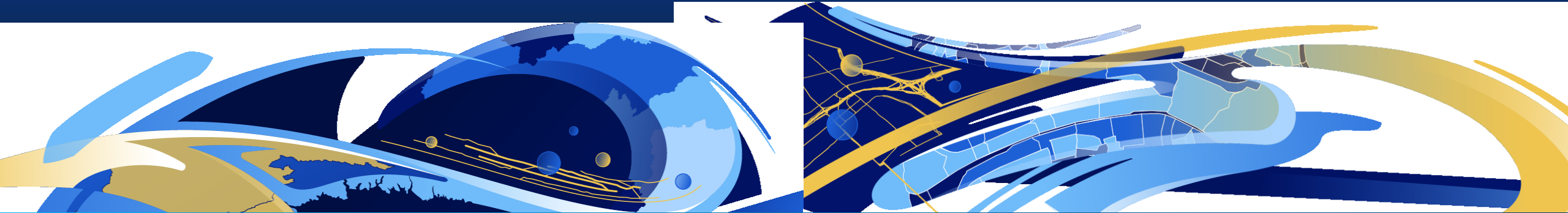




Parcel Fabric Version 4

What's new ArcGIS Pro 2.7 – ArcGIS Enterprise 10.9





What's New – Parcel Fabric @ ArcGIS Pro 2.7



Dan



Amir



Amy



Tim



Jason



Terry



Christine



Kelvin



Ken



Azat



What's New – Parcel Fabric @



Dan



Amy



Terry



Azat





7 Things to know about the new GeoNet Parcel Fabric place

The screenshot shows the ArcGIS Parcel Fabric community page on Esri's community site. The page has a blue header with the title "ArcGIS Parcel Fabric" and a search bar. Below the header, there is a breadcrumb trail: "Home > All Communities > Products > ArcGIS Parcel Fabric". On the right side, there is a "Subscribe" button with a red notification badge containing the number "6". The main content area is titled "All Boards in This Place" and contains five board cards, each with a red notification badge:

- 1** ArcGIS Parcel Fabric Blog (2581 views, 8 comments)
- 2** ArcGIS Parcel Fabric Questions (7257 views, 54 comments)
- 3** ArcGIS Parcel Fabric Documents (521 views, 13 comments)
- 4** ArcGIS Parcel Fabric Videos (1432 views, 31 comments)
- 5** ArcGIS Parcel Fabric Ideas (5287 views, 25 comments)

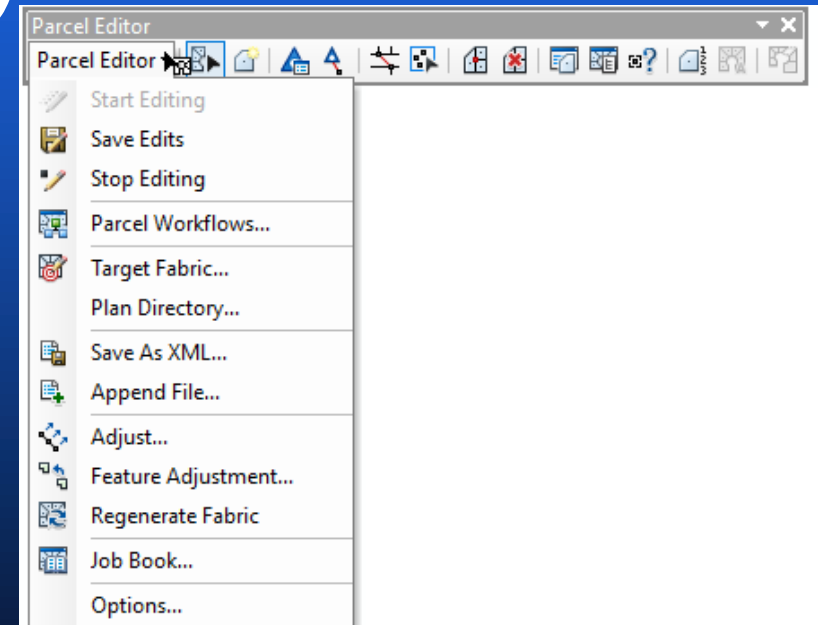
At the top of the page, the Esri logo and "Community" link are visible, with a red notification badge containing the number "7". The browser address bar shows the URL: "community.esri.com/t5/arcgis-parcel-fabric/ct-p/arcgis-parcel-fabric".



ArcMap

Equivalency

Reached ++



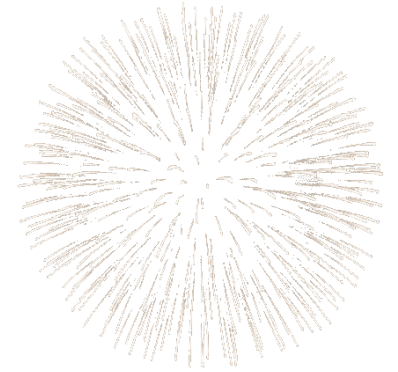
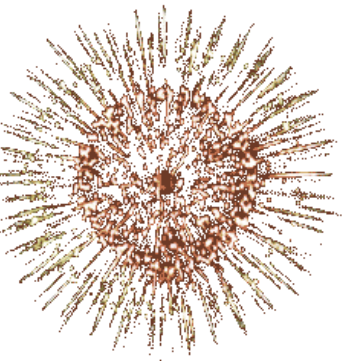
If you think otherwise – please let us know



How do I get started?

- **Contact your esri account manager**
- **Watch the videos on GeoNet**
- **Read the Parcel Fabric help documentation**
- **Prototype or Proof of concept with a partial migration or upgrade**
- **Missing something? Let us know through the ArcGIS Parcel Fabric Ideas Page.**

Dan Stone – dstone@esri.com



What's New in ArcGIS Pro 2.7?

Amir



What's New?

