Esri Roads and Highways

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Esri Roads and Highways Solution Overview

**Desktop**
- LRS Network editing
- LRS management tools
- Geoprocessing tools
- Internationalized

**Enterprise**
- LRS web services
- Developer API samples
- Portal security and identity

**Web Apps**
- Event Editor
  - Web based Event editing
  - Address Management
  - Roadway Reporter
  - Mileage reports
  - Road Log reports

**Community**
- GeoNet
- GitHub
- Esri Support Services
  - Full support for solution
  - Log a support ticket on MyEsri

- Bookmarks and saving Web Maps new in Event Editor for version 10.5.1
Building Blocks of a Linear Referencing System (LRS)

**Network**
A collection of routes, measured to a specific LRM:
- Milepost
- Milepoint
- State Routes

**Centerline**
Geometry and location of the routes

**Event**
Stores characteristics, incidents, and assets:
- Access Control
- Speed Limit
- Number of Lanes
- Surface Type

**Calibration Point**
Defines the measure for a specific location on a route
Roads and Highways Desktop
LRS Management and Route Editing
LRS Route Editing Tools

- Create
- Retire
- Extend
- Realign
- Reassign - Split
- Reassign - Merge
- Reverse
- Cartorealign
Event Editor
Event Editing Web Application
Event Editor
Take advantage of enterprise geodatabase versioned editing directly in your web browser

Browser Experience

Selection
- Select By:
  - Route
  - Attribute
  - Geometry
  - Proximity
- View Results:
  - Single Layer
  - Attribute Sets

Editing
- Line Events
- Point Events
- Event Attributes
- Attribute Set Results

Quality Control
- Gaps
- Overlaps
- Invalid Measures
- Data Reviewer
- Batch Checks
Event Location Model
Flexibility in event location referencing

Route and Measure

Referent and Offset

Stationing

Co-ordinates and Offset
Roads and Highways

Demo
Event Behaviors
After route edits, measure behavior rules can be applied to events automatically.

Before Editing
- Stay Put
  - Preserves the geographic location. Measures may change.

Stay Put
- From Measure | To Measure
  - 0 | 10
- From Measure | To Measure
  - 5 | 15

Retire
- Preserves the geographic location and measures. Event gets retired.

Retire
- From Measure | To Measure
  - 0 | 15
- Event Retired

Move
- Preserves the measures. Geographic location may change.

Move
- From Measure | To Measure
  - 0 | 10
  - 10 | 15
Roads and Highways

Demo
Geoprocessing Tools

Toolbox
- Append Events
- Calculate Route Concurrency
- Convert M-value Units Of Measure
- Convert Table to CSV File
- Detect Gaps For Linear Events
- Detect Measures Out Of Range
- Detect Non-monotonic Routes
- Detect Overlaps For Linear Events
- Generate Events
- Generate Routes
- **Overlay Route Events**
- Relocate Events
- Translate Events From LRM To LRM
- Update Calibration Points
- Update Intersection Points

Usage

Input

Output

Tool
Event Editor

Demo
Attribute Sets
Collection of linear event attribute fields that can be edited as a logical group
Event Editor
Demo
Event Quality Checks
Checks to detect gaps, overlaps, and invalid measures within Event Editor
Roads and Highways Server
Linear Referencing capability for ArcGIS Enterprise

Capabilities

- Event editing
- Coordinate to measures
- Measure to coordinate
- Query attribute sets
- Measure translation
- Measure updates for external systems
- Check events for gaps, overlaps and invalid measures

ArcGIS Enterprise

- Mapping
- Query
- Geoprocessing
- Enterprise security
- Scalability
- Identity

Roads and Highways Server Features

- Integrated with:
  - ArcGIS Data Reviewer
  - ArcGIS Workflow Manager
Roads and Highways Server REST API
Developer Solutions and Demo
Roadway Reporter

Reporting web application
Roadway Reporter
Reporting available across the enterprise from a web application

**Mileage Report**
- Mileages for routes and events

**Segment Report**
- Dynamically segment event layers into one record set

**Road Log Report**
- Logging events that occur in measure order when traversing a route
Address Management
Managing address information using Roads and Highways

Address Management in your browser

Editing
• Add/Edit Block Ranges
• Add/Edit Site Address Points
• Add Master Street Names

Quality Control
• Fishbone Diagrams
• Data Reviewer Batch Checks
Community

Resources
- HPMS Geoprocessing Tools https://goo.gl/tVkjsB
- Sample Web Application https://goo.gl/YGXczN
- GeoNet (transportation) https://goo.gl/2Doj2f

Data and Data Models
- Sample Data https://goo.gl/t8Dko2
- Roadway Inventory Data Model https://goo.gl/Dbb8qE

GitHub
- Address Management https://goo.gl/SMFWKT
- Web App Builder sample widget https://goo.gl/bJrRb

Esri Support Services
- Fully supported solution and extension - Desktop, Enterprise Server, and Web Apps - Domestic and Premium Support
Esri Roads and Highways Solution Roadmap*

10.5.1
June ‘17

- Event Editor
  - Bookmarks
  - Save web maps
  - New editing configurations
  - Support via MyEsri

10.6
Q4 ‘17

- Event Editor
  - Share web maps
  - Change symbology
  - Edit related data
  - Cover behavior rule
  - Gap Detection

Next
Q4 ’18

- Desktop
  - ArcGIS Pro Beta

Product releases, dates, and availability are estimates and subject to change.
Thank you for attending

Questions?
¿Preguntas?
الأسئلة؟
有问题吗？
Vragen?
Des questions?
Fragen?
प्रश्न?
Le domande?
質問ですか？
Pytania?
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