ArcMap
Editing Tips and Tricks

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Overview

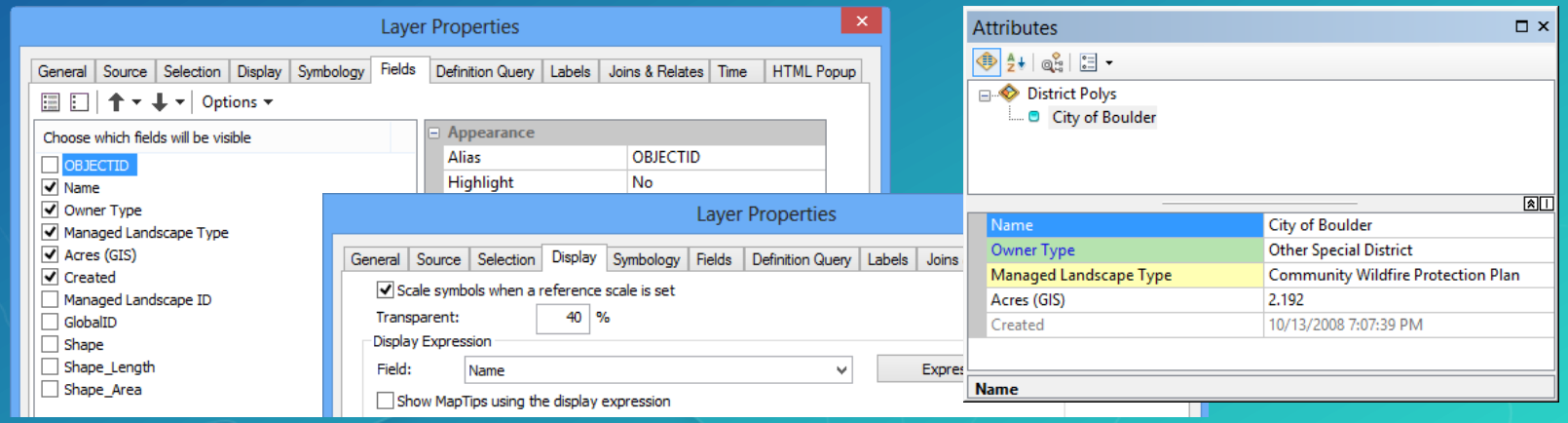
- Topics
  - Tuning your editing map
  - Creating features
  - Editing features and attributes
  - Aligning and editing coincident features
  - Addins
- Format
  - Software demonstrations
  - Q&A as we go

Look for tips in green boxes.

Tuning your map for editing

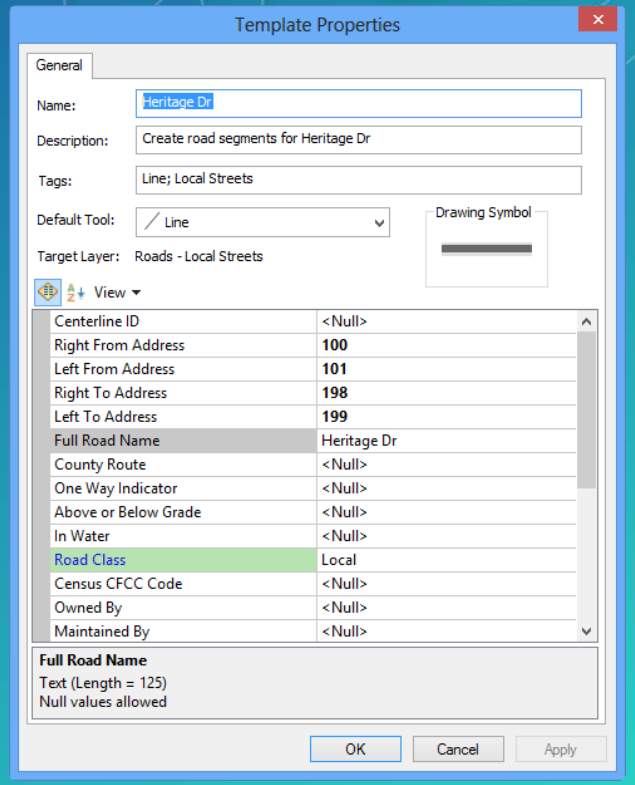
Preparing a map for editing

- Best to have all data in same, local projection
- Set layer properties before you start editing
  - Symbology tab
  - Fields tab: alias, visibility, highlighting, read-only
  - Display tab: Display expression
  - Definition query: works best with discrete (=) queries



Creating features with feature templates

- All info needed to create a feature
  - initial attribute values, target layer, default construction tool
- Templates are used anytime you create features
  - After feature is created, no connection back to template
- Saved in .mxd (also .lyr files, packages, and web services)



Any geodatabase default values are automatically set as defaults for feature templates.