- What's new **Help documentation**
- **Quality ribbon tab** for Quality Driven Workflows
- **Merge Parcel Points** tool
- Geoprocessing tool: **Merge Collinear Parcel Boundaries**
- **Attribute Rules** for parcel fabrics you can import and configure
- Geoprocessing tool: **Generate Parcel Links**
- ArcGIS Pro .Net **SDK**
- **Select Parcel Features** tool

But wait, there's more



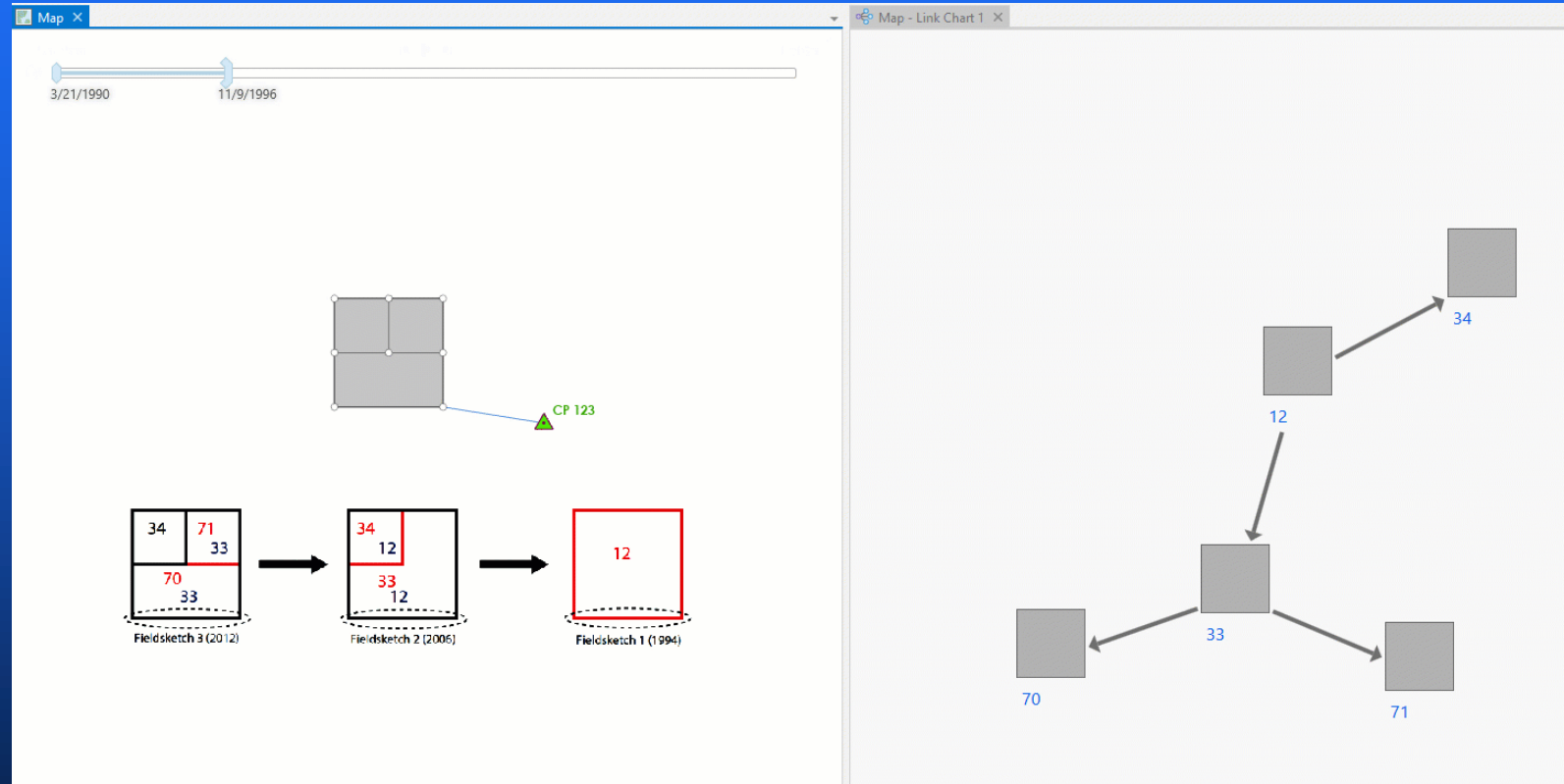
What has Improved?

- **Align parcels** tool
- Geoprocessing tool **Create Parcel Records**
- **Traverse**
- **Performance**



New Capabilities From other teams

- Editing Enhancements
- GNSS Support
- Attribute Rules
- Link Charts
- Civil 3D to Parcel Fabric





Parcel Fabric Compatibility

- Parcel fabric version **MUST** match Pro version and Enterprise version
- Plan: Pro 2.7 and 2.8 will work against the same enterprise version and PF version
- Why do we limit?
 - Changes to REST API
 - Changes to parcel fabric schema
 - Limit the number of permutation to test
- Future: allow multiple version of Pro to work against the same PF version and the same Enterprise version

Use the table below to determine which versions of ArcGIS Pro and ArcGIS Enterprise are required for your parcel fabric version.

Parcel fabric version	ArcGIS Pro release	ArcGIS Enterprise release
1	2.4	10.7.1
2	2.5	10.8
3	2.6	10.8.1
4	2.7	10.9

ArcGIS Pro release versions and their corresponding parcel fabric release numbers

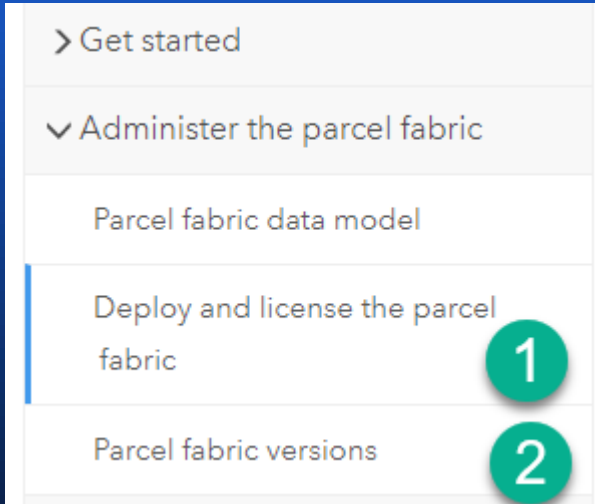
4	no change planned	2.8 Planned	10.9
---	--------------------------	--------------------	------

<https://pro.arcgis.com/en/pro-app/2.7/help/data/parcel-editing/parcelfabricversions.htm>



Administrators - need more help?

- Easy to pick the correct DBMS version
- Licensing help for the different deployments



Parcel fabric versions and database compatibility

The following table shows the minimum supported database versions that are compatible with parcel fabric versions:

Parcel fabric version	Supported PostgreSQL versions	Supported MicrosoftSQL Server version	Supported Microsoft Azure SQL Database version	Supported Oracle version	Supported Oracle cloud versions
1	9.5.12, 9.6.15, 10.7, 11.2	13.0.1601.5 (2016)	12.0.2000.8	12.1.0.2	Not supported
2	9.6.15, 10.12, 11.7	13.0.1601.5 (2016)	12.0.2000.8	12.1.0.2	Not supported
3	9.6.17, 10.12, 11.7, 12.2	13.0.1601.5 (2016)	12.0.2000.8	12.1.0.2	Not supported
4	10.14, 11.9, 12.4	13.0.1601.5 (2016)	12.0.2000.8	12.1.0.2	Not supported

