

Urban and Regional Information Systems Association

Annual Conference of the Urban and Regional Information Systems Association

URISA 2008

October 7-10, 2008
New Orleans, Louisiana, USA

Volume 1 of 4

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571
www.proceedings.com

ISBN: 978-1-60560-765-8

Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2008) by the Urban and Regional Information Systems Association
All rights reserved.

For permission requests, please contact the Urban and Regional Information Systems Association
at the address below.

Urban and Regional Information Systems Association
1460 Renaissance Drive
Suite 305
Park Ridge, Illinois 60068

Phone: 847-824-6300
Fax: 847-824-6300

info@urisa.org

TABLE OF CONTENTS

Volume 1

ABSTRACTS	1
------------------------	---

PAPERS AND PRESENTATIONS

CROSS JURISDICTIONAL COLLABORATION

2008 ESIG Winner Horry County, SC – The Grand Strand	30
<i>Tim Oliver</i>	
Census 2010 – Local Update of Census Addresses (LUCA) Program in Delaware County	41
<i>Shoreh Elhami</i>	
The Vision for a Nation-wide Address Database.....	54
<i>Will Craig</i>	
Managing a Regional Orthophoto Consortium: Project Management Tips & Tricks	67
<i>Matthew Krusemark</i>	
Community-Wide Data Sharing - Let's Make it Easy	97
<i>Anne Payne, Lynda Wayne, David Tulloch</i>	

MANAGEMENT & PROFESSIONAL DEVELOPMENT

A Strategic Plan for Countywide GIS	111
<i>Peter Owens</i>	
Tracking the Elusive Anonymous GIS User in King County	129
<i>Greg Babinski</i>	
GIS Data Sharing: A Canadian Regional Government Perspective.....	141
<i>David Murray</i>	
Bringing Operational GIS into University Classrooms	164
<i>Wendy Guan</i>	
Real World GIS Skills Development from Classroom to Boardroom - Soft Skills a GIS Professional Needs to Succeed.....	178
<i>Chris Thomas</i>	
URISA Leadership Academy Overview.....	184
<i>Hilary Perkins, Mike Lovett</i>	
URISA's GISCorps	193
<i>Mark Sailing, Dianne Haley, Ingrid Bruce, Shoreh Elhami</i>	
The GISCI Certification Program.....	230
<i>Al Butler</i>	
Understanding the Responsibilities of Surveyors and GIS Professionals	240
<i>Bruce Joffe, Eric Bohard, David Gibson</i>	
Secrets to Project Management Success/Paper.....	277
<i>Keith Fournier</i>	
GIS Program Review: Moving Forward, Solving Problems, and Integrating Operations.....	329
<i>Rebecca Somers</i>	
Agile Kick Start.....	342
<i>Allen Ibaugh, Jason Amadori</i>	

Identifying and Evaluating Geospatial Competencies	450
<i>David DiBiase, Al Butler</i>	

3D GIS

Using 3D GIS as a Tool to Integrate Factors Associated with Planning	462
<i>Jorge Morteo</i>	
360° Street-level Video: The Next Step.....	489
<i>Ken Hoffman</i>	
Data Management of Large 3D Urban Scenes.....	494
<i>Xavier Lopez</i>	
View Study of Proposed Transmission Line	505
<i>Helen Peng</i>	
Automated Feature Extraction Using 3-D GIS: A Case Study of Mobile Mapping.....	519
<i>Jason Amadori</i>	
Urban 3D GIS Models-Finding the Right Technology to Bring 3D to the Masses	548
<i>Tom Conry</i>	
Practical Application of GIS Driven 3D Models for Contaminated Site Remediation	557
<i>Jeffrey Laird</i>	

Volume 2

Visualization of Climate Change Scenario in South West Victoria, Australia	568
<i>Dr Chris Pettit</i>	

GEOSPATIALLY ENABLED ENTERPRISE

Thirteen Key Issues to Address in Technology Implementation.....	599
<i>Marianne MacDonald</i>	
Don't Shoot Me, I'm Just the Librarian:Data Ownership Fosters Enterprise Success	645
<i>Greg Bury</i>	
A Spatial Analysis of California Broadband Availability.....	649
<i>Malcolm Adkins</i>	
Integration of Geospatial Technology and Enterprise Content Management	678
<i>Stephen Beck</i>	
Geospatially Enabling a Document Management System	695
<i>Carl Anderson</i>	
An Operational Model of a Regional Geographic Information System	706
<i>Dharmesh Jain</i>	
Illinois Virtual Tollway (2008 ESIG Distinguished System).....	743
<i>Kurt Lebo, Jeff Siegel</i>	
URISA 2008 Award Application (Fontana, California).....	774
<i>Rogelio Matta, Joe Field</i>	
A System for the Cities by the Cities: The Quebec GOCit'e Initiative.....	787
<i>Alain Dombrowski</i>	
Operation of a Multi-Platform Enterprise GIS - Let's Play Nice	804
<i>Kim McDonough</i>	

