Migrating your Data to the new Location Referencing Information Model

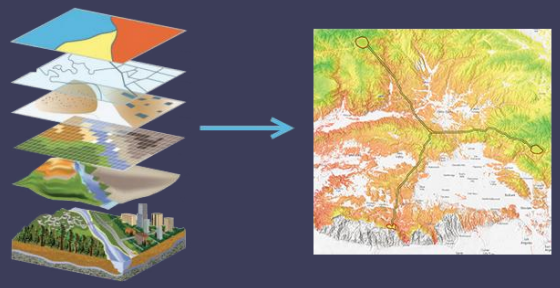
ArcGIS Pipeline Referencing

Nathan Easley

Anjali Bhangay

Pipeline Referencing Overview

Information Model



- Routes
- Events
- Intersections

Pipeline Referencing Overview

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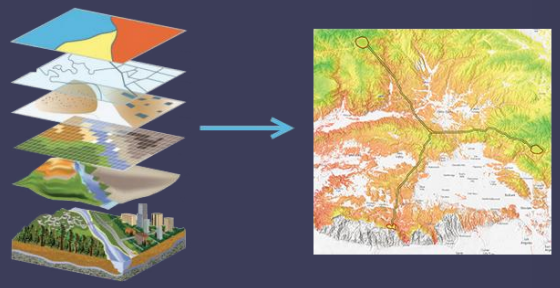

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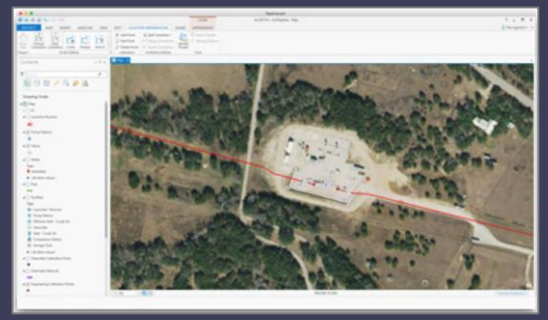
ArcGIS Pro



- LRS network editing
- LRS management
- Geoprocessing

Pipeline Referencing Overview

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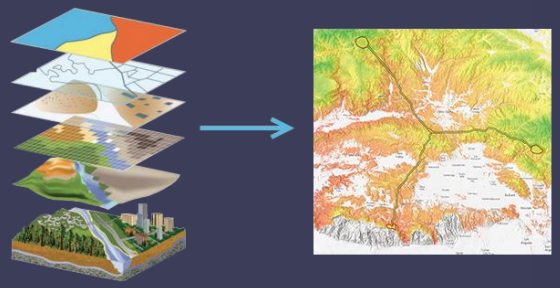

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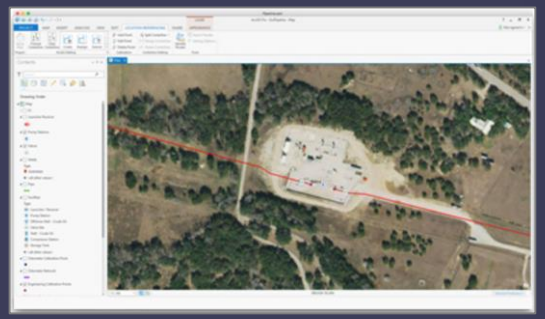

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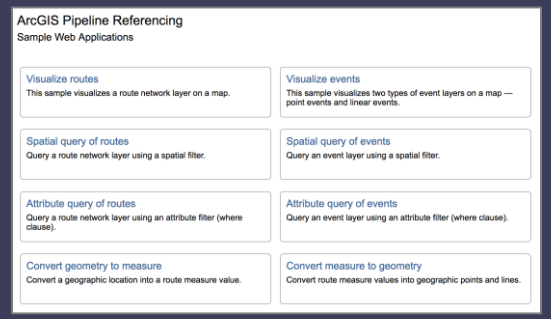
ArcGIS Enterprise



- LRS web services
- Developer API samples

Pipeline Referencing Overview

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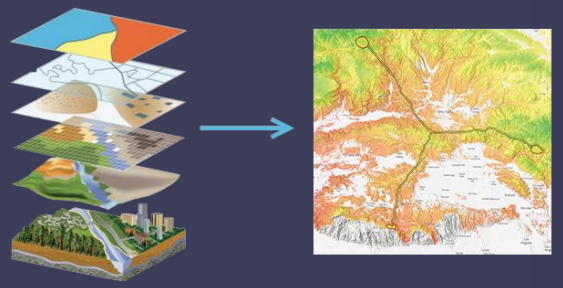

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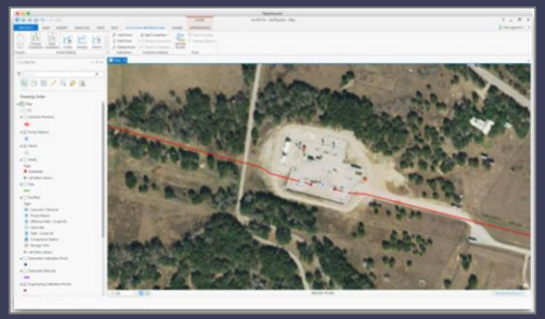

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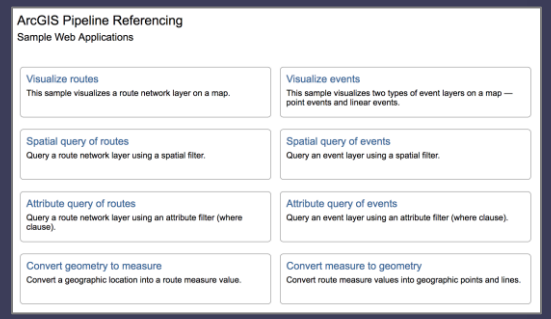
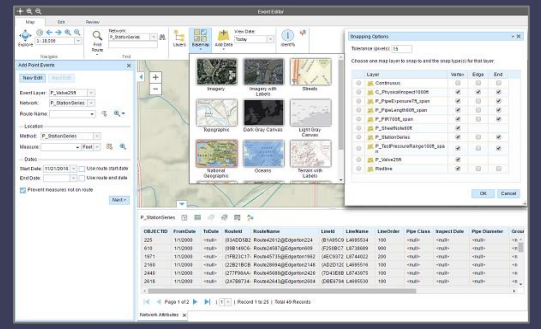