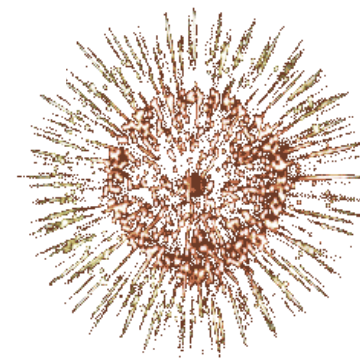
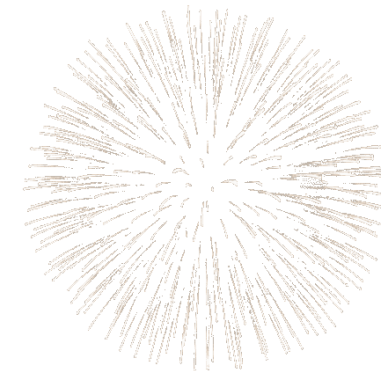
Licensing

Parcel fabric enterprise and single-user deployments require the following licensing:

Deployment	Required ArcGIS Pro license level	Includes	Web and mobile clients
Enterprise	Standard/Advanced	GIS Professional user type (Standard/Advanced) and the ArcGIS Parcel Fabric user type extension	ArcGIS Parcel Fabric add-on license is required
Single-user	Standard/Advanced	ArcGIS Pro license (Standard/Advanced)	Not supported

What's New?

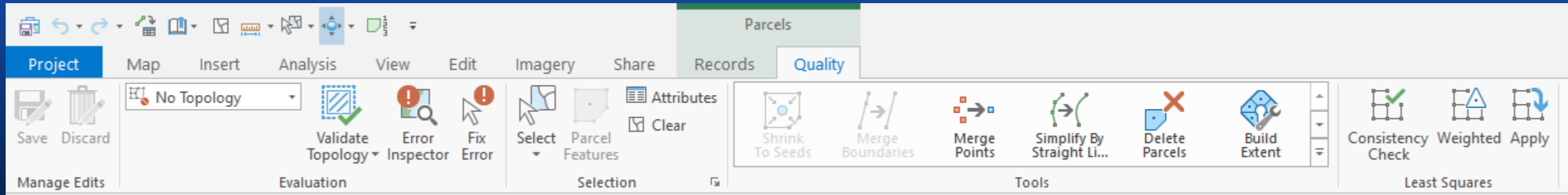
Highlights





Quality ribbon tab for Quality Driven Workflows

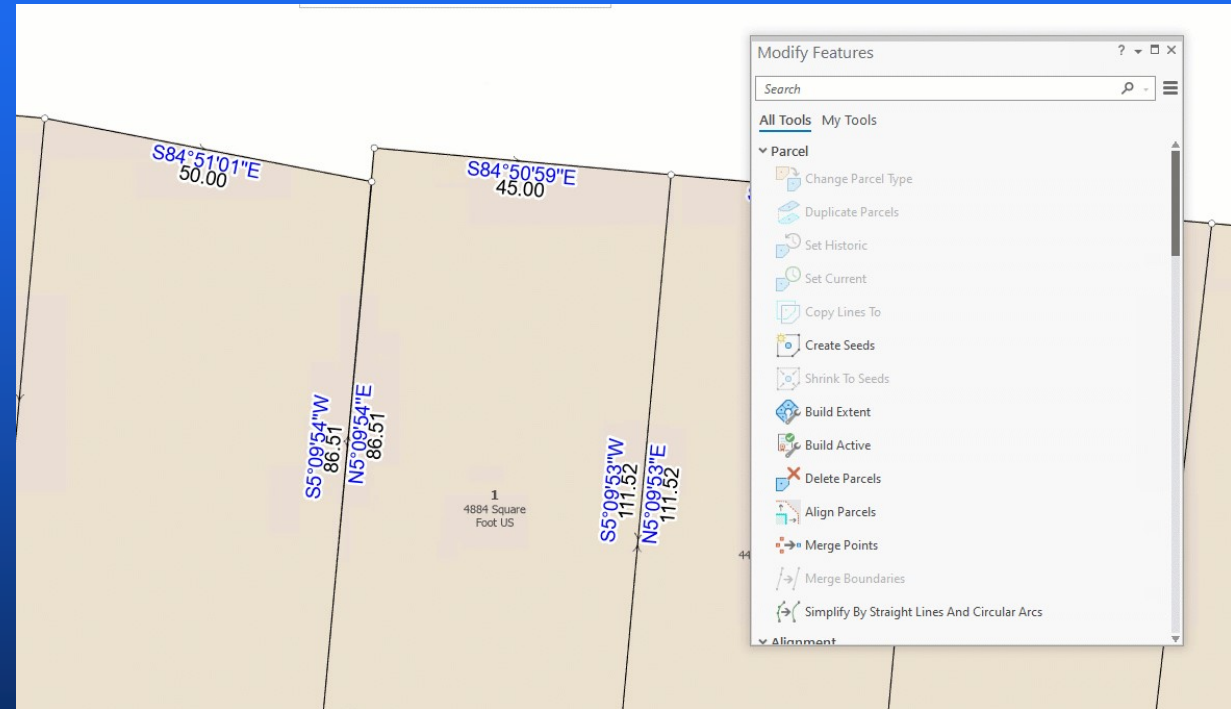
- Differentiate between:
 - Record Driven Workflow
 - Quality Driven workflow
- Promote evaluation and data quality improvements
- Quality matters in a 'System of Record'





Merge Parcel Points tool

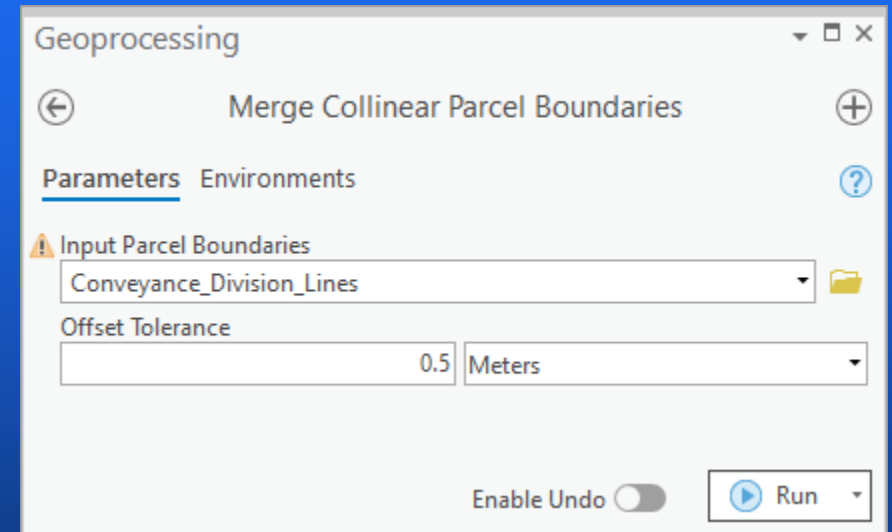
- Select the point to move to
- See a preview before you press merge
- Can be used to:
 - Maintain data integrity
 - Get rid of points that should not exist
 - Fix small line boundaries in the data





