Linear Referencing Systems
- The Final Frontier

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Overview

- Background
- Business Needs
- Asset Geometry
- Facilitated Discussion
Background

- Mobile Data Collection Project
- Pavement Management System Project
- Functionality gap within Esri’s Roads and Highways
Business Needs:

- Need to tie additional ADOT assets to the LRS
- Promote the ability to reference features along the LRS
- Single source of truth for all ADOT GIS assets
- Better manage GIS assets

Integration Considerations:

- Business need vs. business rules
- Data Model
- Data Governance and Management
- Data Sources: Internal vs. External
Point Assets

- Infrastructure Assets
  - Structures and NBI
  - Sign Inventory
  - Variable Message Signs
- To Snap or Not to Snap?
Linear Assets

- Infrastructure Assets
  - Striping
  - Guardrails
  - Sound Walls
- Expanded database
  - New linear features?
Polygon Assets

- LRS Enabled Polygons
  - Right-of-Way Areas
    - Project based / Route Based / Parcels
  - Lane polygons (Condition, Area)
    - One to many relationship?
    - How to define the lane (extent / type / name)?
Future Steps

- Future RHUG Discussion Topic
- Organizational buy in
- Develop business rules
- Identify work arounds
- Bring recommendations for enhancements to Esri
Facilitated Discussion

1. How does your agency support this functionality now?
2. What workflows or tools can be optimized to support this function?
3. How would you want polygon events to behave?
Questions?
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