- LRS web services
- Developer API samples

Web



- Event editing
- Event query
- Event QC

Information Model

Information Model

Schema for route centerline management

Centerline

Polyline FC,
stores shape and geometry

Information Model

Schema for route centerline management

Route(s) / Network

Polyline FC
Measure enabled

Centerline

Polyline FC,
stores shape and geometry

Information Model

Schema for route centerline management

Point FC,
stores Measure values

Polyline FC
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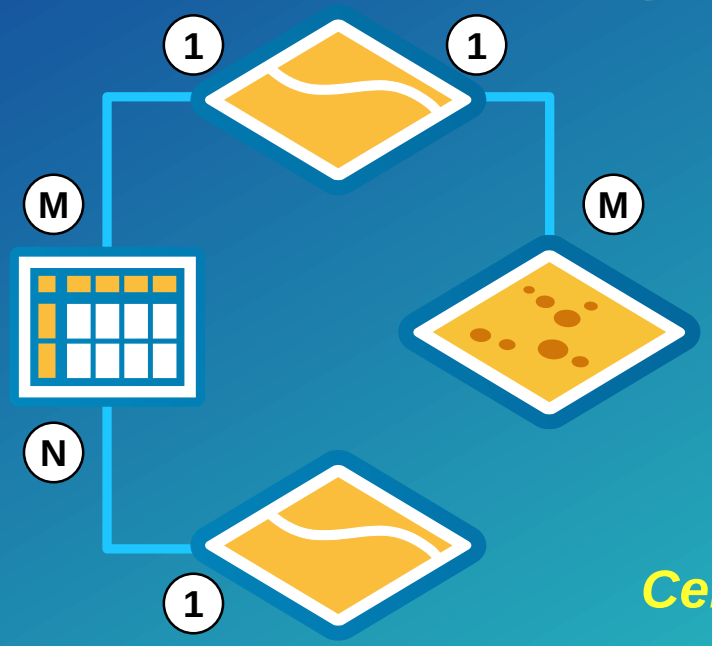
Information Model

Schema for route centerline management

Routes (Network)