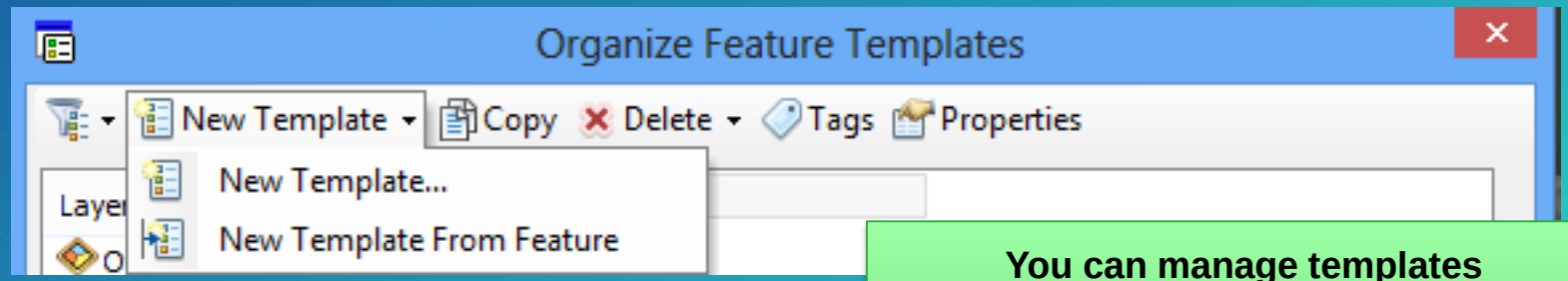
Best practices for feature templates

- Create templates
  - Auto-generated at edit session start if not present for layer
  - Multiple templates in a layer with different defaults (tools, attributes)
- Set good layer, symbol names, and field aliases
- Add description and tags for easy searching
- Delete templates you are not using

If you see a gray symbol and draw warning, re-create the template. Happens if you change the renderer after templates were created.

Managing feature templates

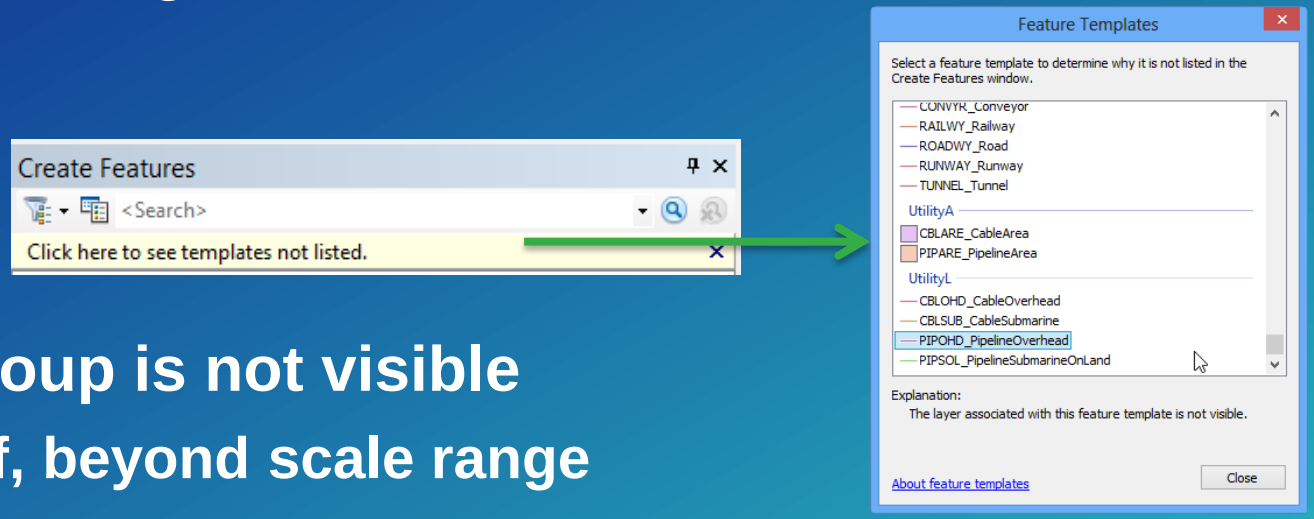
- **Organize Feature Templates window**
  - Create, modify, delete templates
  - Update properties for multiple templates
- **Use existing feature as “template” for new template**
  - Makes it easy to set target layer and default attribute values
  - Select a feature > Open Organize Feature Templates window



You can manage templates
when not in an edit session.
Right-click layer in table of contents >
Edit > Organize Feature Templates.

Why are my feature templates hidden?

