

The NYC GIS Utility



GIS: A Key Integrating
Component of IT

INFORMATION technology

Human Beings and Human Society Depend Upon
Information For EVERYTHING They Think and
Do

The Value of and Need For Information Drives The
Creation of New Technology

The Higher Quality The Information The Greater the
Potential For Doing Things Better

technology

- Processing Power
- Telecommunications speed and bandwidth
- Wireless
- Miniaturization
- Web
- RDBMS and other software tools and apps

=====Equals

Information Anytime, Anywhere, Anyhow

Information Hierarchy

- Data (isolated/paper)
- Information (report)
- Information (analysis)
- Intelligence (stovepipe)
- Knowledge (integrated agency)
- Knowledge (integrated enterprise)
- Insight (interpretive)
- Insight (predictive)
- Wisdom (human)

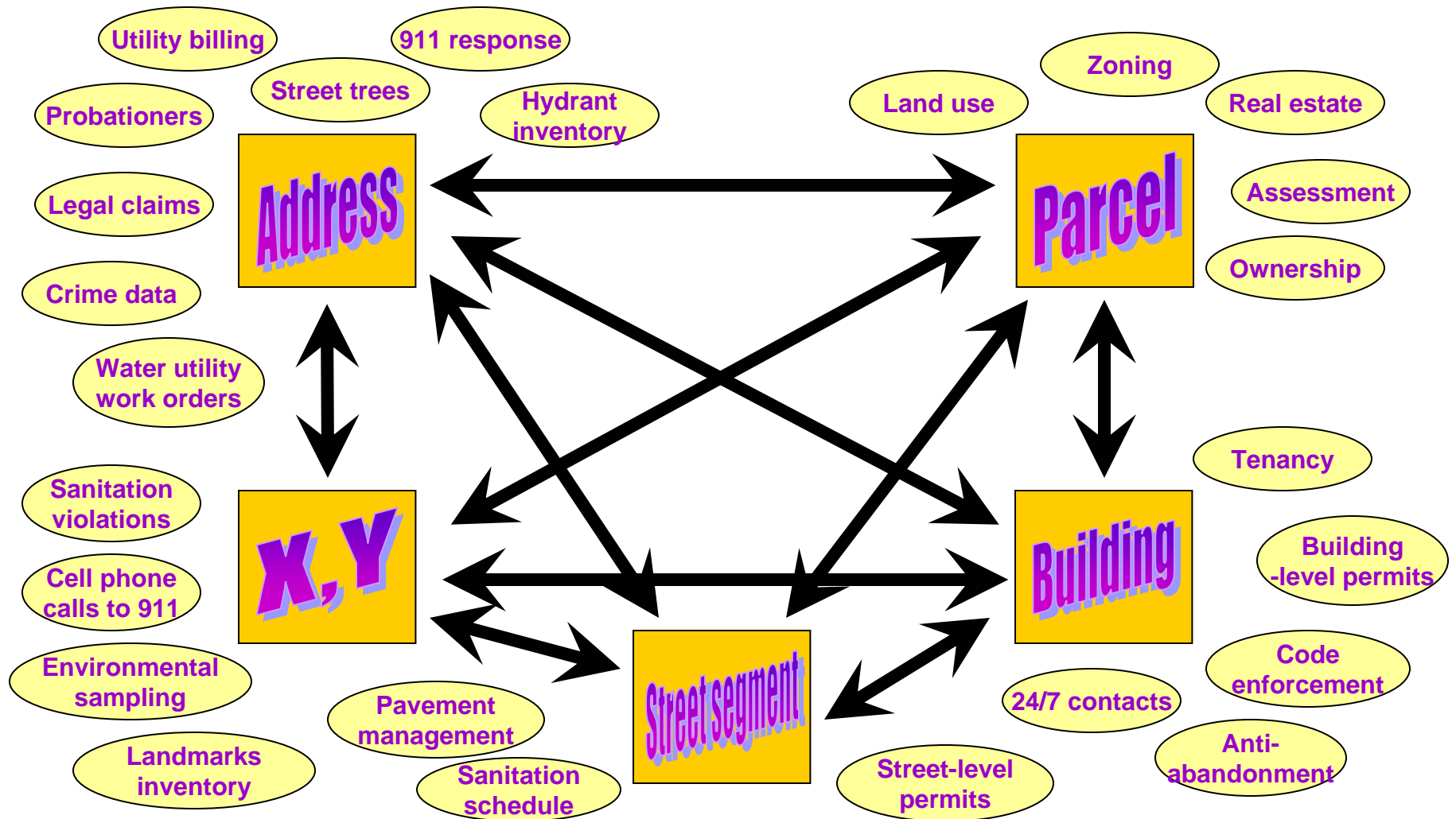
Information Types

- **Who:** Name, ID, Object, Entity, Subject
- **What:** Facts, Figures, Event, Description
- **When:** Time
- **Where:** Address, Parcel, Building #, Coordinate, Street Segment, Street Intersection, Street Segment, Floor
- **Why? How?** explanations