Route features

Separate feature class for each LRM



Centerline Sequence

relationship between Centerline and Route

Calibration Points

Point feature class that stores route measures

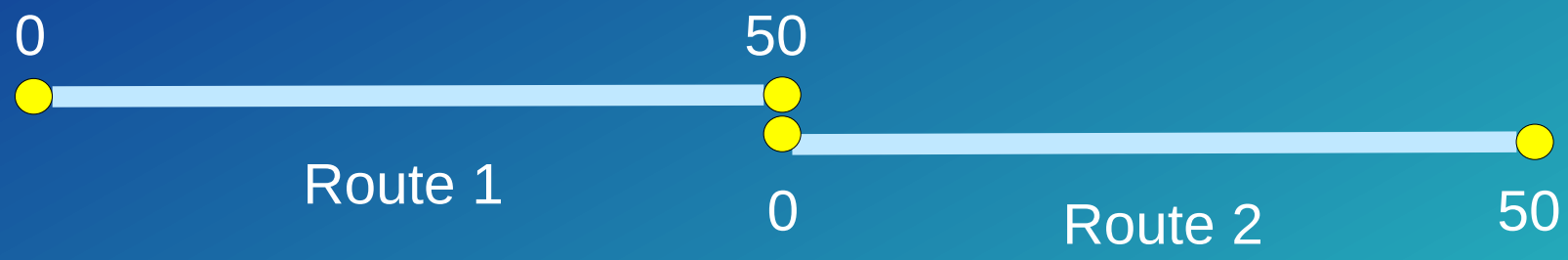
Centerline

Line feature class that stores route geometry

…with support for Engineering Stationing

Types of Network

1- LRS Network



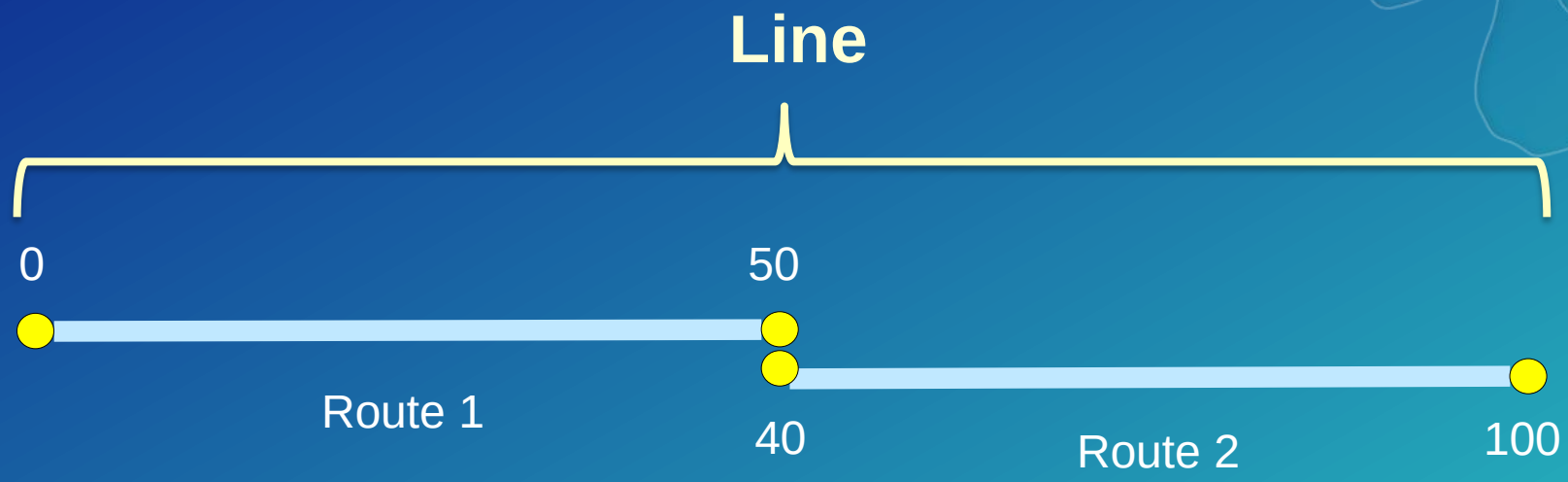
Calibration Point

Routes

LRS – Linear Referencing System

Types of Network

2- LRS Line Network



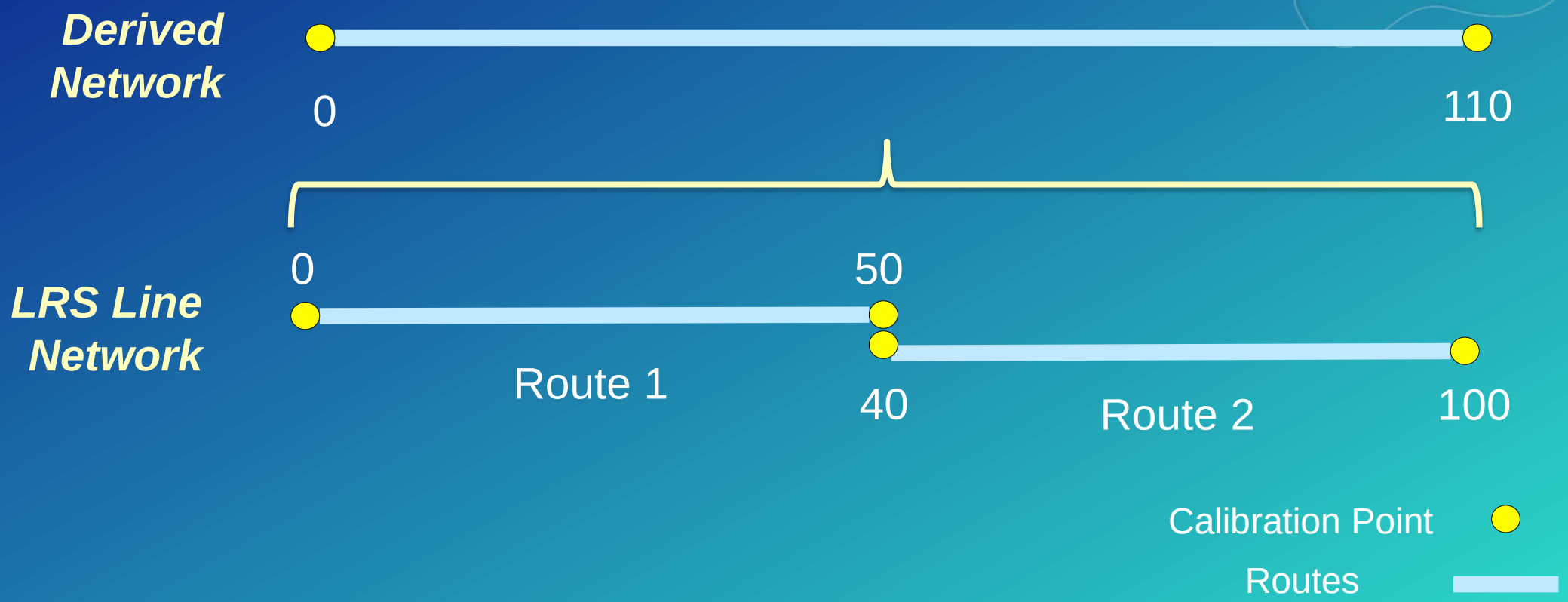
Route ID	Route Name	Line Order	Line ID	Line Name
{1838BE01-0BC9-4C58-9829-0F1D77717DCB}	Route 1	100	{C043CAF0-2BF7-4598-8AC8-B382647AD490}	Line A
{26710A05-C499-42C1-BB73-D3A8D402B109}	Route 2	200	{C043CAF0-2BF7-4598-8AC8-B382647AD490}	Line A