- To avoid creating features that cannot be drawn

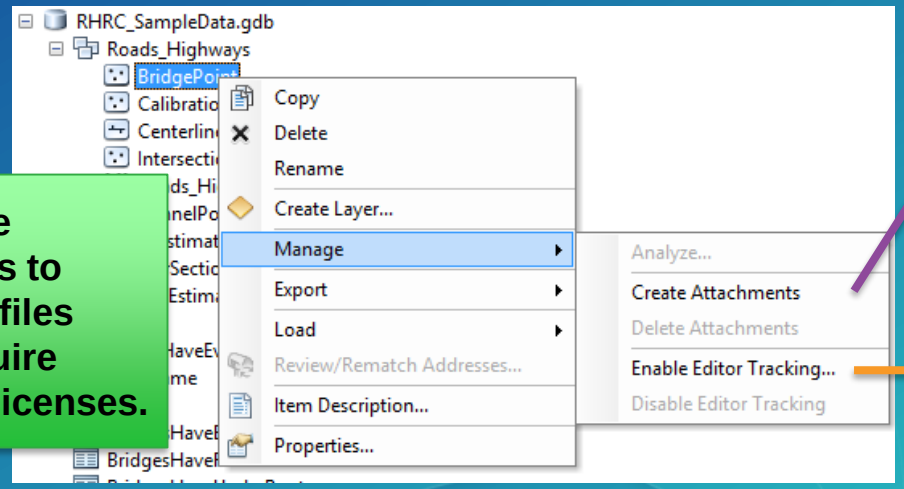


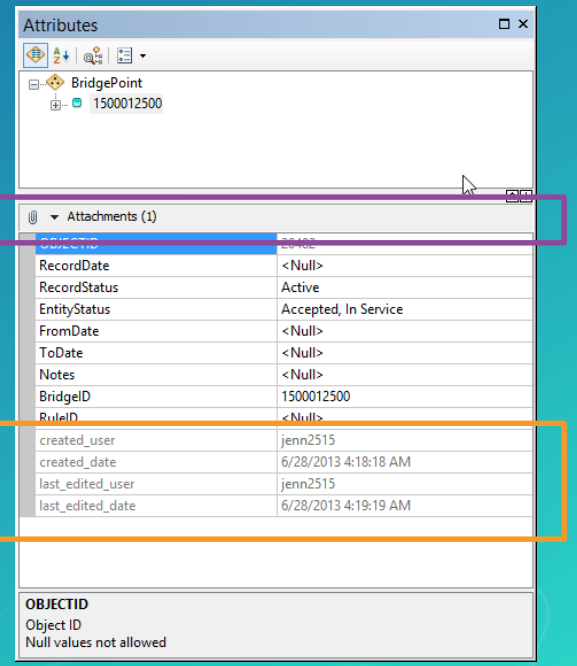
- Layer or group is not visible
  - Turned off, beyond scale range
- Default attribute values do not fulfill definition query
  - More info: see Best practices blog
- In a parcel fabric: use Parcel Editor toolbar
- Or templates may not exist – need to create yourself

Setting up fields to track edits and add attachments to features

- For geodatabases only: enable from Catalog window
- Editor tracking: automatically records editor's name, creation date, or last edit date
- Attachments: add documents and images to features
  - manage on Attributes window

Attachments use relationship classes to match the attached files to features, so require Standard or Advanced licenses.





Creating features

Switching among tools while editing

- Use keyboard shortcuts: E, C, X, Z, and B
  - E key to toggle among construction, Edit, and Edit Annotation tools
  - C key to pan
  - X key to zoom out
  - Z key to zoom in
  - B key to zoom and pan continuously

Shortcuts common to all editing tools

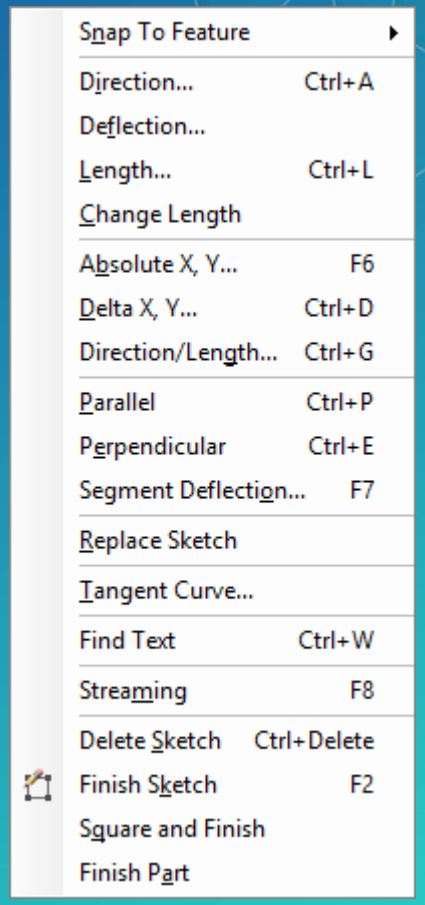
Shortcut key	Editing function
Z key	Zoom in
X key	Zoom out
C key	Pan
B key	Continuous Zoom/Pan
V key	Show vertices
Esc	Cancel
Ctrl + Z	Undo
Ctrl + Y	Redo
Spacebar	Suspend Snapping

- Use the navigation shortcuts with any ArcMap tool

See the help for a complete list of editing shortcuts.

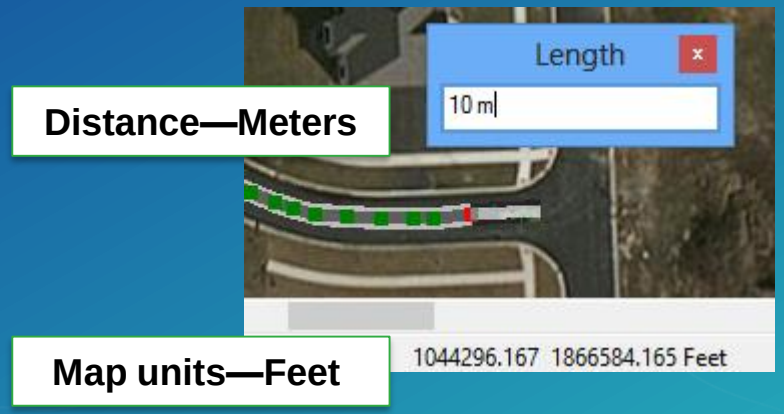
Creating a sketch using measurements

- **Feature Construction toolbar or right-click**
  - Parallel or perpendicular
  - At a specific coordinate or angle
  - With a specific length
- **Feature Construction toolbar**
  - Press Tab to show and hide toolbar
  - Off by default
  - Enable permanently on Editor Options