Merge Collinear Parcel Boundaries

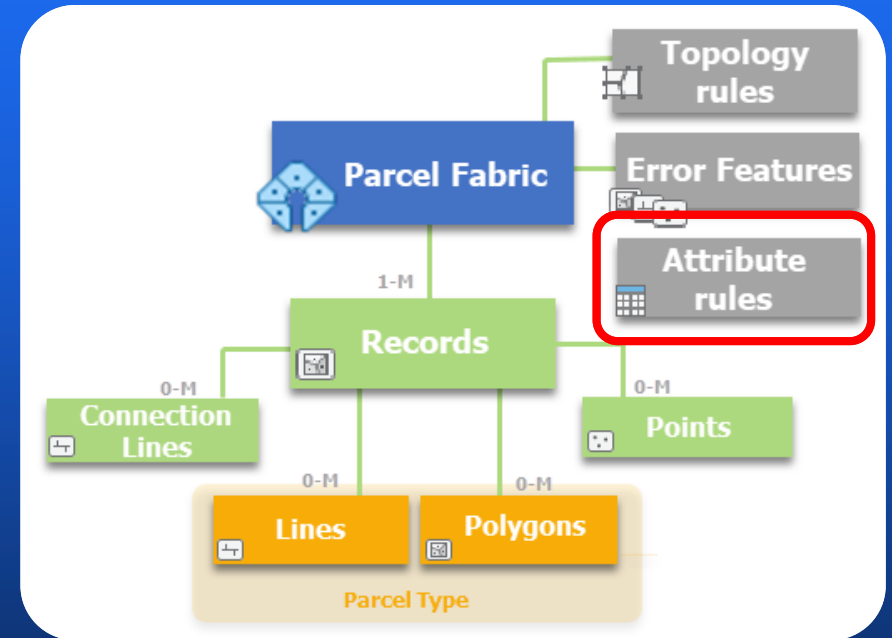
- Use to clean up densified curves that have been split to little line features:
 - Improve performance (spatial index)
 - Reduce line table size
- Can run Simplify by Straight Line and Circular Arc to create true curves
- Use to clean small “misclose” line in CAD data
- Can be automated as part of digital submission process (geoprocessing tool)
- Better than ArcMap?





Attribute Rules for parcel fabrics you can import and configure

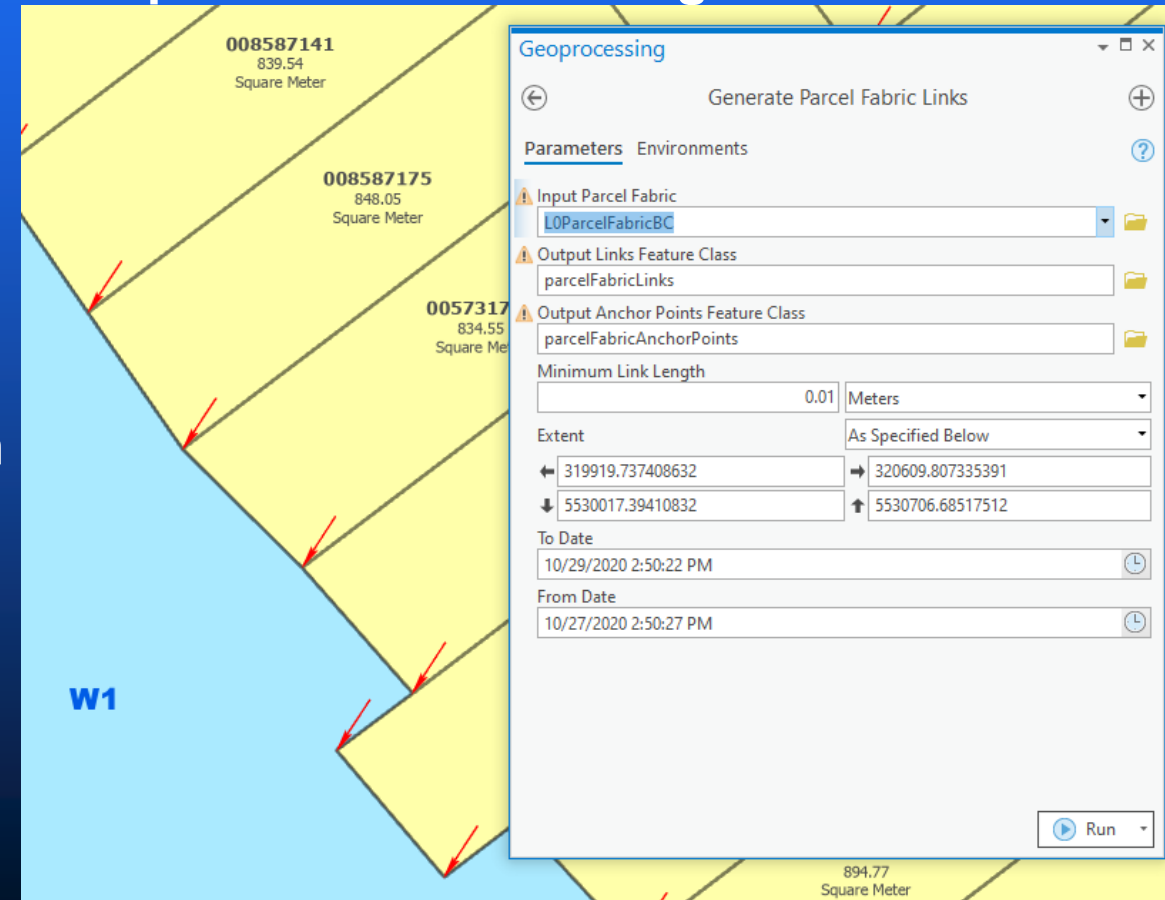
- **System** attribute rules:
 - MUST HAVE A RECORD
 - 'Preserve' flag on points
- **Configurable** rules to meet your business requirements
- **OPT in** and adopt more rules by importing from CSV
- Easy to set tolerance and units
- Attribute rules validation is supported in File GDB with 2.7
- Improved discoverability in future releases
- Add new rules based on requirement and **ideas**