Calibration Point

Routes

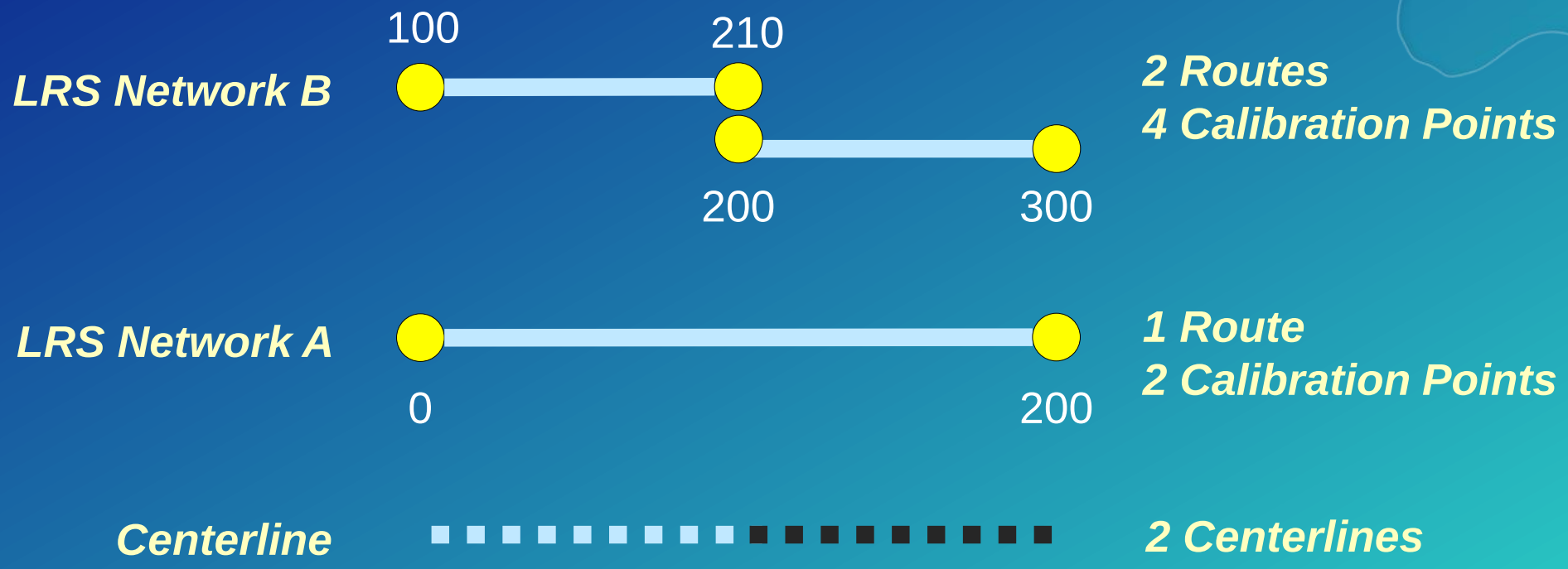
Types of Network

3 - Derived Network



Support for Multiple Linear Referencing Methods

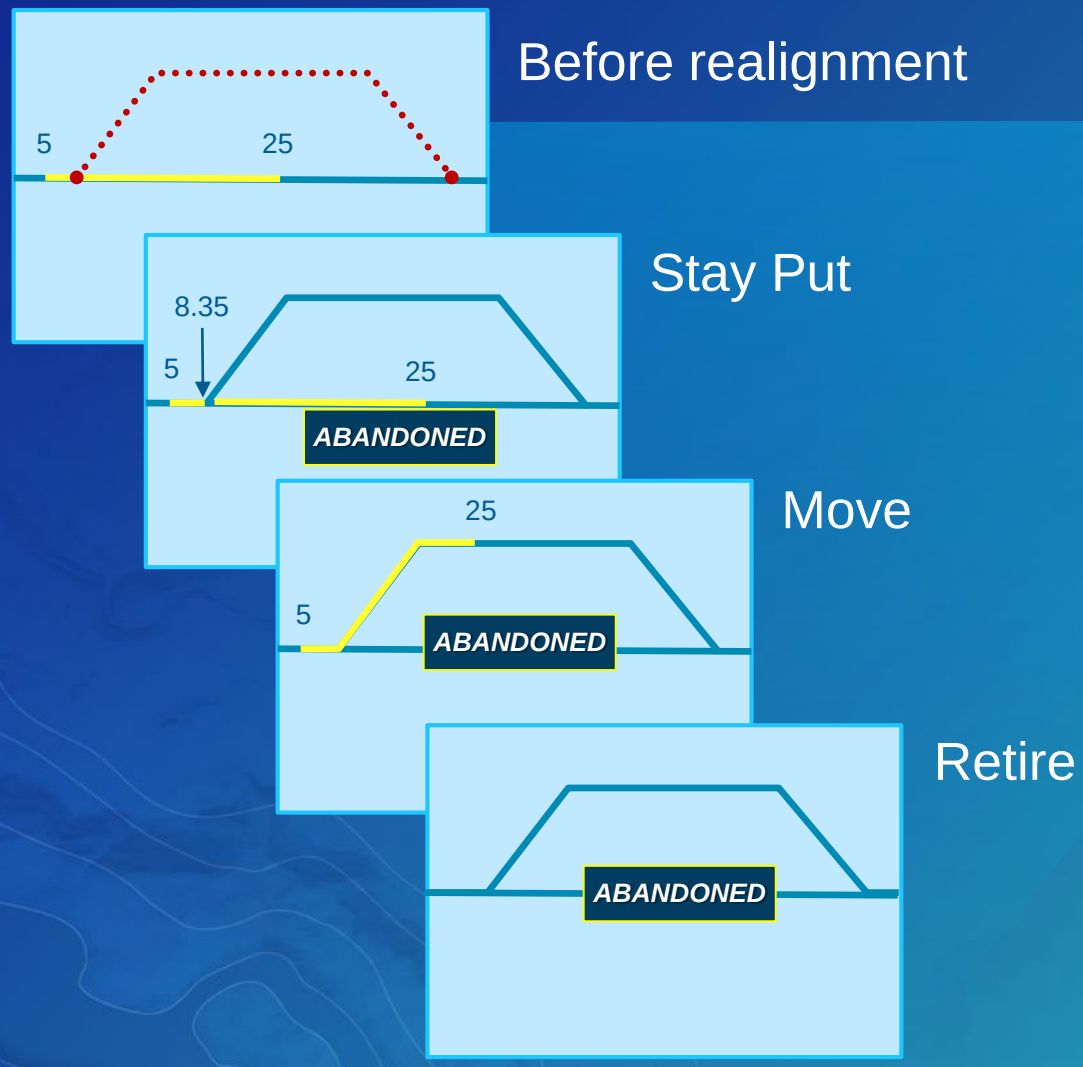
Support for Multiple Linear Referencing Methods

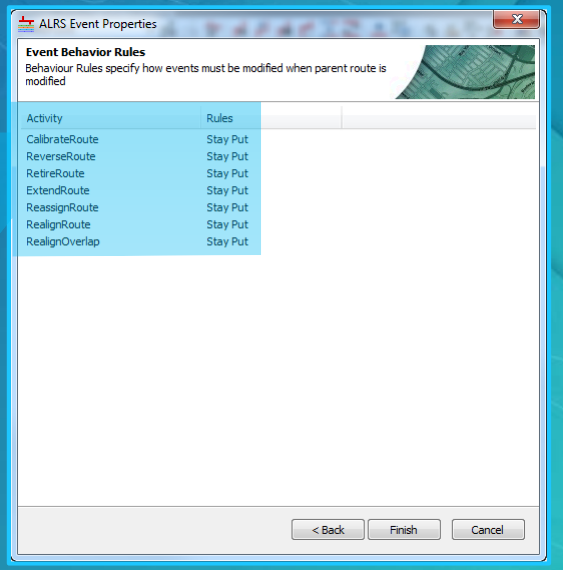


Event Location Methods

- Route and measure
- Stationing
- Referent and offset
  - Intersections
  - Events
  - Features
- Coordinates and offset