Overriding map units

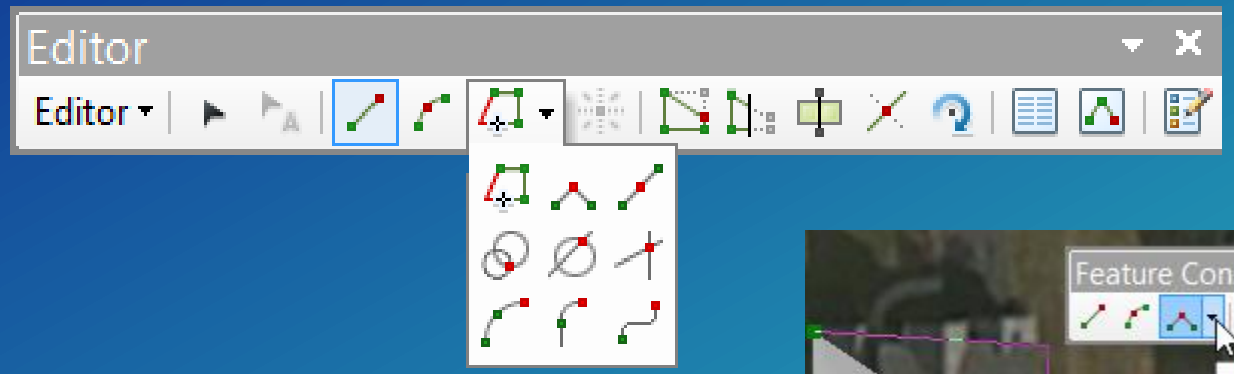
- Use unit abbreviation after distance value
- DD, DMS, or DDM when map has a projected coordinate system to enter Absolute XY and Delta X,Y
- See the help for a full list of abbreviations

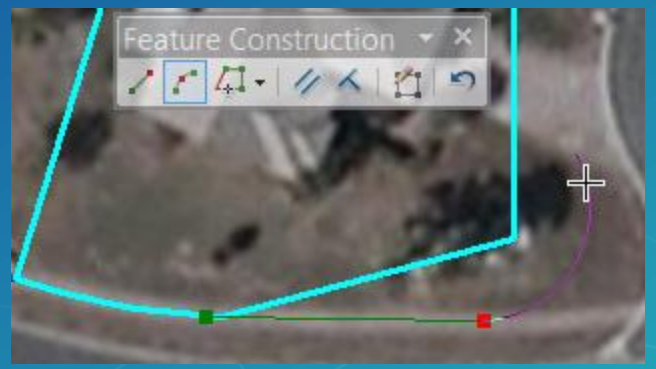


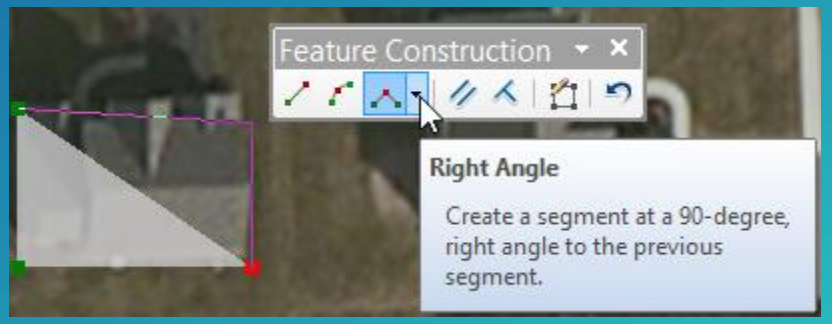
Unit	*Abbreviation*
Meter	m
Kilometer	km
Foot	ft (or ')
Mile	mi
Survey Foot	ftUS
Survey Mile	miUS
Decimal degrees	dd
Degrees minutes seconds	dms
Degrees decimal minutes	ddm

