



DC GIS Steering Committee Meeting

November 17, 2005

Barney Krucoff
GIS Director
Office of The Chief Technology Officer
Barney.Krucoff@dc.gov
202-727-9307



News Items

- **ESRI Enterprise License**
 - “All you can eat type of license” does not appear to be economical
 - “Negotiated schedule” type agreement not enough savings vs. GSA schedule to be worth the paperwork.
- **Why an Enterprise Software Agreement Matters**
 - Bureaucratic costs are a barrier to entry
 - Utilization information
 - Version control
 - Maintenance control



News Items

- Proposed enterprise software solution
 - OCTO uses consortium funds to buy a sufficient number of licenses and makes them available in a central pool and make them available to agencies.
 - Use is monitored and additional licenses added as needed
 - Agencies buy their own serve side licenses and mobile licenses
 - Agencies that already have significant pools of licenses may chose to be consolidated into the central pool.
 - If you do this, the Consortium account pays annual maintenance
 - PIF under review at OCTO



News Items

- Planimetric Update
- Public Lands update
- MWCOG GIS Committee update
 - Full Committee, Vice Chairman, Barney Krucoff
 - Technical Subcommittee Chairman, Charlie Richman
 - Data Subcommittee DC Representative, Caroline Molivadas
- DC GIS Tools on Citrix update
- Data sharing



DC GIS Data Status Report

Mario Field
DC GIS Data Team Lead



Updated DC GIS Data

- **Address Point**
- **Assessment Neighborhood**
- **Assessment Sub-Neighborhood**
- **CAMA Residential, Commercial, and Condominium**
- **CFSA Collaborative Area**
- **DYRS Facility**
- **Metro Line**
- **Metro Station**
- **Police Station**
- **Public School Attendance Zone**
- **Recreation Area**
- **Recreation Facility**
- **Red Light Camera**
- **Street Tree**
- **Street Centerline**



New Data From Emergency Data Committee

- **FCC Towers**
 - AM
 - FM
 - Cell
 - TV
 - Microwave
 - etc...
- **Underground Storage Tank**
- **Above Ground Storage Tank**



Current DC GIS Data Update

- **Address Point**
- **Charter School**
- **Zoning**
- **Overlay Zoning**
- **Planned Unit Development**
- **Public School**
- **EPA data**
 - **Superfund**
 - **Brownfield**
 - **Hazardous Waste**
 - **etc...**

» **December 2005 publication**



DC GIS Training Status Report

Tim Abdella
GeoSpatial Education Director



Reportable Topics

- Custom Course Development
- CWD GIS Course Marketing Flyer
- DC GIS Education e-Newsletter
- Training Needs Questionnaire
- Internal Education & Support



Status of Course Material

- Introduction to DC GIS Using ArcGIS 1
 - Lectures 85% complete
 - Exercises 60% complete
 - 310 pages
- DC GIS Tools for Professional Analysts
 - Lectures 60% complete
 - Exercises 40% complete
 - 140 pages
- Managers Overview of DC GIS Services and Applications
 - Lectures 90% Complete
 - Exercises 70% Complete
 - 160 pages



CWD Classes

Introduction to DC GIS using ArcGIS I

Customized introduction to ESRI ArcGIS 1 focused on DC data and applications, the foundation for becoming a successful ArcView®, ArcEditor™, or ArcInfo™ user. This course covers fundamental GIS concepts as well as how to query a GIS database, manipulate tabular data, edit spatial and attribute data, and present data clearly and efficiently using maps and charts.

Offered:

- » January 30-31
- » February 27-18
- » May 25-26
- » June 21-22
- » July 27-28





CWD Classes

DC GIS Tools for Professional Analysts

The course is a boot camp for professional GIS analysts focuses specifically on how the District of Columbia applies the technology. Students are expected to be proficient in ArcGIS software.

- Offered:**
- » December 9
 - » January 10
 - » February 1
 - » May 16
 - » June 7
 - » July 18
 - » August 15
 - » September 12





CWD Classes

Managers Overview of DC GIS Services and Applications

Aimed at DC government managers who want a better understanding how the programs they supervise can utilize Geographic Information Systems. The course content is geared to non-technical implementers, and is designed to help facilitate the efficient use of Geospatial Technology where appropriate.