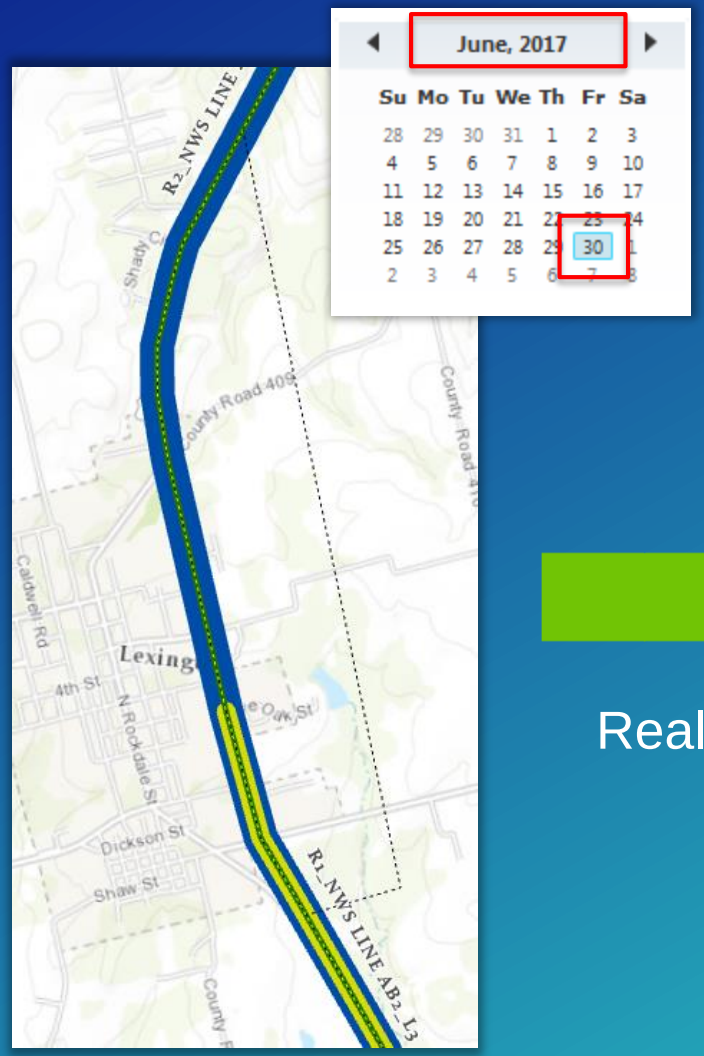
Event Measure Behaviors





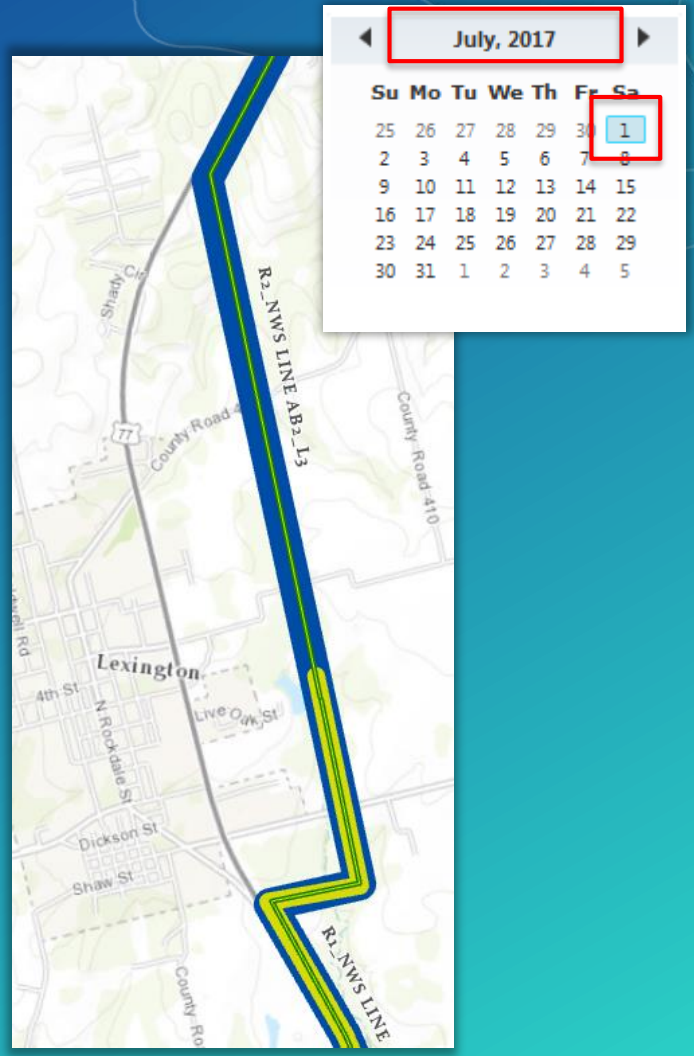
When the LRS routes are edited, measure behavior rules can be applied to events.