Managing Change: Vermont's Enterprise GIS Initiative	.....808
<i>Stephen Sharp</i>	
The Power of Enterprise Addressing Systems	.....822
<i>Peter Thum</i>	
Implementing Enterprise Addressing Solutions: Issues and Challenges	.....840
<i>Bill Campbell</i>	
Deploying a GIS-Enabled, Centralized Addressing Authority in Mecklenburg County, NC	.....853
<i>Rhonda Buckner, Bill Campbell</i>	
Spatially Enabled Portal System for CIP Project Management	.....864
<i>Harry Poulter</i>	
Bridging Infrastructure and Urban Planning Data Using a "Geo-Portal"	.....874
<i>Marc Andre Paquin</i>	

EMERGENCY MANAGEMENT & HOMELAND SECURITY

Emergency Operations Center's (EOC) Incident Mapper	.....900
<i>Lee Hartsfield</i>	
Cooperative GIS Initiative for Regional Fire Protection and Disaster Planning	.....918
<i>David Allen</i>	
Marine Corps Leverages GIS and ArcGIS Server During the 2007 Southern California Wildfires	.....928
<i>Michelle Boivin</i>	
WebPuff TM - Automated Emergency Management Decision Support System (ESIG Distinguished System)	.....973
<i>Darius Kwiedorowicz, Dr Barbara Cochran</i>	
Postal Data & Google Maps Shine Light on New Orleans Recovery	.....986
<i>Denice Ross, Elaine Ortiz, Joy Bonaguro</i>	
GISCorps Volunteers Assist in Post Cyclone Disaster in Myanmar (Burma) and Post Katrina Recovery Efforts	.....1057
<i>Tom Ponte, Ingrid Bruce, David Allen</i>	
URISA GISCorps Volunteers Assist UNOSAT in Post Cyclone Nargis Relief Efforts	.....1110
<i>Einar Bjorgo, Tom Ponte, Karl Tiller</i>	

PUBLIC PARTICIPATION GIS (PPGIS)

Empowering Communities using Google Maps API	.....1115
<i>Wansoo Im</i>	

Volume 3

More than Just Maps: Engaging the Public with Real-Time GIS Models	.....1165
<i>Erin Perdu</i>	
Interactive Decision Support for Participatory Land Use Planning	.....1192
<i>Gustavo Arciniegas</i>	
Election Day Incident Mapping and Automated Analysis	.....1208
<i>Megan Heckert</i>	
Spoiled Ballots & Race: GIS and the Controversy over Voting Technologies in Ohio	.....1241
<i>Mark Salling</i>	
Construction of Test Bed for Spatially Integrated Online Social Survey System (SIOSS)	.....1253
<i>Ko Ko Lwin, Yuji Murayama</i>	

Role of Participation in the Development of MDPSS.....	1262
<i>Manoj Kumar Roy</i>	
Envisioning Sustainable Urban Neighborhood.....	1291
<i>Earl Bossard</i>	
Surveying the Extent of PPGIS Practice.....	1350
<i>Richard Amanna, Laxmi Ramasubramanian</i>	
Data Basin: PPGIS Tools that Bridge the Divide between Scientists, Policy Makers & Citizens	N/A
<i>Josh Knauer</i>	
Using PPGIS Tools in Small Town Planning.....	1375
<i>Judy Colby-George</i>	

DATA ACQUISITIONS & CONVERSIONS

High Field Productivity with Low Cost Tools - Two Examples	1380
<i>Mark Lyon</i>	
Improving Vertical Geodetic Data: Not So Easy in the "Big Easy"	1398
<i>Gilbert Mitchell, David Moyer</i>	
Using Innovative Tools to Ensure GIS Data Quality	1414
<i>Tamarin Gullett, Jim Bohn</i>	
Crossing the Digital Divide.....	1420
<i>Winchester Jordan, Conrad Comeaux</i>	
Evolution of a Geospatial Data Collection Utility: From Clipboard to Web Service.....	1433
<i>Jeffrey Trudnak</i>	
Leading Louisiana...Baton Rouge G.I.S	1452
<i>Warren Kron, Jose Villalobos</i>	
25 Years of Spatial Data Quality Research: Are We There Yet?	1458
<i>Gary Hunter</i>	
Sneak Preview: The New US Geospatial Metadata Standard.....	1463
<i>Lynda Wayne, Sharon Shin</i>	
Documenting Cultural Resources in the Wake of a Disaster	1472
<i>Deidre McCarthy</i>	
Disaster Recovery Planning for GIS.....	1484
<i>Keith Fournier</i>	
Participant Statistical Areas Program for the 2010 Census	1549
<i>April Avnayim</i>	
Analysing Inundation Areas Using 3D Analyst and Google Earth.....	1562
<i>Jonathan Posner</i>	
Data Capture and Data Mining of Urban Air Pollution: The Building-Based Approach	1588
<i>U W Tang</i>	
A Watershed Modeling System – Bringing the Models Together	1613
<i>Previn Wong</i>	
Conflate or Die- - Insourcing for a Stronger Enterprise	1631
<i>Garrett Dunwoody</i>	
Maximizing Value Extraction from Spatial Assets at USDA – APFO.....	1642
<i>Ken Melero</i>	
New Technologies for Parcel Fabric Management.....	1649
<i>Brent Jones</i>	