Offered:

November 30

December 8

January 26

February 16

May 4

June 28

July 20

September 14





CWD Class Registration

Course Registration:

- Select Classes
- Get Supervisor Approval
- Complete the Standard Training Authorization Form 1
- Send to Training Coordinator for his/her review and signature
- Confirmation of enrollment in the course will be emailed to you
- Notify CWD if you can not attend within 3 days of the class
- For more information about CWD, call (202) 727-1523
- All Information will be on DC GIS Training Website

<http://www.dcop.in.dc.gov>

Click on:

Training and Development





CWD GIS Course Marketing Flyer

- CWD Course Flyer
 - Single page
 - GIS Courses with descriptions
 - Schedules
 - How to register
 - Use to keep enrollment up

- Available On-Line

[http://www.dcgis.in.dc.gov/
CWD_GIS_Courses_2006.pdf](http://www.dcgis.in.dc.gov/CWD_GIS_Courses_2006.pdf)

Mentioned in October's DC GIS
Education Newsletter

CWD GIS Course Offerings 2006																					
Introduction to DC GIS using ArcGIS I 2 - Day																					
<p>Description: This customized introduction to ESRI ArcGIS 1, focused on DC data and applications, is the foundation for becoming a successful ArcView®, ArcEditor™, or ArcInfo™ user. The course covers fundamental GIS concepts as well as how to query a GIS database, manipulate tabular data, edit spatial and attribute data and present data clearly and efficiently using maps and charts.</p> <p>Prerequisites: Participants should know how to use windows software. The most successful students are those who have already a basic understanding of relational database management software such as Microsoft Access. This course provides the fundamental ArcGIS knowledge and experience needed to enroll in Introduction to ArcGIS II.</p> <p>Audience: This course is for those who are new to ArcGIS and new to GIS in general.</p>	<table border="1"> <thead> <tr> <th colspan="2">Dates</th> </tr> </thead> <tbody> <tr> <td>October</td> <td>26-27</td> </tr> <tr> <td>November</td> <td>9-10</td> </tr> <tr> <td>January</td> <td>30-31</td> </tr> <tr> <td>February</td> <td>27-28</td> </tr> <tr> <td>May</td> <td>25-26</td> </tr> <tr> <td>June</td> <td>21-22</td> </tr> <tr> <td>July</td> <td>27-28</td> </tr> </tbody> </table>	Dates		October	26-27	November	9-10	January	30-31	February	27-28	May	25-26	June	21-22	July	27-28				
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DC GIS Education Newsletter

- Monthly Newsletter
 - September 27th 2005
 - October 27th 2005
- Sent to over 400 recipients
 - Looking for more recipients
 - Add / Remove from website
- Available on-line
 - Barney to Demonstrate

OFFICE OF THE CHIEF TECHNOLOGY OFFICER

DC GIS Education Newsletter

GIS Classes Offered Through CWD Begins

The first series of GIS classes have successfully completed!

Introduction to DC GIS using ArcGIS 1
This customized introduction to ESRI ArcGIS 1, focused on DC data and applications, is the foundation for becoming a successful ArcView®, ArcEditor™, or ArcInfo™ user. The course covers fundamental GIS concepts as well as how to query a GIS database, manipulate tabular data, edit spatial and attribute data and present data clearly and efficiently using maps and charts.

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The CWD GIS Course Offerings 2006 Flyer is available at: http://www.dcgis.in.dc.gov/CWD_GIS_Courses_2006.pdf

CWD Class Registration Process

To register for classes, complete the [Standard Training Authorization Form 1](#) and send it to your Agency Training Coordinator for approval. Confirmation of enrollment in the course will be emailed to you and your Training Coordinator no later than five business days prior to the scheduled start date. Those who are not enrolled will not be contacted.