Switching construction methods mid sketch

- Use Editor or Feature Construction toolbar palette



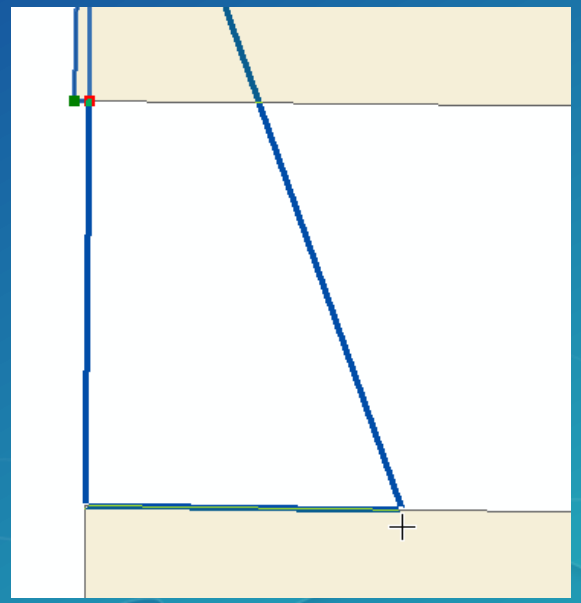


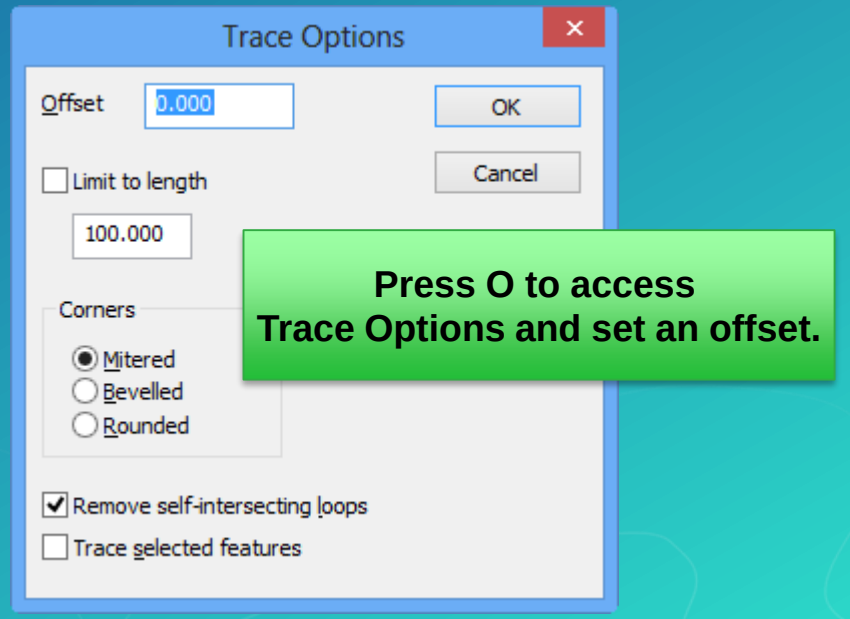


Press Tab to show or hide the Feature Construction toolbar.

Creating a sketch by tracing other features

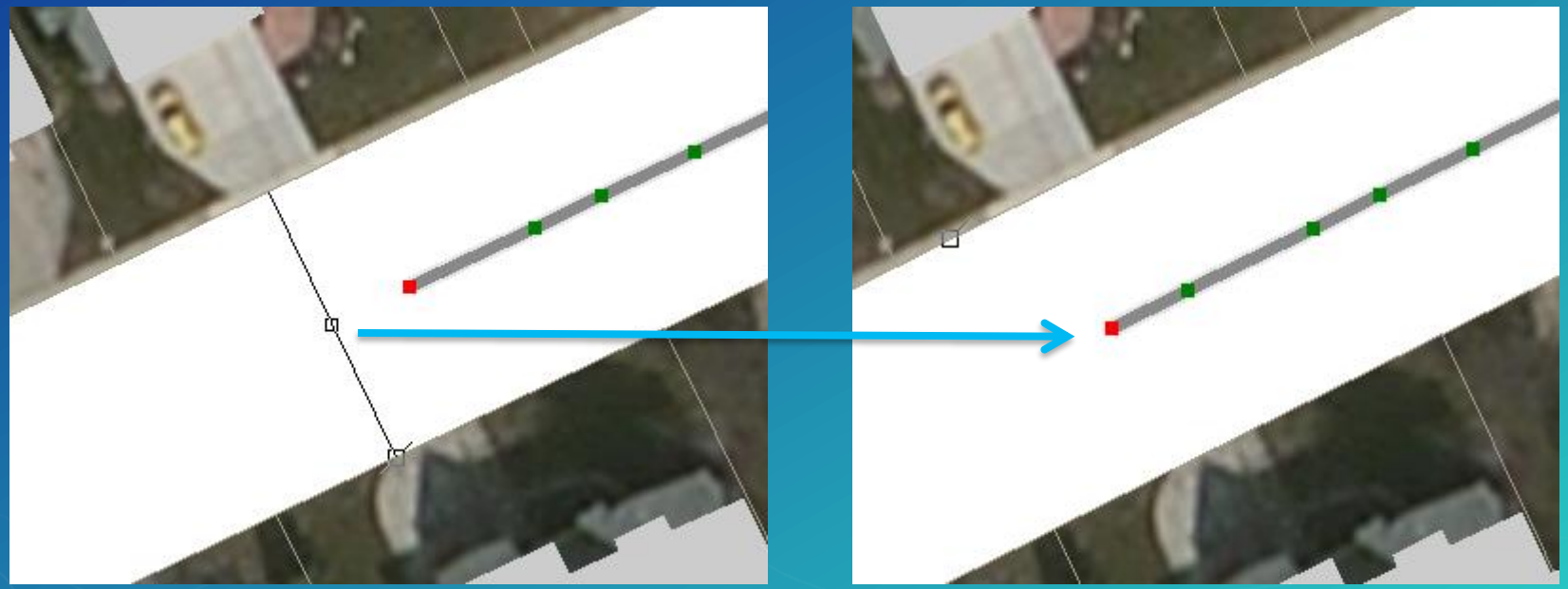
- Use Trace construction method
- Features do not need to be selected
  - Use Ctrl key to limit to trace to selected features
- Spans gaps and works on non-editable layers.





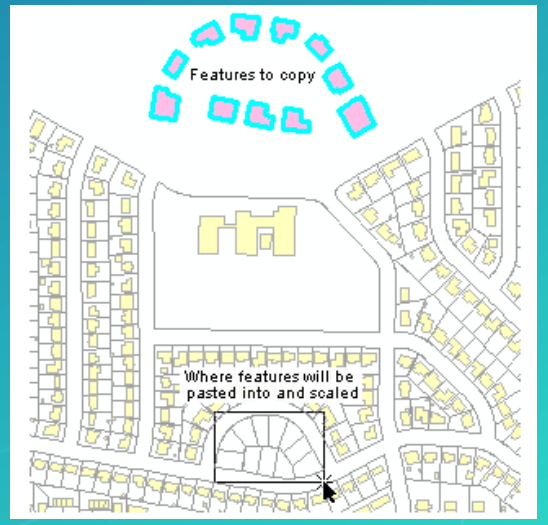
Creating a sketch at the midpoint of a line