Time Aware Model



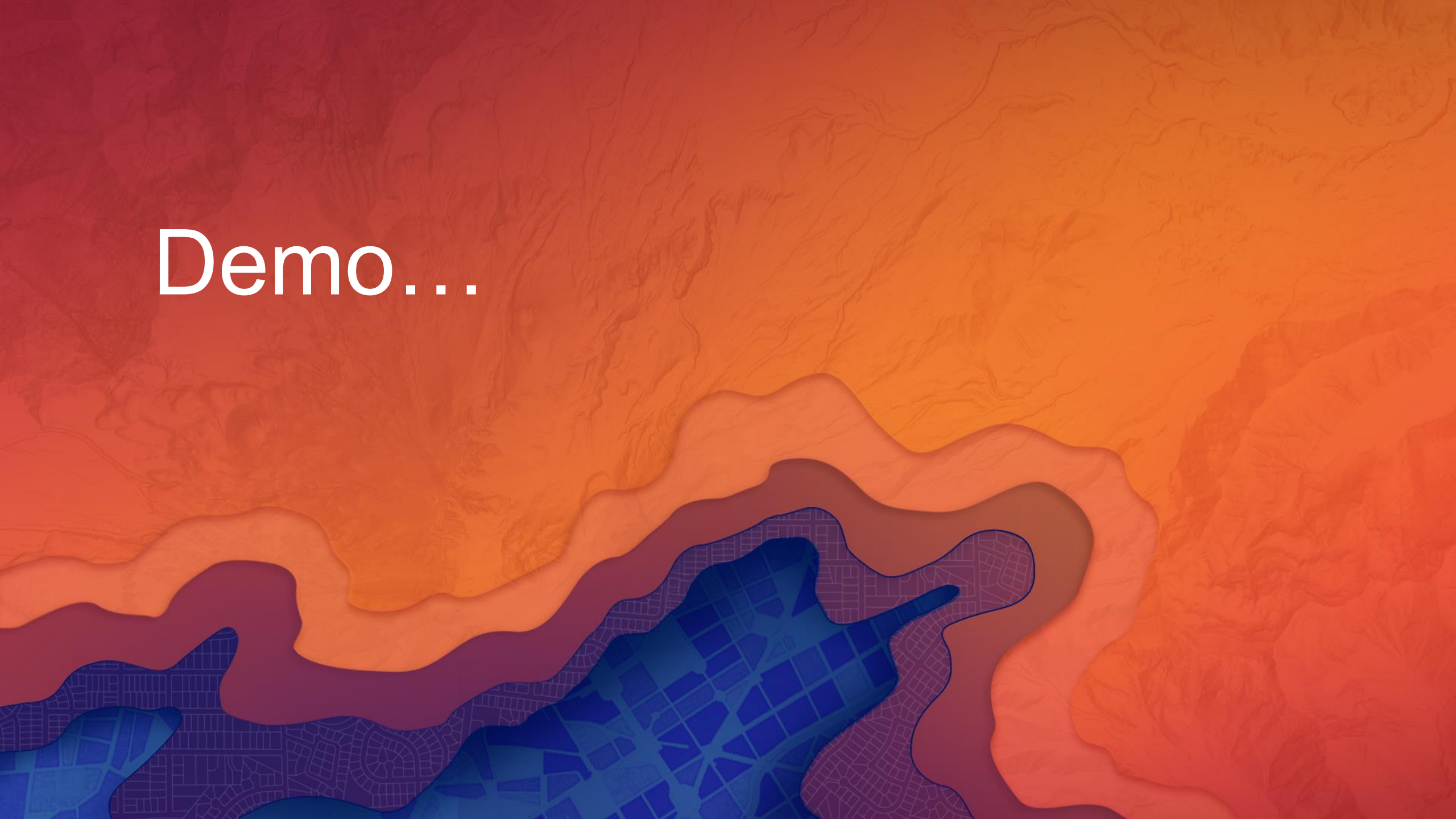
Before

Realignment

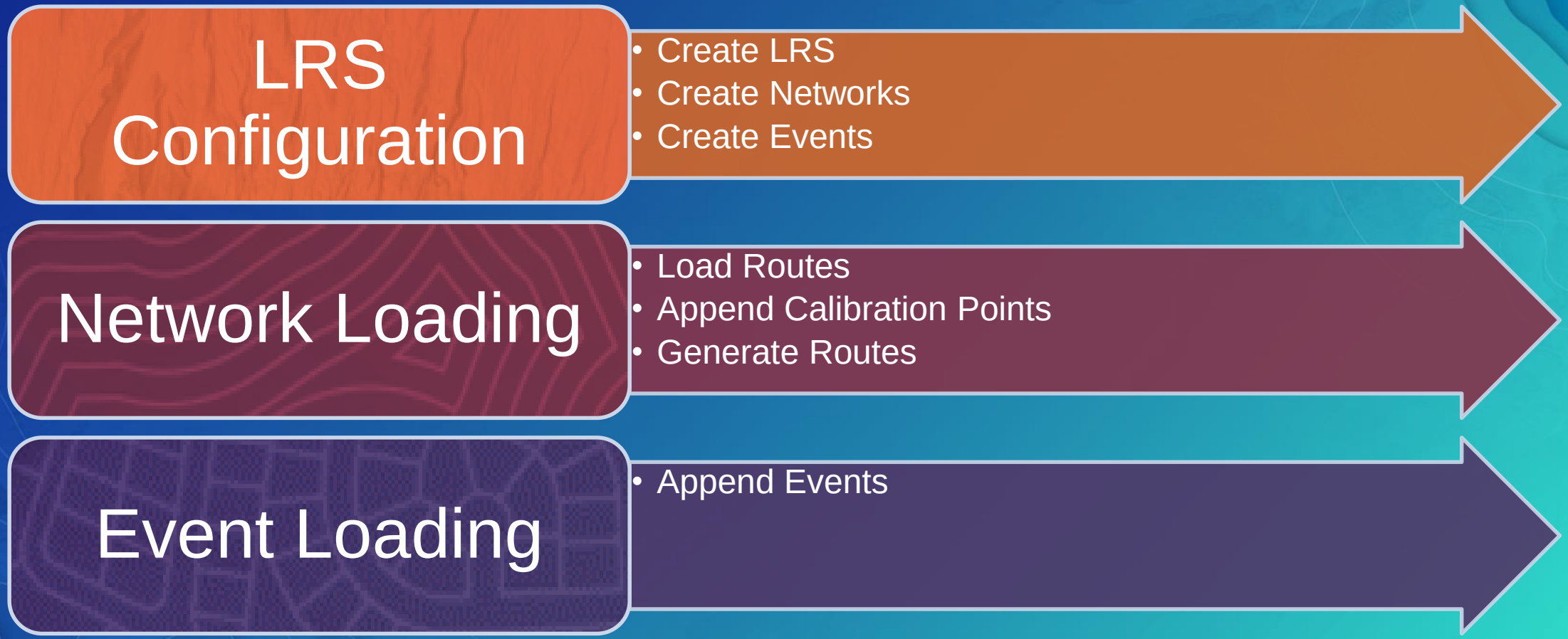


After

Demo…

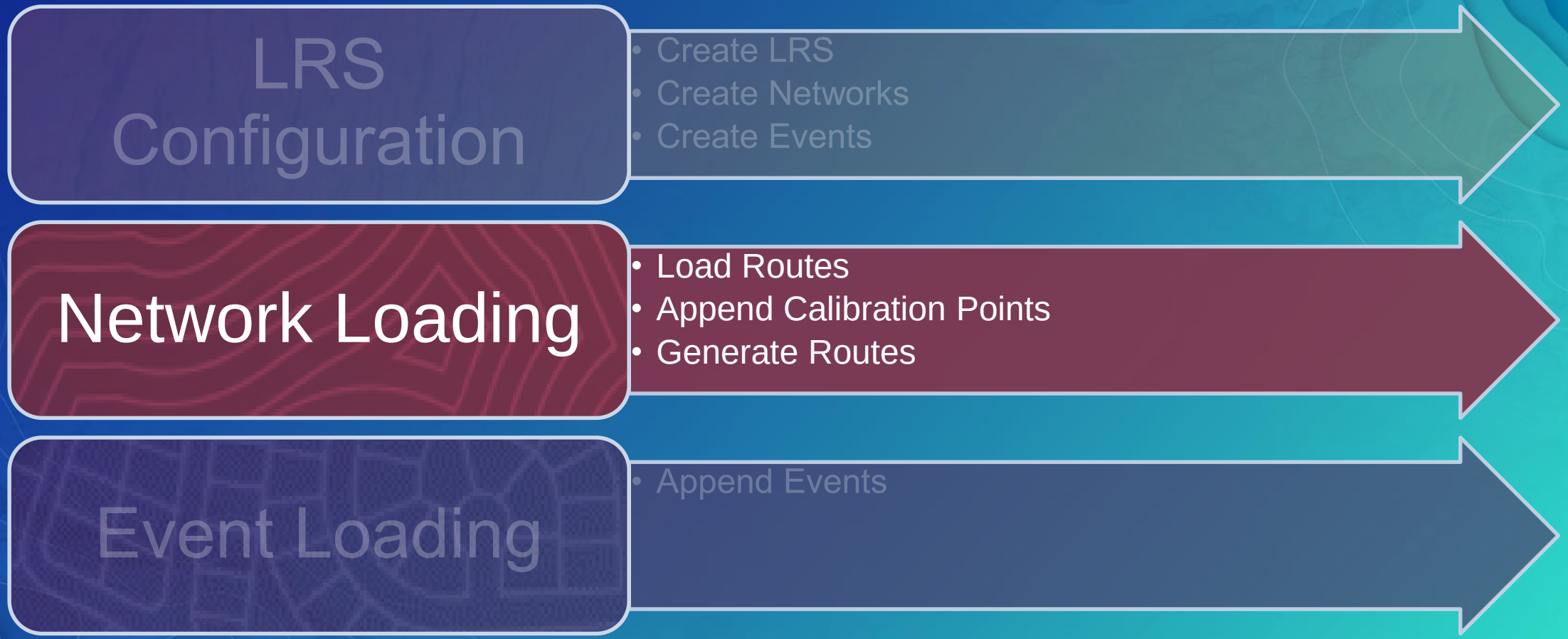


Configuration/Loading Process



LRS Configuration

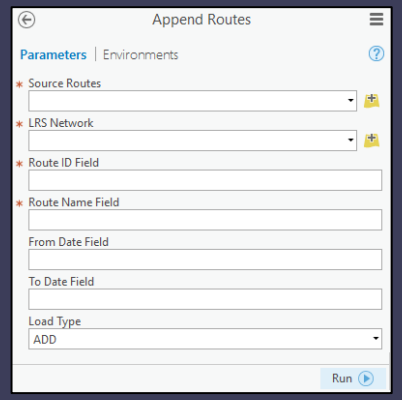