To complete [Standard Training Authorization Form 1](#) fill out the following numbered items: 1, SSN-last four, 2, 3, 4, 7, 8, 9, 10, 11, 17, 18 & 19. If you have questions or need assistance, please contact CWD at 202-727-1523

GIS Managers Training Needs Survey

The DC GIS Managers Training Needs Survey suggested by the GIS Steering Committee on Thursday, September 15, 2005 was developed and distributed last month. It will help us to understand what your GIS needs are and facilitate the format of our training classes to satisfy those needs. The Survey was sent to approximately 70 individuals, with a 10% return rate. It is not too late to return your completed surveys! If you would like to complete a survey for your agency or program, please e-mail tim.abdella@dc.gov to get a copy of the questionnaire.

To remove your name from our mailing list, please [click here](#).
Questions or comments? E-mail us at tim.abdella@dc.gov or call 202-727-4946

Volume 1: Issue 2
October 27, 2005

DC GIS is working with the Center for Workforce Development

Upcoming Classes:

11/9	Intro DC GIS
11/30	Managers
12/8	Managers
12/9	Professional
1/10	Professional

Important Links:

[Training Web Site](#)
[CWD Class Registration](#)
[DC GIS Intranet](#)
[DC GIS Internet](#)
[ESRI Virtual Campus](#)
[Citrix Applications](#)

Highlighted Events:

[Annual Applied Geography Conference 2005](#)
[ESRIMUG Conference](#)
[NAHDO 20th Annual GIS in Homeland Security](#)
[ESRI Federal Conference](#)
[ESRI Developer Summit](#)

ArcGIS Map Templates Available for use in [Citrix Environment](#)

Barney Krucorn,
OCTO GIS Director

To remove your name from our mailing list, please [click here](#).
Questions or comments? E-mail us at tim.abdella@dc.gov or call 202-727-4946

CHIEF TECHNOLOGY OFFICER

Education Newsletter

Volume 1: Issue 1
September 27, 2005

DC GIS is working with the Center for Workforce Development

Upcoming Classes:

10/10	Intro ArcGIS 2
10/18	Managers
10/20	Professional
10/26	Intro DC GIS
11/09	Intro DC GIS

Important Links:

[Training Web Site](#)
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[ESRI Virtual Campus](#)
[Citrix Applications](#)

High Lighted Events:

[VAGIS 2005](#)
[WEFTEC 2005](#)
[Annual Applied Geography Conference 2005](#)
[ESRIMUG Conference](#)
[Penn GIS Conference 2005](#)
[Municipal Utilities Seminar](#)

Tim Abdella Joins DC GIS as GeoSpatial Education Director

DC GIS Education geospatial professional training activities, and top stories will be in Training section, wish to receive @dc.gov.

will be offering 06. DC GIS, the rked together to ily to all DC Per- nual Class Cata- are:

Applications

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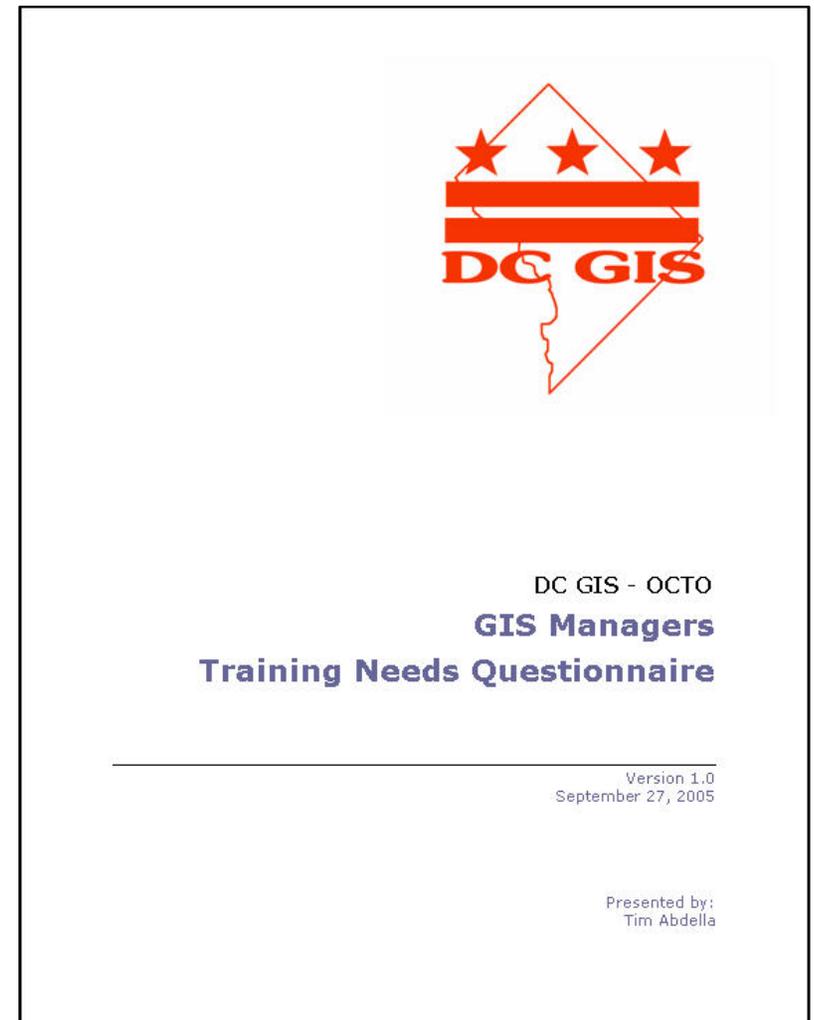
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Training Needs Questionnaire