- Use Midpoint construction method
- Click two points, vertex added at midpoint



Copying and pasting features

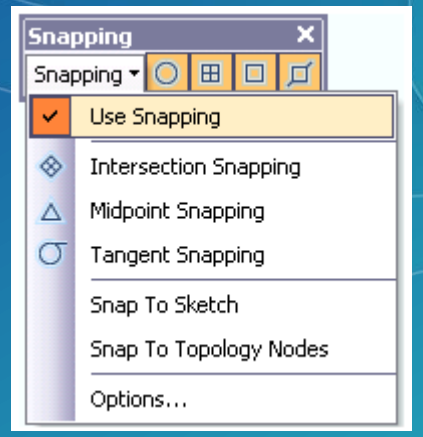
- Select features > Copy , Paste
  - Within same layer or between layers and types (such as polygon pasted as lines)
  - Can copy from non-editable layer, such as CAD
  - Attributes copied if schemas match
- Copy Features tool on Advanced Editing toolbar
  - Copy and scale features
- Copy Parallel on Editor menu
  - Creates new parallel lines at an offset

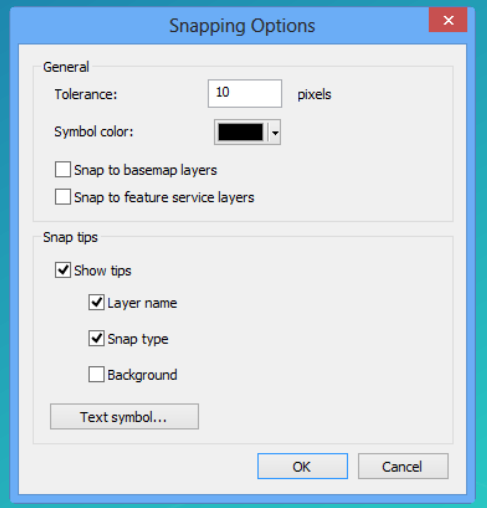


Using snapping

- **Snapping toolbar – simple**
  - Set tolerance on Snapping Options
  - Works with non-editing tasks (measure)
  - Snap to any visible layer
- **SnapTips**
  - pop-ups with layer name, snap type

- **Classic snapping**
  - fine-grained control over snapping
  - Enable on Editor Options





Temporarily suspend snapping by holding down the Spacebar.

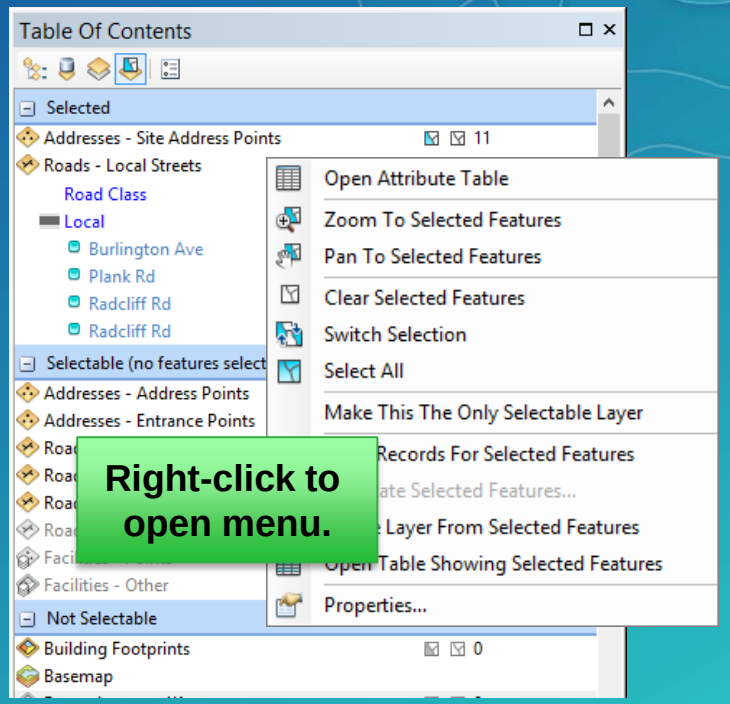
Editing on top of imagery

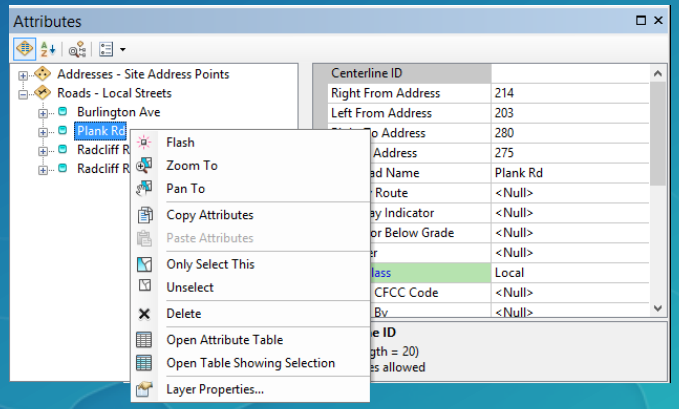
- **Editing Options**
  - Uncheck Use symbolized feature to see wireframes
  - Change edit sketch symbols
- **Snapping Options - SnapTips**
  - Turn on background and change text symbol