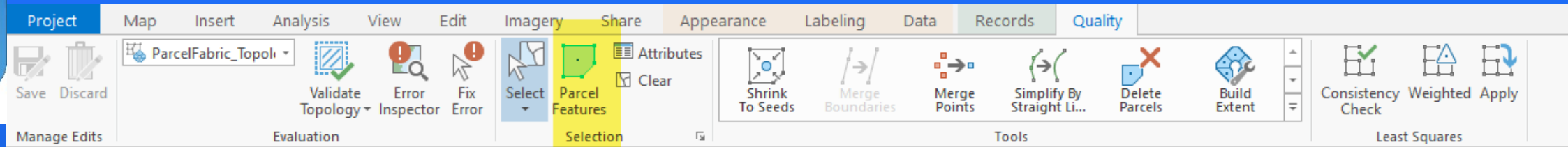
Geoprocessing tool: Generate Parcel Links

- Can be ran by **external** organizations to keep their datasets in alignment
- They choose:
 - **When** to run it
 - Required **extent**
 - Required **time window**
 - **“Nuisance”** tolerance
- Leveraging temporal nature of branch versioning
- After generating links, consume the links using the Rubbersheet Features geoprocessing tool





Select Parcel Features



- **Input:** selected parcel or parcels
- **Output:** input + boundary line and point that define the parcel
- **Common use cases:**
 - New Polygon → Build → Select Parcel Features → Update COGO
 - New Polygon → Build → Select Parcel Features → Split into COGO lines
 - Parcels → Select Parcel Features → Simplify SLACA → Merge collinear boundaries
- The closest thing to ArcMap “**Open parcel**”

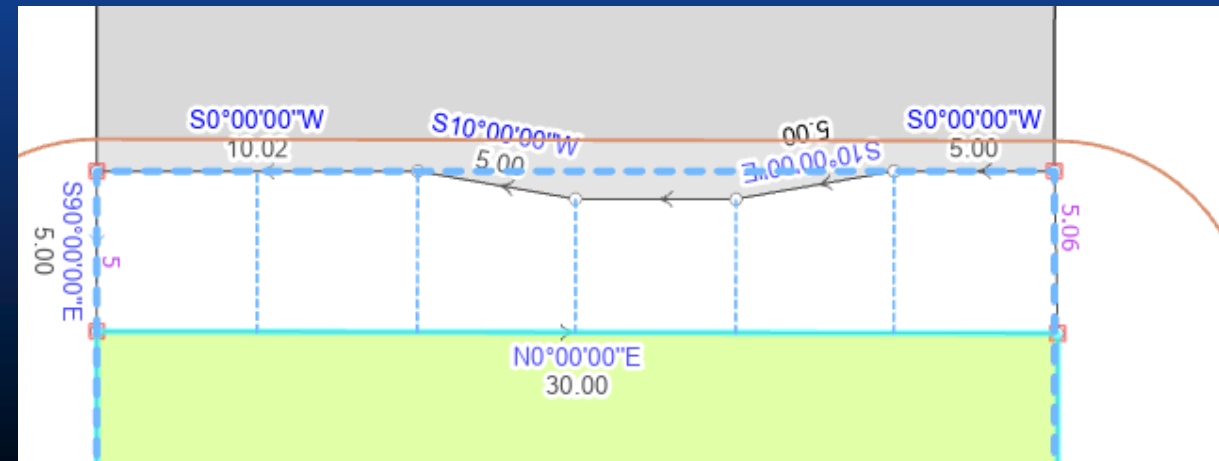
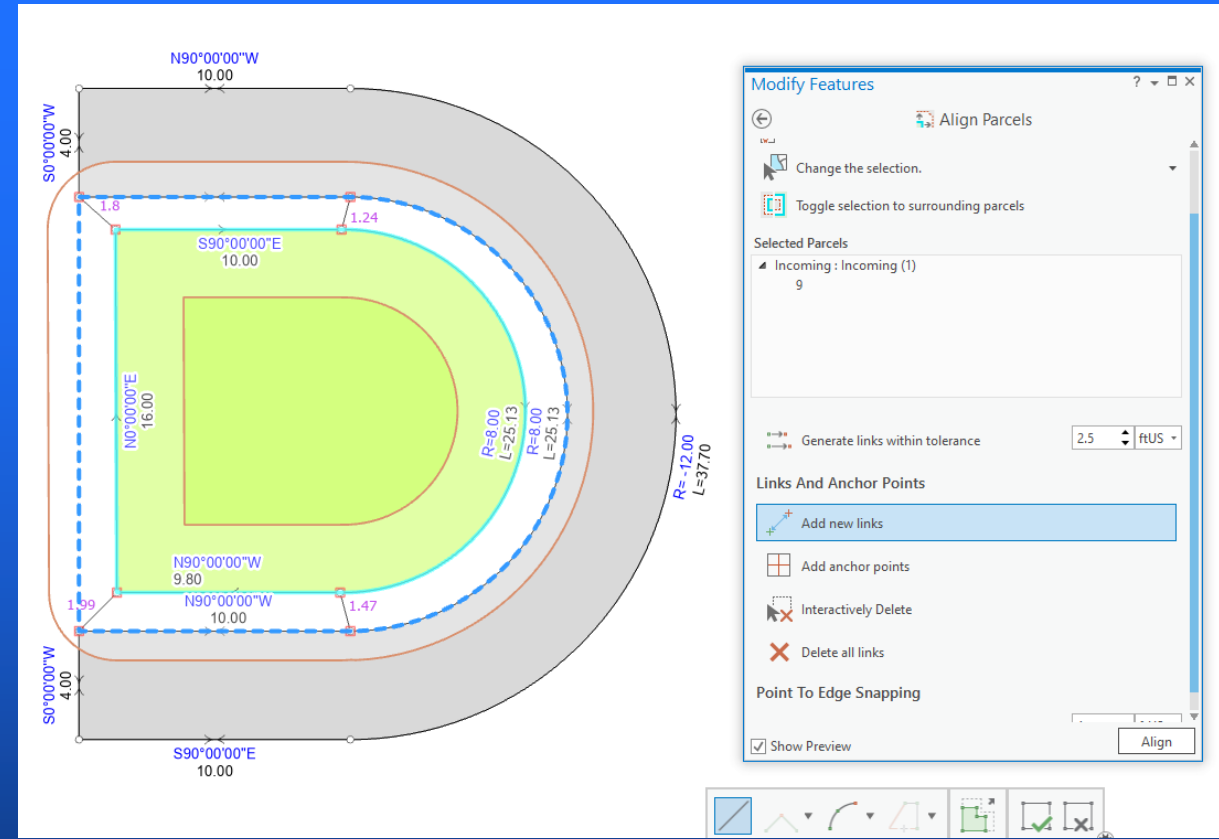
What has Improved?