- Suggested by the Steering Committee
- Developed by DC GIS
- Distributed to 70 individuals
- Response from only 10
- Thank you to the respondents

Answers were helpful and will be used for future direction





Internal Education and Support

- DC GIS Tools
 - Adaptation of OP Tools
 - Integrated MAR Web services
 - Map Templates
 - Pictometry EFS Launch
- DC GIS INTRA DB
 - Performance tuning
- Data
 - Cartographic raster base map development
 - Projected Imagery to MSP_NAD_83
 - Model Builder based feature level generalization

Demonstration



Q&A

Timothy L Abdella

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Thank you



Updated DC GIS Data

- **Address Point**
- **Assessment Neighborhood**
- **Assessment Sub-Neighborhood**
- **CAMA Residential, Commercial, and Condominium**
- **CFSA Collaborative Area**
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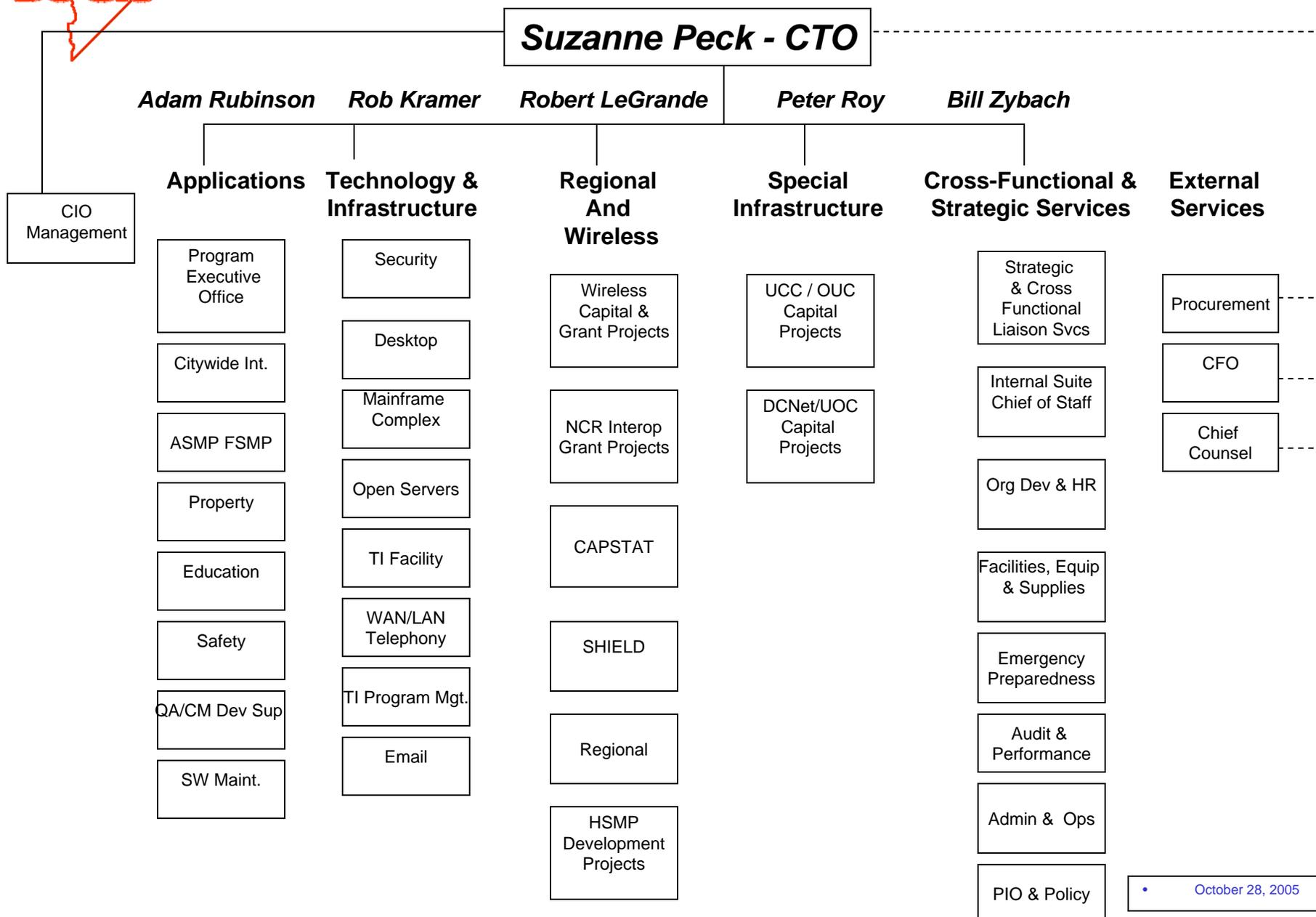


DCGIS.IN.DC.GOV

- Why this URL matters to you
 - <http://dcgis.in.dc.gov>



Realigned Office of the Chief Technology Officer





**Applications
(Adam Rubinson)**

**Chief Architect
(Tom Mowbray)**

**Program Executive Office
[SDLC Cross-Functional]
(Nina Sober)**

- Project Controls B1A
- Account Management B1B
- Project Managers B1C
- Project Initiation B1D
- Enterprise Licensing B1E