Editing features and attributes

Selecting the features you want

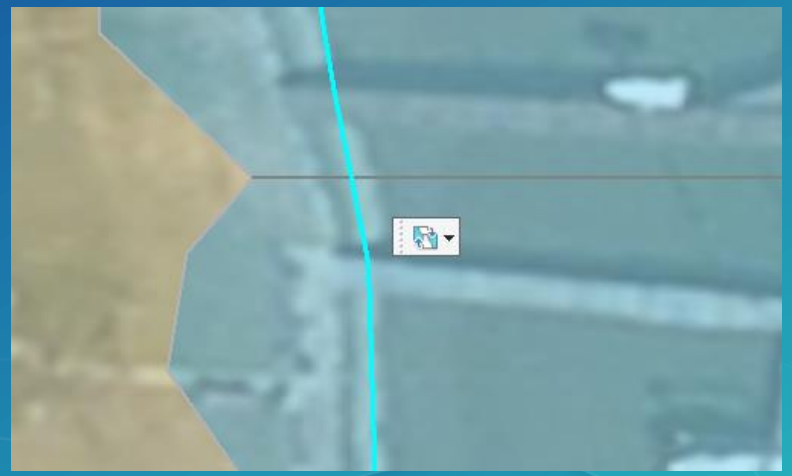
- **Table of contents – List By Selection**
  - Groups layers by selection info
  - Use icons to set selectable and visible layers
  - Deselect individual features in a layer
  - Clear all selections
- **Attributes window**
  - Deselect, navigate, copy attributes

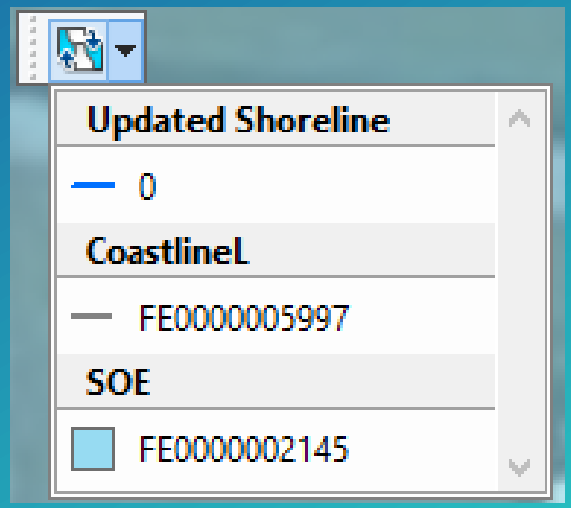




Selecting from overlapping features

- Click with the Edit tool to display selection chip
  - Only displays if you click the map. Dragging a box selects all overlapping features
  - Hover over feature in list to flash
  - Click feature in list to select it
  - Features listed by display expression

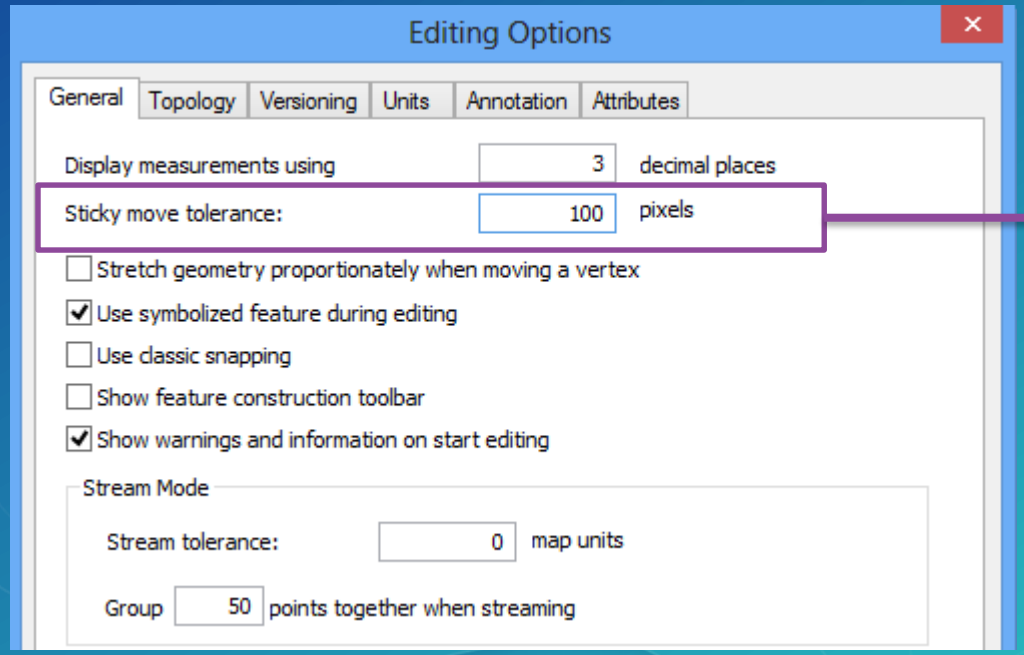


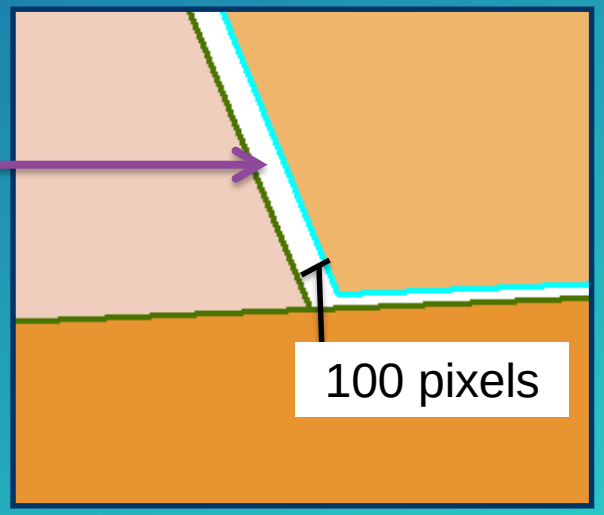


You can also press
N to cycle the selection
through overlapping features.

