A Practical Approach to GIS in Ports
Company
- NorthSouth GIS LLC
- Founded in 2005
- Headquarters in Los Angeles
- Geospatial Systems Integrator
- An integral member of the Ports industry
- Esri’s leading partner in ports
- Esri Gold Partner since 2010
What We Do For Ports

Strategize

Support

Design

Implement

Needs Assessments
Strategic Plans
Grants, RFPs, Contracts
Implementation Design
System Architecture
Software Implementation
Geodatabase Design
Data Conversion
Systems Integration
COTS Systems
Custom Development
Training and Outreach
Support
Staffing
Strategic Planning

- Port of Houston
- Port of Vancouver
- Port Tampa Bay
- Port of San Diego
Common Themes

• Governance
• IT & Engineering
• Standards
• Education
• Staffing
• Maps and Apps
• Integration

• Leases
• Berths
• Utilities
• Critical Infrastructure
• Vessels
• Documents
Common Approaches

Budget Models

CapEx-heavy Rapid Start  OpEx-reliant Gradual Buildup  Steady-spend Approach

ANNUAL INVESTMENT

YEARS

DATA

SOFTWARE

SERVICES

ANNUAL INVESTMENT

YEARS

SOFTWARE

DATA

SERVICES

SITES

NOMS
Ports

- Port of Los Angeles
- Port of Oakland
- Port of Stockton
- Port of Tacoma
- Port Tampa Bay
- Port of Vancouver
- Port of Long Beach
- Port of San Diego
- Port of Hueneme
- Port of Houston
- Port of Charleston
Los Angeles collaborates internally better because of NSGIS's enterprise approach and system integrations
Oakland runs its 24/7 Security Operations Center with Enesgy™ for Ports
Stockton is ensuring their utility data is accurate by linking GIS to vintage paper and CAD as-builts
Tacoma is managing its real estate better with the NSGIS Land Assets Data Model for Ports
Long Beach uses NSGIS to support its extensive enterprise GIS system and has deployed Enesgy™ for Ports
Port Tampa Bay

Tampa is more resilient to disaster now because of its use of geospatial technologies
San Diego has made significant improvements in asset management and situational awareness with GIS.
Port of Hueneme

- Esri-based Enterprise GIS infrastructure
- Data conversion and field verification
- Enesgy™ for Ports software implementation
- Port-specific GIS map viewer (*PortView*)
- Data assessment and data conversion project
- Training
- Staff augmentation and off-site support
Port of Hueneme

- A regional economic engine
- Contributing to the local economy
- Powering local businesses
Port of Hueneme

- A small but very efficient global trading partner
- Excellent access to the largest economy in the US
- Avoids the pains of working in Los Angeles, Long Beach and Oakland
Port of Hueneme

- Highway access to the Los Angeles Metro and to California's Central Coast
- Rail access to entire United States
- 70NM from LA/Long Beach, 400NM from Oakland
Starting Point

- 1,000s of paper maps and CAD drawings
Data Assessment

- Used GIS to map extents of sources
- Worked with port to prioritize data for conversion
Data Conversion
Data Verification

Select Inspection to Configure

Please select an action to perform:
- Create new inspection
- Update existing inspection
  - Storm Drains
- Delete an existing inspection
  - Storm Drains

Exit  Next
Applications

- Platform-agnostic map viewers
- AIS vessel data
- ArcGIS Online tools: Collector, Survey 1-2-3, Story Map
- Enesgy Events
- Enesgy Documents
- Enesgy Map Feedback
- Enesgy Inspections
- Enesgy Incidents
Applications

- Platform-agnostic map viewers
- AIS vessel data
- ArcGIS Online tools: Collector, Survey 1-2-3, Story Map
- Situation and event planning tool
- Document Geolinker
- Map quality feedback tool
- In-field asset inspection extension
- Incident reporting extension
Geospatial Solutions for Ports
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