Geospatial Systems in Ports
A discussion about data
Daniel Elroi
NorthSouth GIS LLC
A Conversation with Daniel Elroi

- CEO of NorthSouth GIS, Los Angeles
- Geospatial systems integrator in ports
- Built Enterprise GIS systems for
  - Port of Los Angeles
  - Port of Oakland
  - Port of Stockton
  - Port of Tacoma
  - Port of Hueneme
- Also working for Ports of Long Beach, Tampa, San Diego
Ports Want Their Data Like This
Instead of Like This
So That When These Happen
They Can Do This
Instead of This

Photo credit: Nanette Stark, Washington Department of Fish and Wildlife
Geospatial Data is Everywhere in Ports
So How Do Ports Get There?
The Process View

1. Determine & Prioritize Needs
2. Assess Conditions & Create a Plan
3. Build & Enhance the Data
4. Implement Software
5. Train and Promote Adoption

Set the Gears in Motion
The Software View

Image courtesy of fhwa.dot.gov
The People View
The Data View

- Catalog & Assess
- Locate & Index
- Convert & Integrate
- Publish & Use
- Maintain & Disseminate
Catalog and Assess

Explore

sism_storica
http://dx.doi.org/10.17693/292e2a584
Map Service - EPSG WGS 84
View In - ArcGIS, Arctoolbox, Google Earth
Author - Andrea Stoll
Server - http://dx.doi.org/10.17693/292e2a584

Earthquake data from Southern California

60inchimagery
http://dx.doi.org/10.17693/292e2a584
Map Service - EPSG NAD83 / WGS72
View In - ArcGIS, ArcToolbox, Google Earth
Supported Operations - Export File, Generate HTML
Author - mtb@usgs.gov
Published Map - http://dx.doi.org/10.17693/292e2a584

Boating Access
http://dx.doi.org/10.17693/292e2a584
Map Service Layer - EPSG NAD83 / WGS72
Field name: OBJECTID, OBJECT, Sampling, Latitude, Longitude
Shape: Polygon
Unit: degree
Format: geodatabase, sld, xml, shapefile
Server - http://dx.doi.org/10.17693/292e2a584

Maryland Trail Network
http://dx.doi.org/10.17693/292e2a584
Map Service Layer - EPSG NAD83 / Maryland
Server - http://dx.doi.org/10.17693/292e2a584

Penn. Trail Network
http://dx.doi.org/10.17693/292e2a584
Map Service Layer - EPSG NAD83 / Maryland
Description - http://dx.doi.org/10.17693/292e2a584
Server - http://dx.doi.org/10.17693/292e2a584

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Format Category
- 0 (1100)
- 2 (1200)
- 3 (900)
- 4 (100)
- 5 (10)
- 6 (10)
- 7 (900)

Format Type
- GeoTIFF (1100)
- PDF (1200)
- JPG (900)
- JSON (100)
- XML (10)
- KML (10)

Format Keyword
- Layer (900)
- Table (1100)
- Document (200)

Photo by Joseph J. Gerrencher, Jr
Locate and Index
Convert and Integrate
Publish and Use
Update and Disseminate
Where Next?

• Ask:
  – What is the ROI? Do facts support intuition?
  – How can this be financed? Capital vs. Operating exp.
  – How can it be staffed? Managed? Governed?
  – What is the best way to phase this? Best way to ensure staff adoption?
  – How can data quality be ensured and sustained?
Learn More

• Visit http://ports.northsouthgis.com
• E-mail ports@northsouthgis.com
• Call Daniel Elroi at (800) 866-5013 ext. 11