Combinations of Information

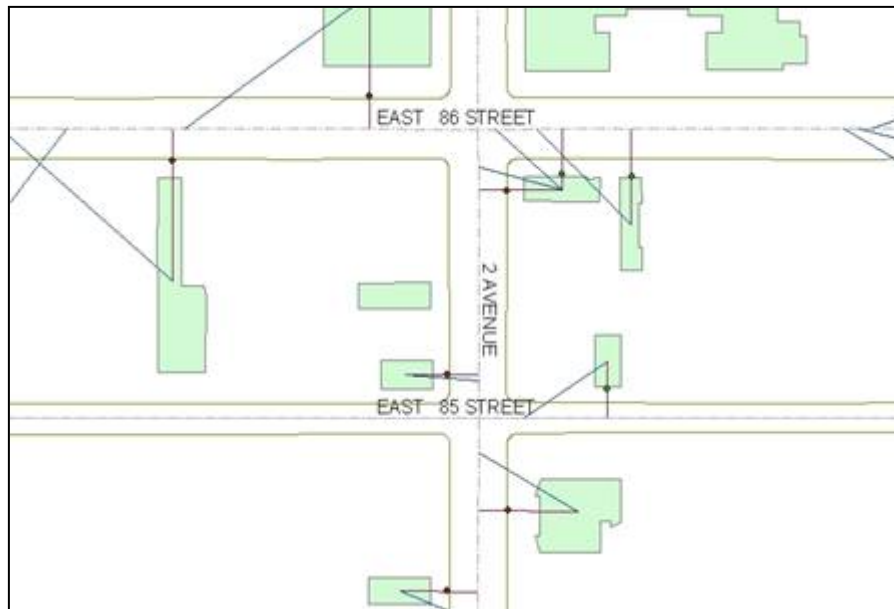
- Enable and encourage collaboration and cooperation
- Solve problems
- Increase efficiency, effectiveness, productivity
- Enable predictive and preventive analysis
- Lead to new solutions and new services
- Results in higher value answers and uses

NYC Geographic Identifiers & Geosupport





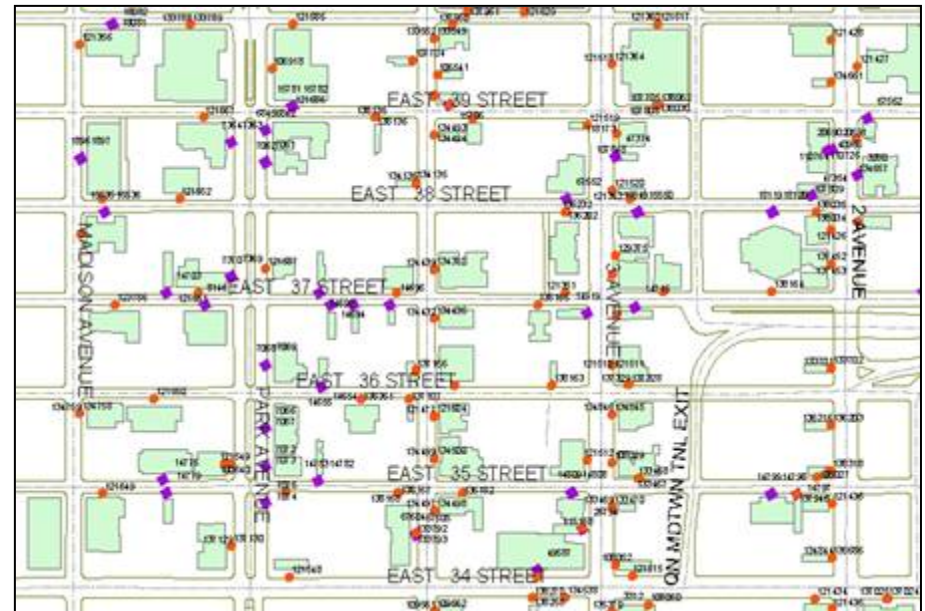
Automated Mapping Application



Sample process for public pay telephones:

- 1) Validate & normalize street address
- 2) Convert from address to building centroid
- 3) Move to curb or building frontage
- 4) Offset by user defined distance

