Asset Management at the Iowa DOT’s Highway Division

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Highway Division Asset Management Overview

- Iowa DOT GIS Structure
- Adventures with Databases
- Current Asset Data
- Data Capture Issues
- Emerging Data Technology
- Looking towards the future of data management and dissemination
Iowa DOT GIS Structure

- Geospatial Coordinator
- Linear Referencing System (LRS)
- Common geometry storage
- Web Services
- Software
- Office GIS coordinators
- Staff to support manage and maintain
- Governance and standards
Database Central
Software Neutral

Enterprise data is stored in Oracle based spatial storage

Gives offices software flexibility – ArcGIS, GeoMedia, FME, Microstation

Need to follow standards/guidelines to integrate
Painting a Picture with Data

- Enterprise geometry/business data stored in Oracle Spatial
  - Includes the Multi-level Linear Referencing System (LRS)
  - More spatial geometries being incorporated to existing business data in Oracle and often linked to LRS
Painting a Picture with Data

Current Enterprise Asset Management Data (Locations Fixed/Business Information Changes Over Time)

- Pavement Management Data (PMIS)
- Mile Post Locations
- Sign Management System
- Bridges
Sign Inventory Program
Sign Inventory Program
Painting a Picture with Data

Future Enterprise Asset Management Data

- Culverts, Guardrail, Digital Signs, Lighting, Barriers, Fence, Drains, Paint, Crossovers, etc.
Overcoming Barriers

How to nail down the location? (signs at intersections, culverts with multiple entry points, etc.)

Staffing issues (Field and Support)

Data capture and maintenance (workflow changes)
Emerging Technologies

- Phones – Blackberries, Android, windows based
- Tablet PCs
- Video Log / Aerial Imagery
- Mobile LiDAR
- Software
How to Make the Data Useful?

- Highway GIS Portal – Web-based
- GIS Analysis
- Data Warehouses
- Field Decision Making
- Management Decision Making

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GIS for Asset Management Group (GSAM)

- Multi-state, Multi-jurisdiction group of folks sharing information about Asset Management
- LinkedIn page
- SharePoint site – Discussion board, code snippets, etc.
- Quarterly Webinar – Sharing successes, technologies, etc.
Questions??
Thank you.

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