- Program Financial Management B1F

**Development/
Integration
(Jamey Harvey)**

- SMP Oversight B2G
- PSMP B4A
- EdSMP B5A
- SSMP B6A
- CSMP B2I
- TSMP B2J
- Citywide Integration B2A
- Analysts Architecture Portfolio B2H
- Business Int. Data Warehouse B2B
- Web Services B2C
- Document Management B2D
- Portal Frameworks B2E

**ERP/Large Syst.
Development
(Sandy Lazar)**

- ASMP Projects B3A
- Payroll B3B
- DCPS PASS B3C
- FSMP B3E
- SOAR Upgrade B3F
- Agency Finance Systems B3G

**App. Infrastructure/
QA/CM
(Mahamudul Huda)**

- QA/Testing B7A
- Production Release Handoff B7B
- Configuration Management B7C
- Source Control B7F
- Testing Tools B7G
- Change Control B7H

**App./Software
Maintenance
(Vic Grimes)**

- Application Maintenance B8A
- App Tier II Help Desk B8B
- Web/Portal Maintenance B8C
- Print & Web Editorial B8D
- Application Trouble Tickets Problem Reports B8E
- SMP Maintenance B8F
- GIS B8G
- EAI B8H
- Application & Database Administration B8I

District Department of Transportation

Operational Support and Applied
Technology

GIS Division

Street Spatial Database (SSD)

Street Spatial Database

- Core Data Model of TEAMS
- Emphasizes Location Referencing System
- Based on ESRI's GeoDatabase Technology
- Provide data link to other TEAMS business data – the key is location referencing
- Implement Phased Approach