Sample product: Mapping of public pay telephones



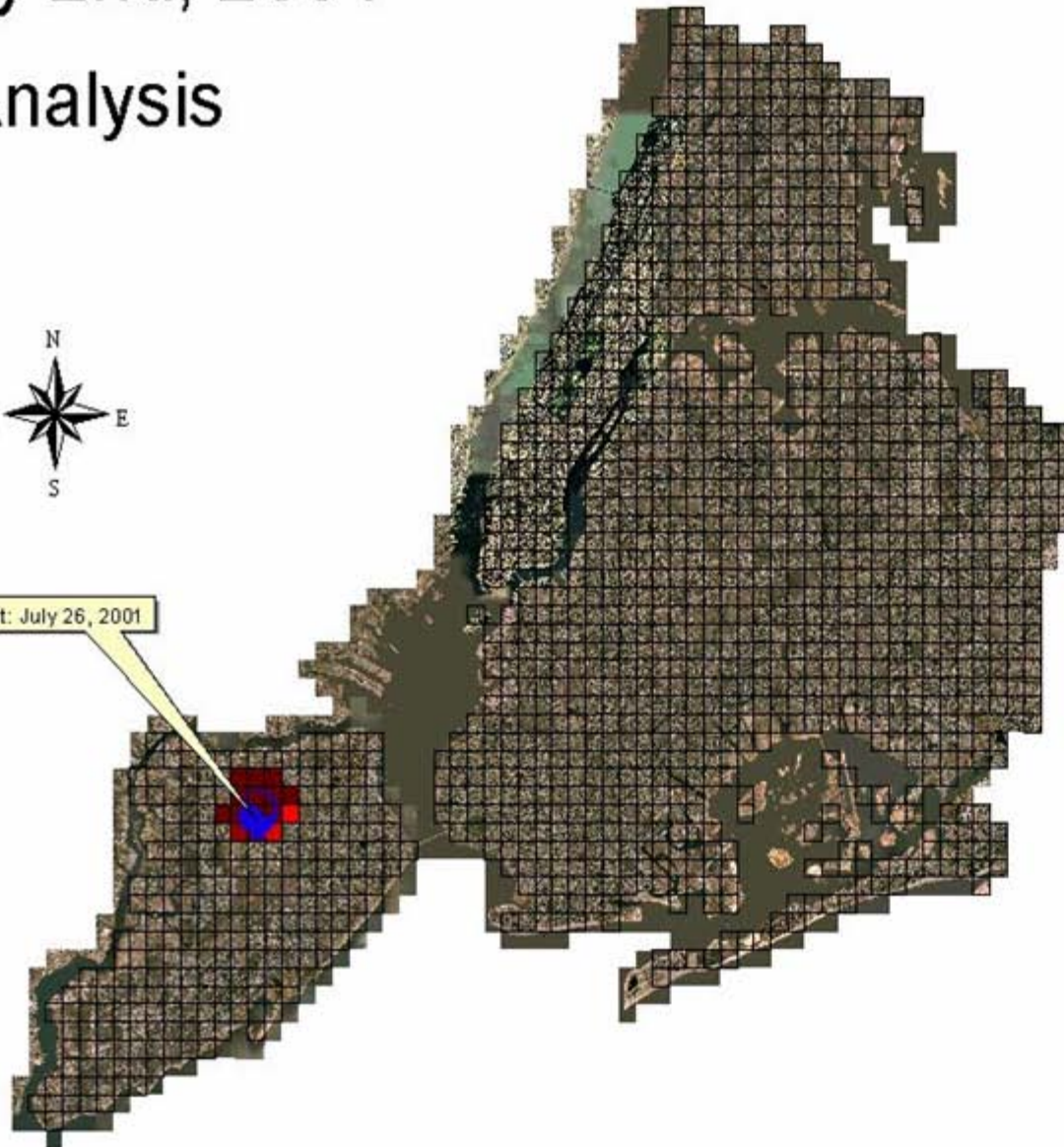
GIS In Action

- With A Critical Mass of Registered Data and Fully Aligned Spatial Indicators, The Applications Keep Coming!