Highlights



Align parcels tool

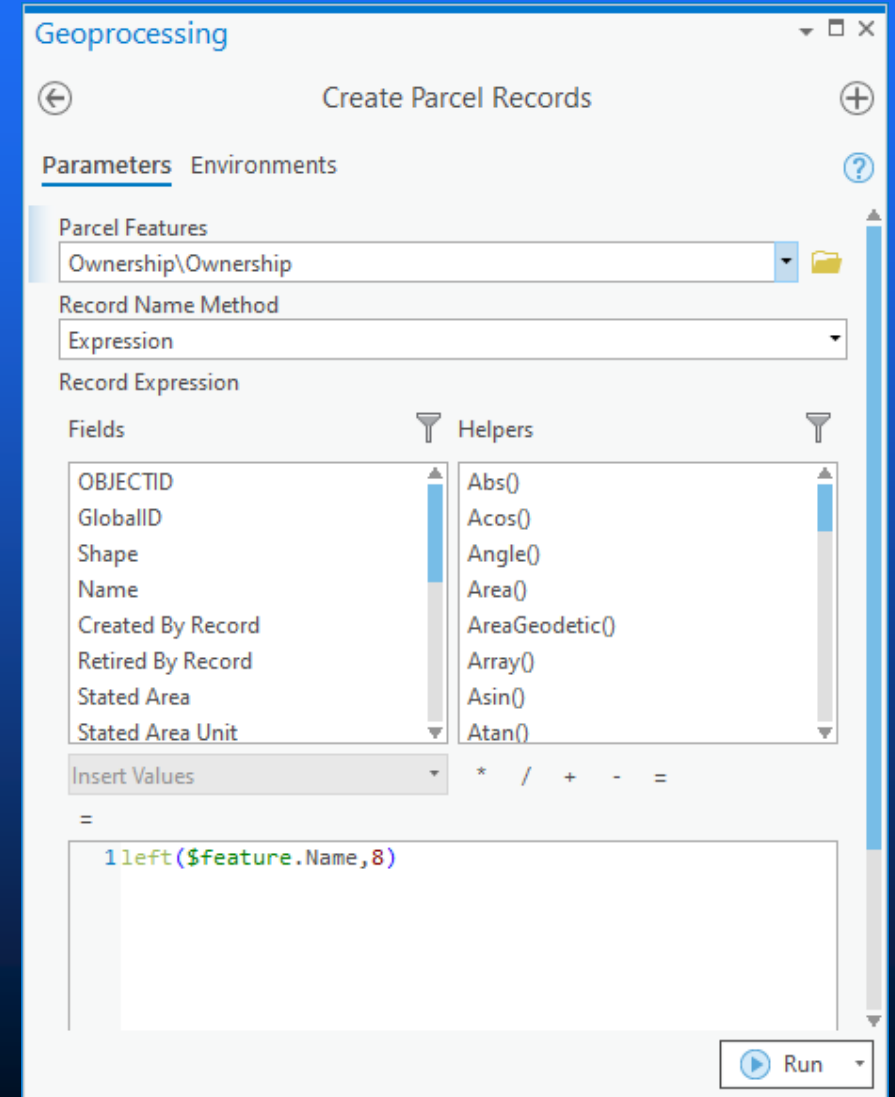
- Point to edge snapping
- **Preview**
- Improved UI
- Supports:
 - **Curve to curve** alignment (many to many)
 - **Overlapping** parcels
 - **Interactively delete** links and anchor points
- The go to tool for aligning parcels





Geoprocessing tool Create Parcel Records

- User idea (Frank Conkling - Panda Consulting)
- No need to:
 - Create a field called “RecordName”
 - Calculate desired value →
 - Run Create Parcel Records
 - Delete the field
- Can still run against a field





Traverse

1. Entry of polygons (COGO values are not saved)
2. Learn more: all the great efficient shortcuts
3. Persist curve entry mode

Modify Features

Traverse

Layer: Conveyance Division_Lines

Set Start Location Modify

Direction	Distance	Radius	Arc Length
N54°32'40"W	25.17		Arc Length
N54°14'16"W		15.13	Chord Length
N34°22'10"E		-75.01	Delta Angle

Modify Features

Traverse

Layer: Block

- Block
- Block_Lines
- Connection Lines
- Conveyance Division
- Conveyance Division_Lines
- Links
- PLSS Quarter Section
- PLSS Quarter Section_Lines
- PLSS Section
- PLSS Section_Lines
- PLSS Township
- PLSS Township_Lines
- Simultaneous Conveyance
- Simultaneous Conveyance_Lines
- Special Survey
- Special Survey_Lines
- Tax
- Tax_Lines

Set Closing Location Closed

Misclose Distance:
Misclose Ratio:
Calculated Area:

Learn more [Finish](#) [New](#)