Street Spatial Database

PHASE I

Street Spatial Database

- Task I: High Level Design
- Task II: Prototype Testing
- Task III: Detailed Design
- Task IV: Testing and Data Loading
- Task V: Implementation

Street Spatial Database

- Task I: High Level Design
 - Complete Requirement Matrix
 - Develop Data Model
 - Document High Level Design
 - Estimated Time: 4 weeks
 - Status: 100% completed
 - Done In-House

Street Spatial Database

- Task II: Prototype Testing
 - Objective: Proof Concept in High Level Design
 - Collect Pilot Data
 - Create Database Scripts from High Level Design
 - Build Topology
 - Build Some Use Case (Process Flow for geometry changes and attribute changes)
 - Test Use Case
 - Document Prototype Testing Results

Street Spatial Database

- **Task III: Detailed Design**
 - Objective: Develop Detailed Database Design and Create Street Spatial Database
 - Develop Detailed Design Diagram and UML Schema Follow UNETRANS guideline
 - Include All business data from SIS Database
 - Create Data Loading Scripts and Procedures
 - Create Data Update Procedures (Triggers and Stored Procedures)
 - Document Detailed Design Results
 - Status : 100% completed

Street Spatial Database

- Task IV: Testing and Data Loading
 - System Testing
 - Migrate Existing Spatial Data & Some SIS Data
 - Develop Data Updating and Distribution Plan and Procedures
 - Migrating GIS Mapping Applications (including Web GIS Application)
 - Status : 100% completed

Street Spatial Database

- Task V: Implementation
 - Production Database in service
 - On Going

Street Spatial Database

PHASE II

Street Spatial Database

- Task I: Enhancement of the ArcMap Editing tool
- Task II: Additional Use Case development
- Task III: Metadata Service Development

Street Spatial Database

- Task I : Enhancement of the ArcMap Editing tool
 - Define how to implement rollback or commit procedures
 - Tool Edits are Synchronized with ArcMap Edit Session
 - 100% complete

Street Spatial Database

- Task II : New Use Case Development
 - Add New Use Case to Support Master Address Repository (MAR)
 - Add New Use Case to Support Routing Reference Network (RRN)
 - Add other Use Cases for feature Editing
 - 100% complete

Street Spatial Database

- Task III : Metadata Service Development
 - Populate Metadata Information
 - Develop Metadata Service in ArcIMS
 - 100% complete



Address Ranges Update

Ed Wells

DC Office of the Chief Technology Officer

Fan Zhao

Razavi Application Developers



The Logic of Address Ranges

- Actual ranges must contain the address points
- Theoretical ranges must contain the actual ranges
- Ranges cannot overlap for the same street
- Actual ranges can be 0 – 0 (no addresses)
- Theoretical ranges cannot be 0 – 0, except for unaddressable features such as interstates, alleys, ramps, etc.



Address Points

- MAR (Master Address Repository) points
 - Hand-placed on buildings
- MV (Mobile Video)
 - Based on field observation and tax office address records



Street Centerlines

- Accurate geometry and street names
- Digitized directions correct
- Before this project address ranges properly contained only 90% of the new address points.



Major Steps Actual Ranges

Actual Ranges

- Relate address points, roadway segments and sub-blocks
- Exclude problem points and compute actual ranges
- QC and repair problems

Theoretical Ranges

- Case 1 segments with actual ranges
- Case 2 segments without actual ranges
- QC



QAQC Tests

Test 1: Does every theoretical range contain its actual range?

Test 2: Do any ranges for the same street overlap?



Results

- Every street block has a theoretical range
- Every street segment has an actual range
- Theoretical ranges contain their actual ranges
- Actual ranges contain their address points
- Address points are in sequence within their range
- Remaining work: investigate discrepancies



Current status

- 99% of 132,912 Address Points, fit within actual and theoretical ranges. Under investigation:
 - Out of range (200)
 - New centerlines (200)
 - Assigned to unnamed alley, ramp, drive (100)
 - Parity problem (450)



Questions and Discussion

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Developers
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