Limited Funding, Not Enough Staff Time & 56 Comp Plans – Building a Geospatial Regional Zoning Layer for the First Time	1679
<i>Robin Reiley</i>	

OPEN SOURCE & OPEN STANDARDS

Building Open Source Applications – Don't Bite off More Than You Can Chew	1713
<i>Eric Bohard</i>	
Ordinary Open Source Applications for Every Day	1726
<i>Sara Yurman</i>	

Volume 4

Web Mapping using Open Source Technologies	1738
<i>Mark Obremski</i>	
Commercial Internet Mapping Impacts Government GIS Data Development and Services.....	1758
<i>Wansoo Im</i>	
Streaming ArcGIS Maps to Google Earth	1816
<i>David Greene</i>	
Powering the GeoWeb: A Hands-On Survey of Protocols and Formats.....	1825
<i>Ryan Cragg, Drew Rifkin</i>	

INTERACTIVE TRACK

Interactive Track.....	1831
<i>Cy Smith, Danielle Ayan, Scott Riordon</i>	

NATURAL RESOURCES & ENVIRONMENT

Spatially Enabling Your Enterprise	1837
<i>Kim McDonough, Wendy Ritchie</i>	
Evaluating the Environmental Effects of Urban Sprawl Using Landscape Metrics	1854
<i>Michael Gilbrook</i>	
Land Use Capability Mapping of Tropical Drained Peatlands.....	1870
<i>Joseph Olakunle Johnson</i>	
Colorado Water for the 21st Century Act and GIS	1879
<i>Phyllis Thomas</i>	
Accurate Projections of Future Water Demands in Florida using GIS-Based Population.....	1893
<i>Justin Saarinen</i>	

PRIVACY & PUBLIC ACCESS

Santa Clara County Lawsuit: Implications to Public Geodata.....	1910
<i>Bruce Joffe</i>	

INFRASTRUCTURE

Building the Foundation for Sustainability: Linking GIS, Asset Management and Financials	1950
<i>Karen Stewart</i>	

The Benefits of Dynamic Segmentation to Local Government for Road Analysis	1989
<i>Bruce Aquila, Wendy Ritchie</i>	
Developing a Decision Support System for the Korean Expressway Corporation: Utilizing Google Maps API	2009
<i>Wansoo Im, Seungkirl Baek</i>	
Case Study: Ohio Franklin County Engineer's Snow Plow Routing Project.....	2048
<i>Craig Schorling</i>	
GIS and CADD Data Integration for Calculating Runoff from Impervious Surfaces for Watershed Protection	2063
<i>Isabel Canete-Medina</i>	
Using GIS to Map Recreational Trails (Pike Road, AL)	2072
<i>Mary Curry</i>	
A Holistic Approach to Asset Mapping: Sanitary Sewer Example.....	2081
<i>Nally Kaunda, Tim Barnes</i>	
Connectivity and Accessibility Measurement of Facilities in a Residential Complex	2097
<i>Hyunji Seo, Hoon Chang, Jyso Kim, Jindo Jeong</i>	
Road Sign Management System.....	2117
<i>Jeyoon Woo, Kyusoo Chong</i>	

GIS IN PUBLIC HEALTH

Facilitating GIS Usage with Open-Source Web-Based API's and Services	2159
<i>Daniel Goldberg, Andrew Curtis, Myles Cockburn</i>	
Stormwater Runoff, Catch Basin Biology and Mosquitoes in an Urban Area	2194
<i>Marilyn Ruiz</i>	
Using Spatial Tools to Examine Space–Time Dynamics of Mite Bite Outbreaks.....	2217
<i>William Syversen</i>	
Spatiotemporal Indexing with the M-Tree.....	2226
<i>Elias Loup, John Finigan, John Sample, Kevin Shaw, Mahdi Abdelguerfi</i>	
GIS and Local Health Department Business Processes	2231
<i>Scott Christman</i>	

URISA INITATIVES

Developing a Comprehensive Address Data Standard for the United States	2246
<i>Martha McCart Wells, Carl Anderson, Hilary Perkins, Ed Wells, Sara Yurman, Julie Maitra, Randy Fusaro</i>	

HOT TOPICS

GIS in K-12 Education.....	2254
<i>Wansoo Im</i>	

Author Index