation
Data development
Application development
Web application hosting

The next GIS project initiative...the deployment of an enterprise solution...the alternative project approach that saves critical time and money.

Visualize the future. Then call PBS&J. PBS&J

Offices throughout the US • pbsj.com • 888.649.7275

96-72000

## Better GIS.

Connect your CartêGraph management system directly to a geodatabase using an embedded solution based on ArcGIS from ESRI. Using this embedded, integrated design, all departments can directly access your GIS data. There is no need for redundant data entry—information that you enter is automatically available to other users.

CartêGraph | Better Government

flex TECHNOLOGY

WORK FLOW MANAGEMENT
ASSET MANAGEMENT
**GIS INTEGRATION**
1 GEODATA*connect*
2 GIS*director*
3 MAP*director* | ArcGIS

## listen. think. deliver.®

**CDM®**
www.cdm.com
777 Taylor Street, Suite 1050
Fort Worth, Texas 76102
tel: 817 332-8727 fax: 817 332-6870

consulting • engineering • construction • operations

# One Source, One Firm℠.

Architecture | Engineering | Planning | Land Development

Fort Worth | Dallas | Houston | San Antonio | Austin
800.123.4567 | www.c-b.com

**Carter::Burgess**

# Cityworks™

AZTECA SYSTEMS, INC.

*GIS - Centric Asset Maintenance Management*

NAVIGATION ELECTRONICS, INC.
NEI

Your Complete GPS Solution Provider

Contact William Poche for more info 337.237.1413 • william_poche@neigps.com

Louisiana State
Contract #406522

NAVIGATION ELECTRONICS, INC.
800.949.1446 • wwwneigps.com

Trimble

Developing the future while respecting the natural environment and cultural past.

Geographic Information Systems • Environmental Sciences
Cultural Resources Studies • Engineering Design • Field Support Services

LOPEZGARCIA GROUP
www.lggroup.com

ESRI
Technology
AUTHORIZED
BUSINESS PARTNER

# P2 ENERGY SOLUTIONS

Petroleum Place Energy Solutions, L.P.
1355 Central Parkway South, Suite 500
San Antonio, Texas 78232

**Photogrammetric Services Include:**

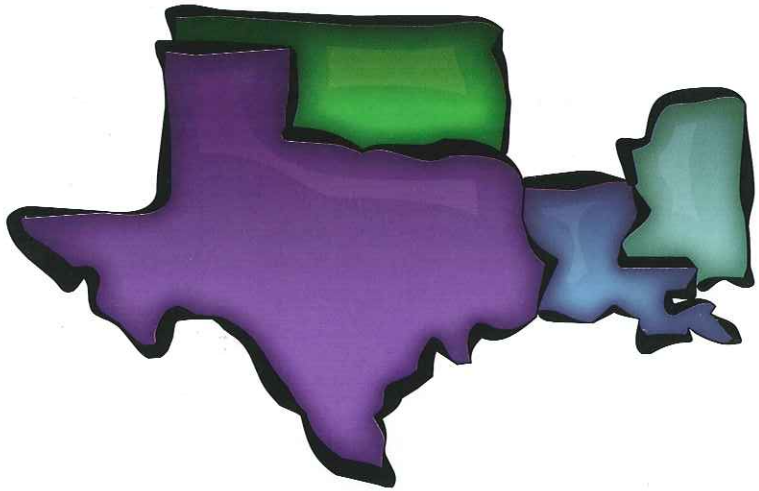
- Aerial Photography
- Historical Photo Archive
- Field Survey & Airborne GPS
- LiDAR Acquisition & Processing
- DTM/DEM Compilation
- Digital Orthophotography
- Contour & Planimetric Mapping
- Data Conversion
- GIS Services
- Tobin® Map Data Products

800.365.4484 · sales@p2es.com · www.p2es.com

# ArcIMS ➡ ArcGIS Server

Visit us at booth 14
www.geocortex.com

geocortex®
INTERNET MAPPING
A division of
Latitude Geographics Group Ltd.



# SCAUG

South Central Arc User Group

*18th Annual Conference*

# SCAUG 2008

Corpus Christi

Announcing next year's conference!

We are set to take next year's conference to Corpus Christi. This makes it easier for our members to prepare their budgets and make arrangements in advance. Start planning now.

## Corpus Christi, TX
4/7/2008 - 4/11/2008

Omni Corpus Christi

Hotel-Bayfront and Marina Towers

SCAUG Hotel Rates:

Single - $109.00
Double - $129.00
(Non-government Agencies)

Single - $85.00
Double - $129.00
(Government Agencies)

**SCAUG 2008**
*18th Annual Conference*
Corpus Christi

**Corpus Christi, TX**
4/7/2008 - 4/11/2008

**Omni Corpus Christi**
Hotel-Bayfront and Marina Towers

**SCAUG Hotel Rates:**
Single - $109.00
Double - $129.00
(Non-government Agencies)

Single - $85.00
Double - $129.00
(Government Agencies)

17th Annual Conference
SCAUG 2007
NEW ORLEANS

*Place Postage Here*

*To:*

17th Annual Conference
SCAUG 2007
NEW ORLEANS

*Place Postage Here*

*To:*