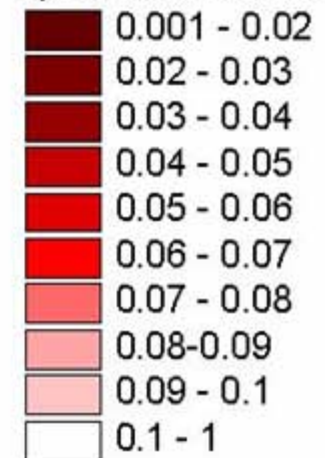
July 2nd, 2001 Analysis



Onset: July 26, 2001



Probability of random
space-time interaction



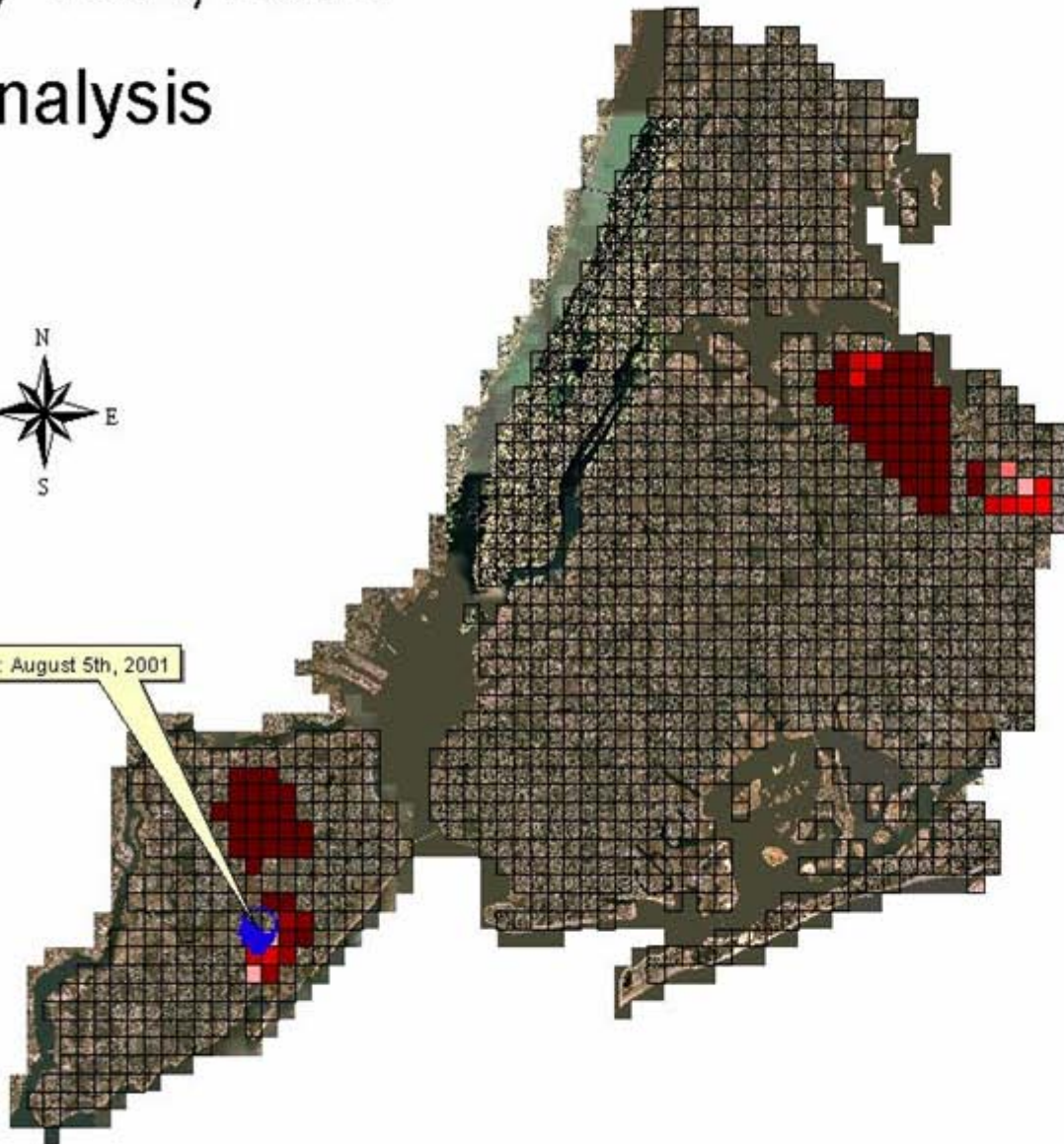
Localized Knox Test Analysis
Buffer 1.5 miles
Temporal Window 21 days
Close in Space 0.25 miles
Close in Time 3 days
25 Birds Threshold
Data Source: NYC DOH and NYCMAP
Analysis: CARSI Lab, Hunter College

5 0 5 10 15 Miles

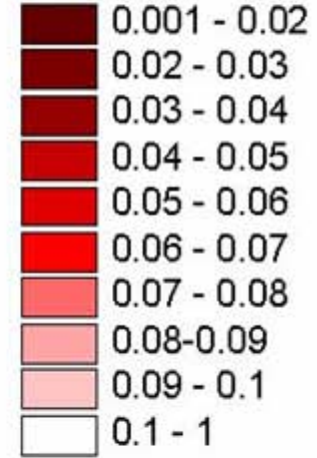
July 19th, 2001 Analysis



Onset: August 5th, 2001



Probability of random space-time interaction



Localized Knox Test Analysis
Buffer 1.5 miles
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Close in Space 0.25 miles
Close in Time 3 days
25 Birds Threshold
Data Source: NYC DOH and NYCMAP
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