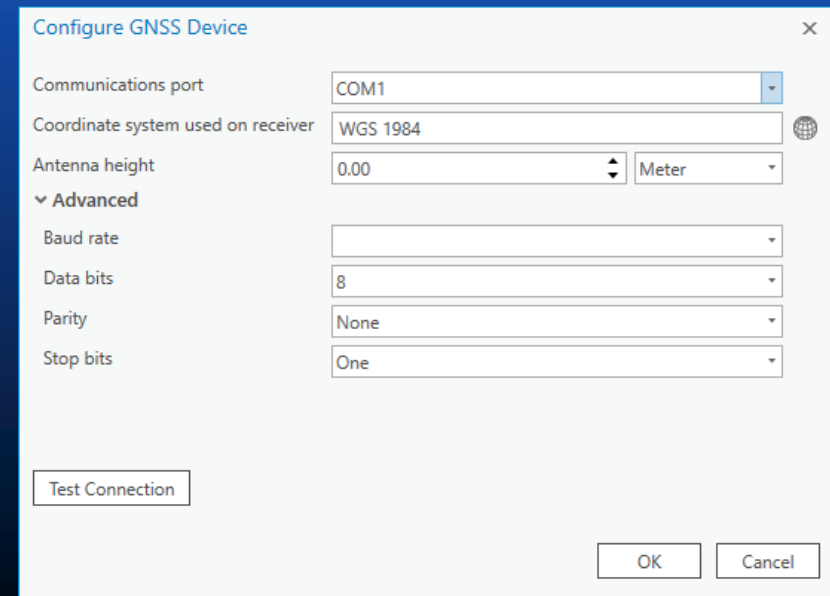
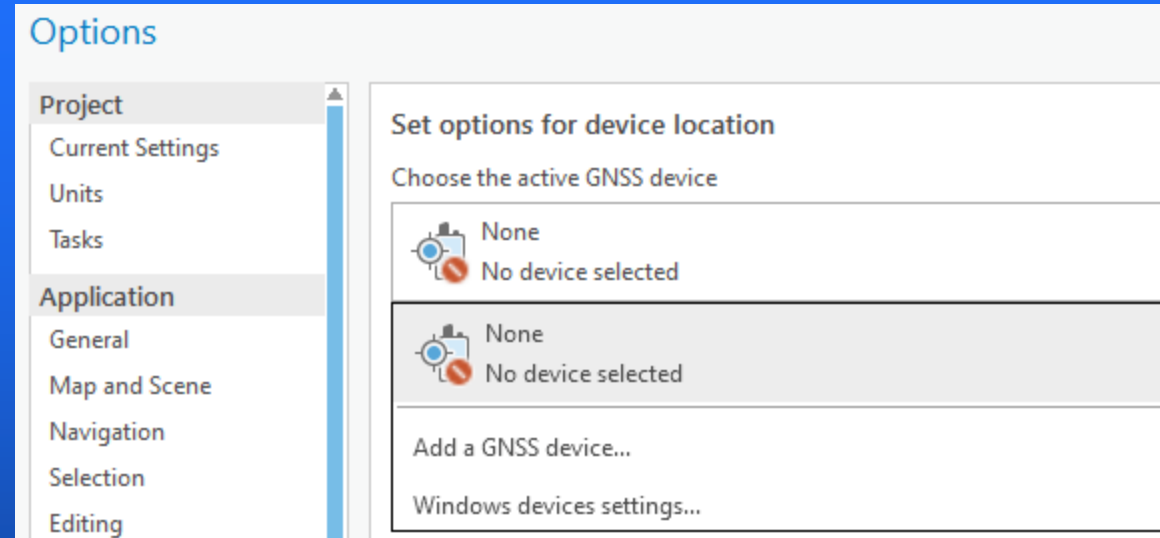
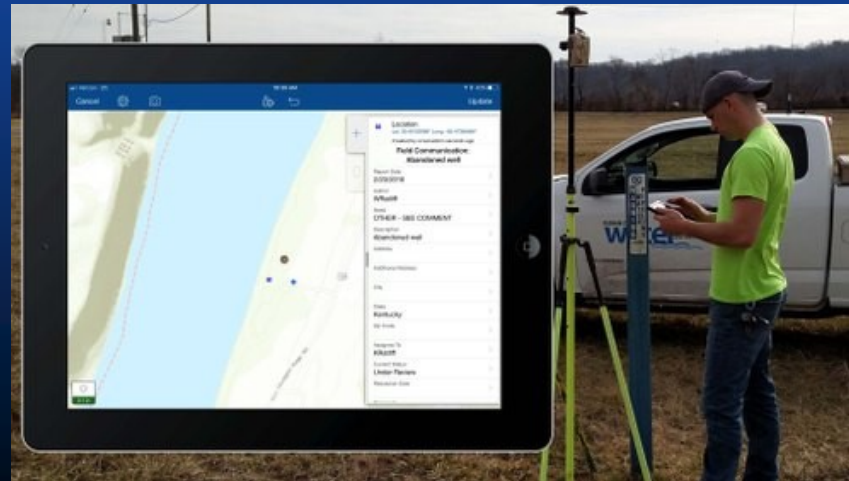
New from other teams

Editing Enhancements

- Inference (like CAD)
- Planarize is “COGO aware”
- 2 point line curve is tangent to previous segment
- Extend & Trim for multiple features
- Direction Distance constraint input order
- ...

GNSS Support

- GNSS (= GPS, Galileo, GLONASS, Baidu) can be paired with ArcGIS Pro
- Supports NMEA stream
- Pro can be taken to the field
- Map can be taken offline (simple feature classes)



Attribute Rules (Arcade)

- **currentUser = getUser (\$feature);**
 - Certain users can edit in certain areas
 - Certain users can edit certain tables
 - Certain users update certain attributes

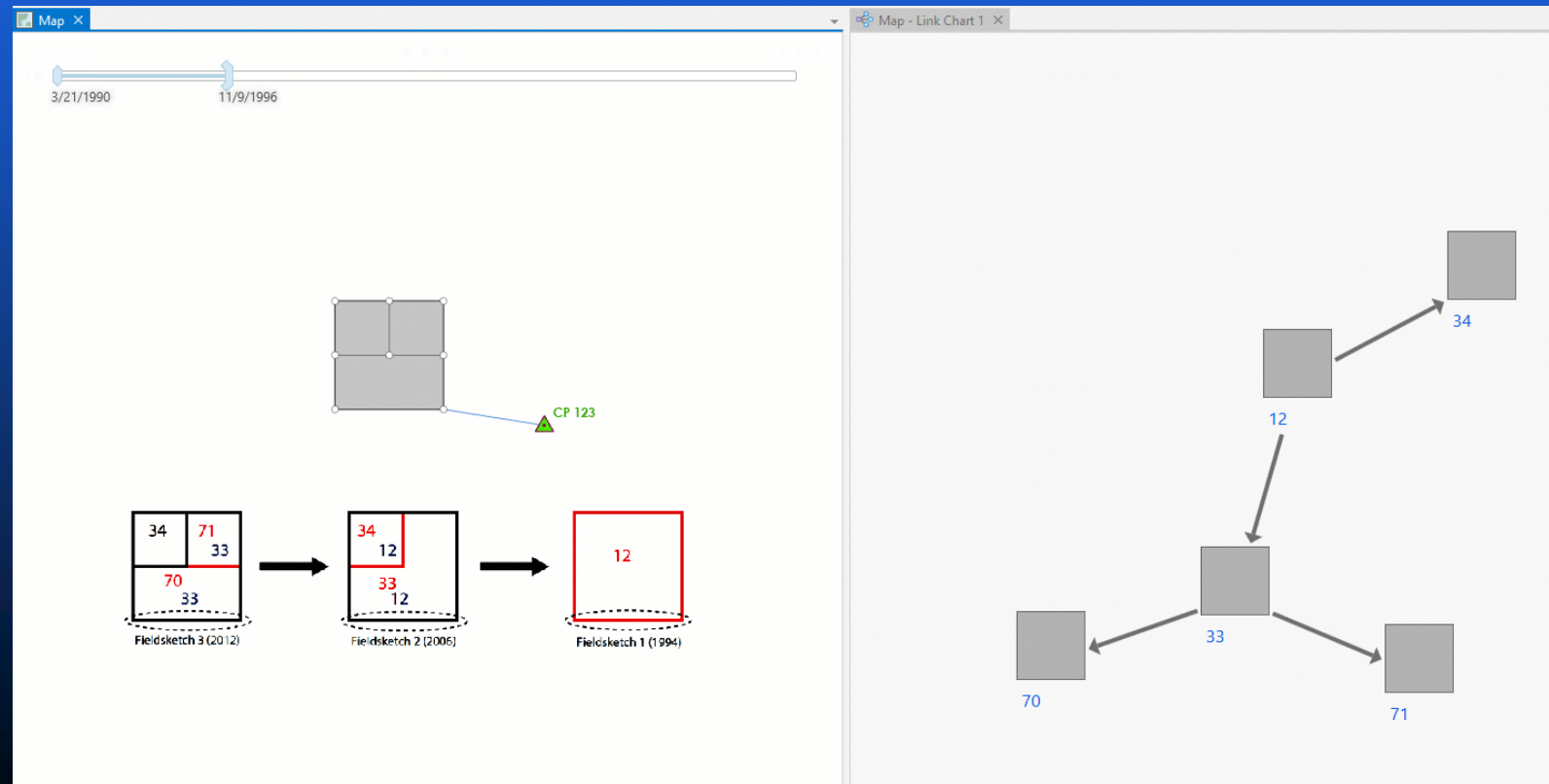
- **myVersion = gdbVersion(\$feature);**
 - Prevent direct editing of the default version
 - But allow reconcile & post to it