Network Loading



Event Loading

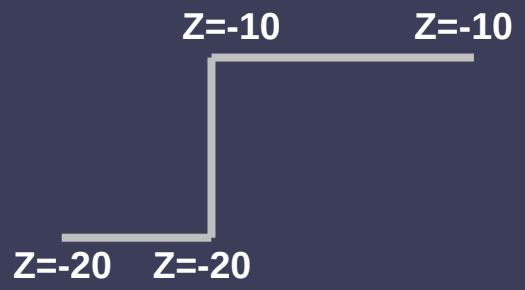
Pipeline Referencing Data Migration Roadmap

Append Routes tool



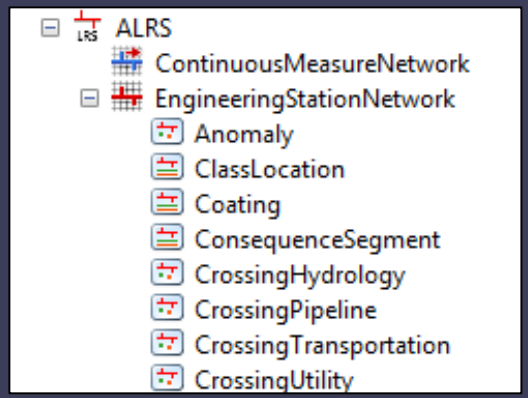
- Load Routes in ArcGIS Pro
- GP tool to provide flexibility