- **Can be used in popups and labeling as well**

```
user = {  
  "id" : <String> //user id  
  "username": <String> // username  
  "fullName": <String> // First Name + Last name  
  "email": <String> // email  
  "groups" -> <Array> e.g. [ "Electric", "Water" ]  
  "role" -> String (Administrator, Publisher, User, Viewer or Custom Role  
  "privileges" -> Array of fine privileges (edit, view etc.. )  
  "userLicenseTypeExtensions" -> Array ["Utility Network", "Parcel Fabric"]  
}
```

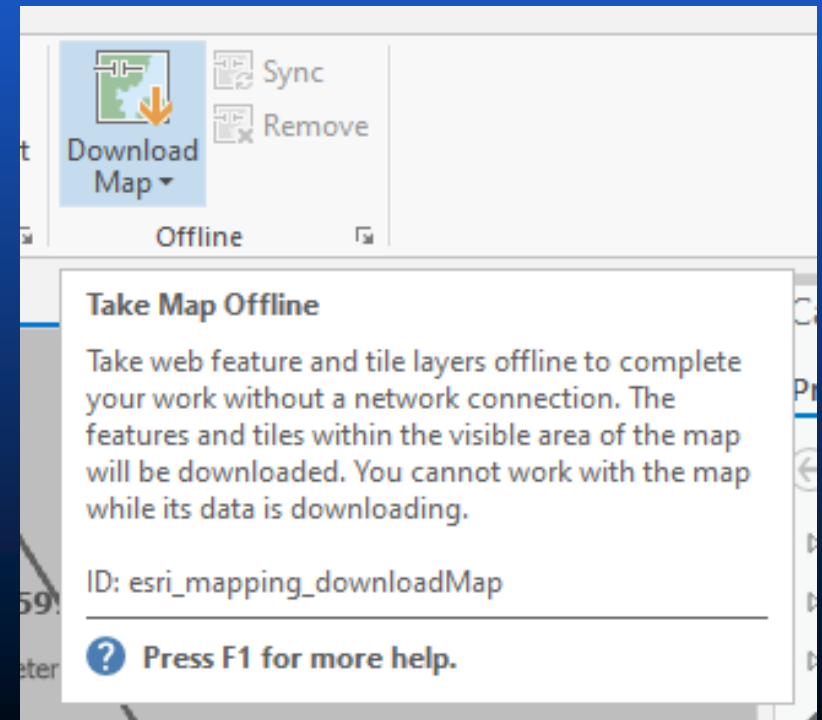
Link Charts

- Used to explore and visualize relationship between entities: people, spatial objects
- Can be used for contact tracing, solving a murder case ...
- But also:
 - Parcel Lineage
 - Owners – parcels
 - Records - features



Collaboration

- Establish collaboration between 2 enterprise portals (production and publication)
- Offline map is supported (for simple feature classes):
 - Can be used in places with unreliable internet
 - Sync when ready to a named version
 - Currently limited to simple edits
- More to come in this area:
 - Replication for branch versioning
 - Coordinate based cadastre (field)
 - Integration to business systems using web requests
 - ...



Getting started with Pro

- **Make it easier to get started with Pro**
- **For:**
 - **New users**
 - **Users coming from ArcMap**

Resources



What's
New



Quick
Start



Learn
ArcGIS



Esri
Academy



GeoNet



Blog



Help

Coming from ArcMap?

Getting started for ArcMap users

Import an ArcMap document

Migration Guide

Discovery Paths

Learn the basics

Begin with the essentials.

Mapping and visualization

Create compelling data visualizations and beautiful maps.

Analysis and modeling

Use geoprocessing tools, build models, and explore geostatistical analysis and machine learning.

3D perspective

Explore, analyze, and symbolize your data in 3D.

ArcGIS® Pro Roadmap

<https://community.esri.com/docs/DOC-15230-arcgis-pro-roadmap-july-2020>

Near-term

- Linear Reference Editing
- **GPS Support**
- Data Engineering
- Material Textures
- Roof Editing in Stereo
- Floor Aware Mapping and Editing
- Deep Learning for Point Clouds
- Geoprocessing Leveraging Spatial Databases
- Movement Analysis Tools
- Suitability Model Sharing
- Layer Blend Modes
- **Service-Driven Workflow Manager**
- Geoprocessing Credit Estimator
- Industry Foundation Classes (IFC)

Mid-term

- **Knowledge Graphs**
- Catalog Layers
- Projects in the Enterprise
- Voxel Layer Sharing
- Presentations
- Dynamic Feature Clustering
- Animated Symbols
- Upgrade Python Environment
- Spatio-temporal Density Analysis
- Outlier Detection
- Onboarding Experience
- Aviation Charting

Long-term

- Terrain Editing
- 3D Mesh as Ground
- High Fidelity Rendering
- Simulation Modeling

July 2020

ArcGIS® Parcel Fabric Roadmap

2.7-2.8

Near-term

- Quality Driven Ribbon Tab ✓
- Generate Parcel Fabric Adjustment Links ✓
- Merge Colinear Parcel Boundaries ✓
- Merge Parcel Point Tool ✓
- Default Attribute Rules ✓
- Align Parcel Improvements ✓
- True-Mid bearing direction type ✓
- .Net SDK support ✓
- Select Parcel Features tool ✓
- Records HUD improvements

2.8-2.9

Mid-term

- Back Lot Creation Tool
- Clip and Merge Parcel (Transfer Land)
- Digital Submission
- Parcel Lineage
- Traverse:
 - Traverse COGO Report
 - Adjustment methods
- Cartographic processing using LSA

Long-term

- 3D Cadastre
- Coordinate based Cadastre
- Parcel Web Editor/Widget
- Geo-Enable Business System
- Data exchange
- Fit for purpose cadastre
- AI & ML for parcels
- 'Field to Fabric' workflows

December 2020



Demos