3D Measure Calculation



- Calculate measures in 3D when Z values are present

LRS Hierarchy view



- Show LRS, Networks, and Events in ArcGIS Pro

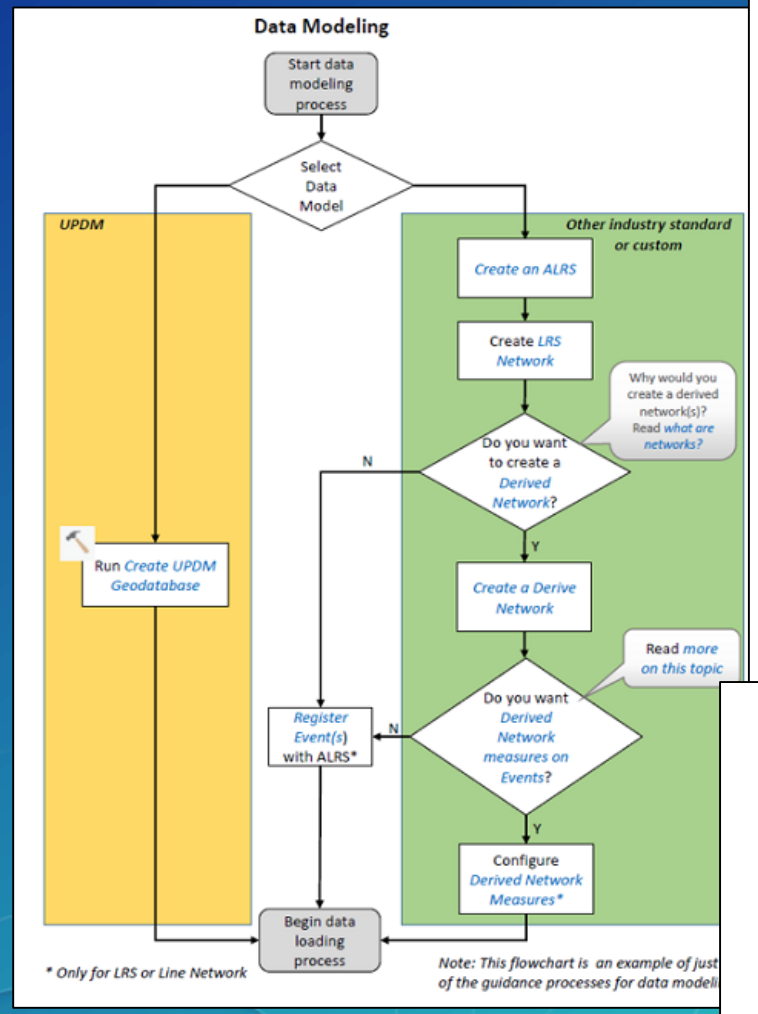
Additional Resources

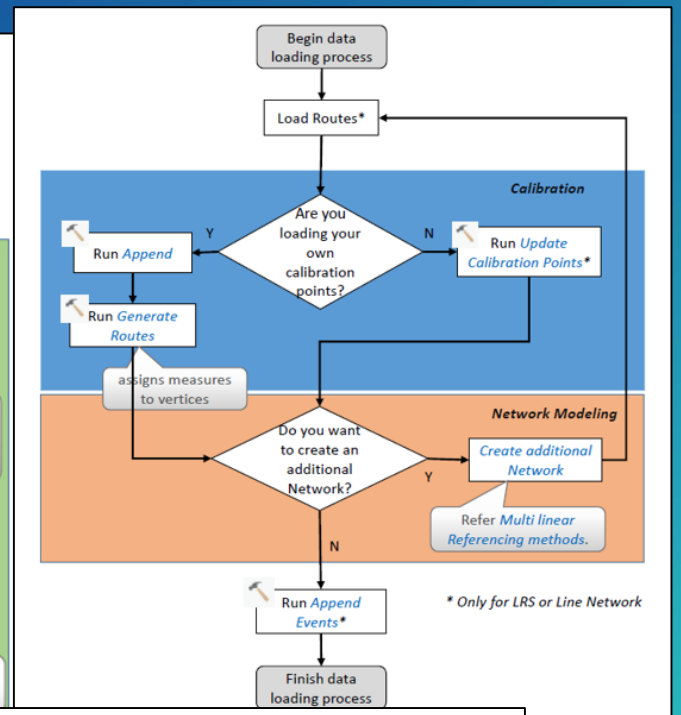
Pipeline Referencing Tutorials (configuration and loading are exercises 6-8)

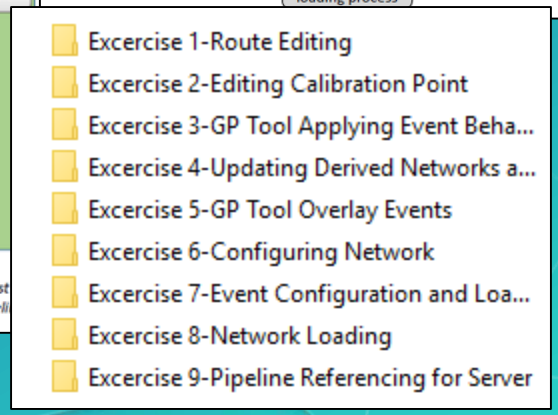
http://arcg.is/2tt82Hx

Configuration and loading workflow help topic

http://arcg.is/2tU9T9m







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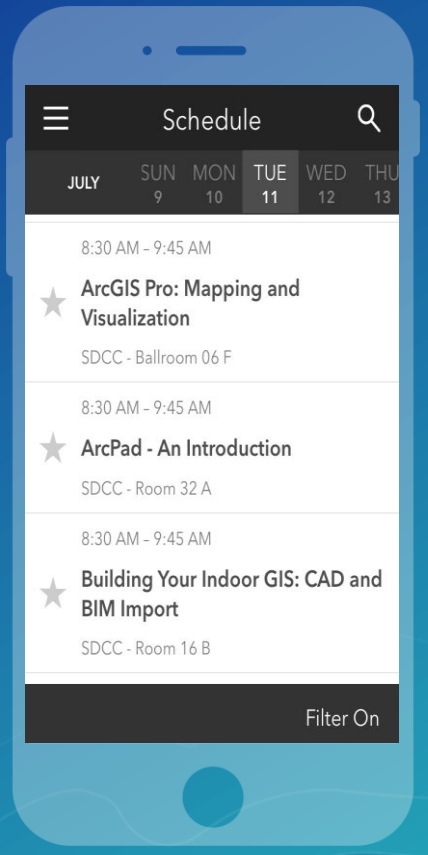
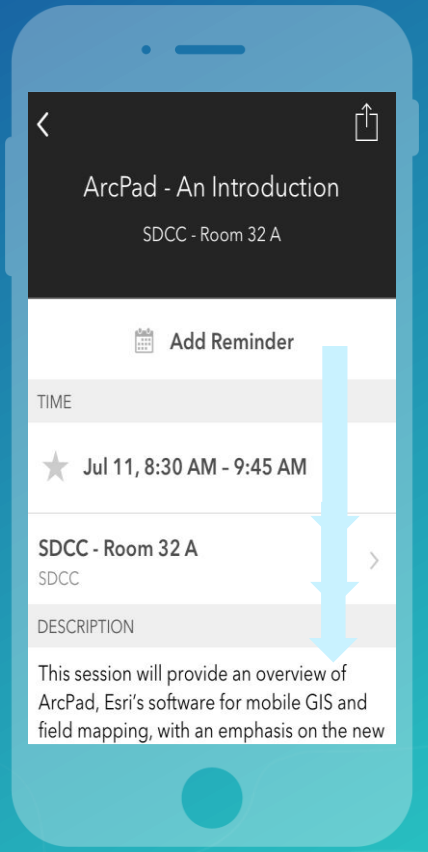
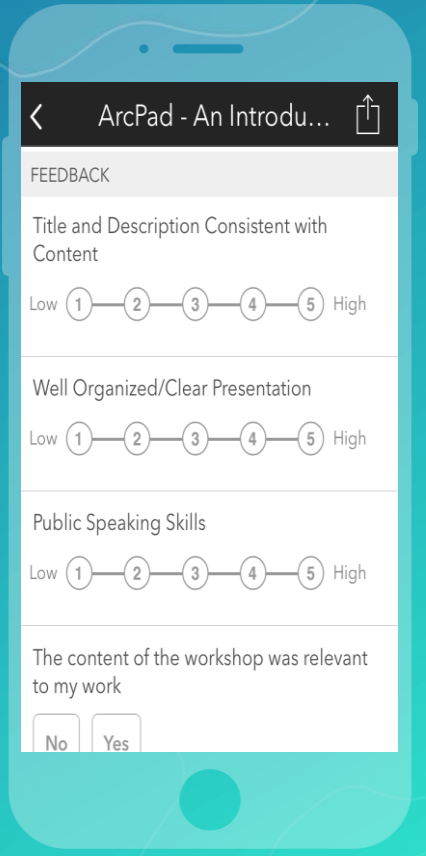
Select the session you attended



Scroll down to find the survey



Complete Answers and Select "Submit"



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