Preventing accidental feature movement when selecting

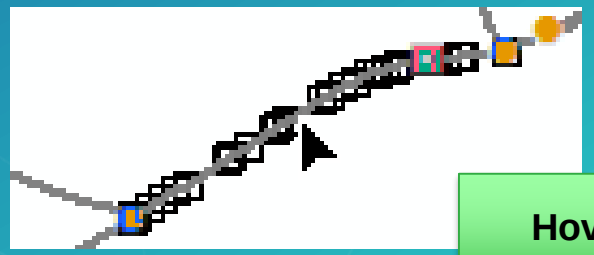
- Set the sticky move tolerance
- Editing Options > General tab
- Prevents feature movement within tolerance





Editing segments and vertices

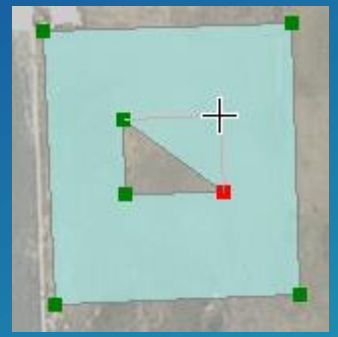
- Double-click feature with Edit tool or select it and use Edit Vertices on Editor toolbar
- Select, move, and delete multiple vertices
- Change segment types (straight, curved, Bezier)
- Select and delete parts of features



Hover over a feature and press V to show vertices.

Creating donut holes in polygons

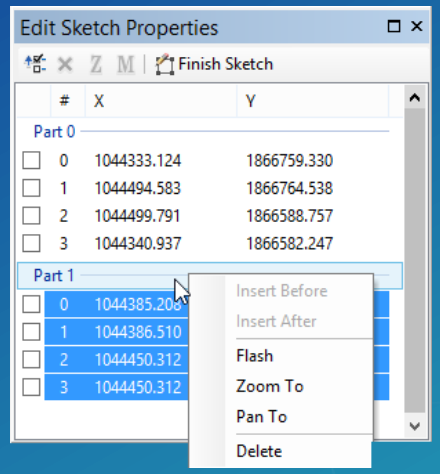
- When digitizing the feature initially
  - Right-click and click Finish Part
  - Digitize the hole and finish sketch
- Continue Feature
  - Available on the Edit Vertices toolbar
- Cutting hole to match another shape
  - Select polygon, use Cut Polygons tool, and trace other feature
  - Can also use Editor menu > Clip with discard the area that intersects option

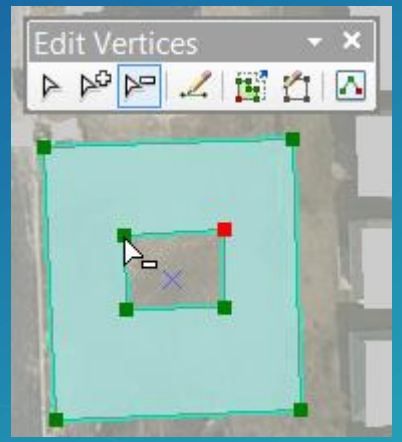


When clipping, turn off any polygon layers that you don't want to be clipped.

Removing donut holes in polygons

- Double-click feature to modify its shape
- Right-click feature > Part > Delete
- Can also open Edit Sketch Properties menu to delete

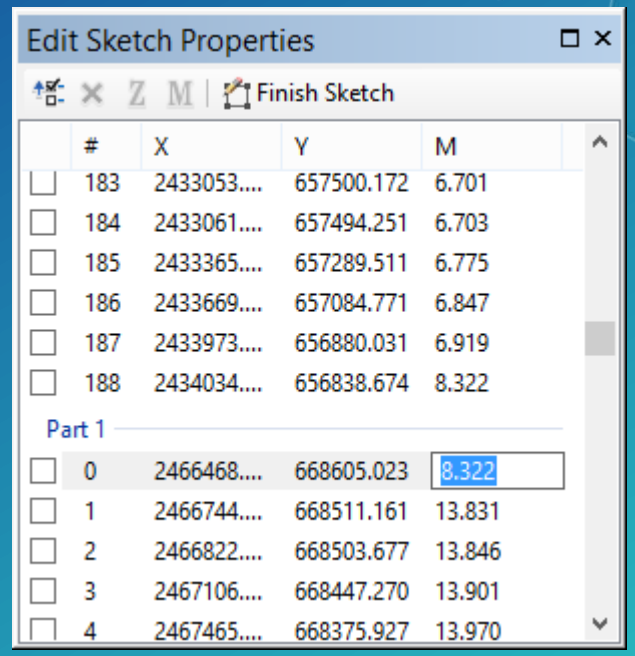




- Use Edit Vertices toolbar to delete vertices

Changing the coordinates of a feature

- Edit Sketch Properties window
- Right-click to insert,
  delete, zoom to vertices
- Edit X,Y, M, and Z values



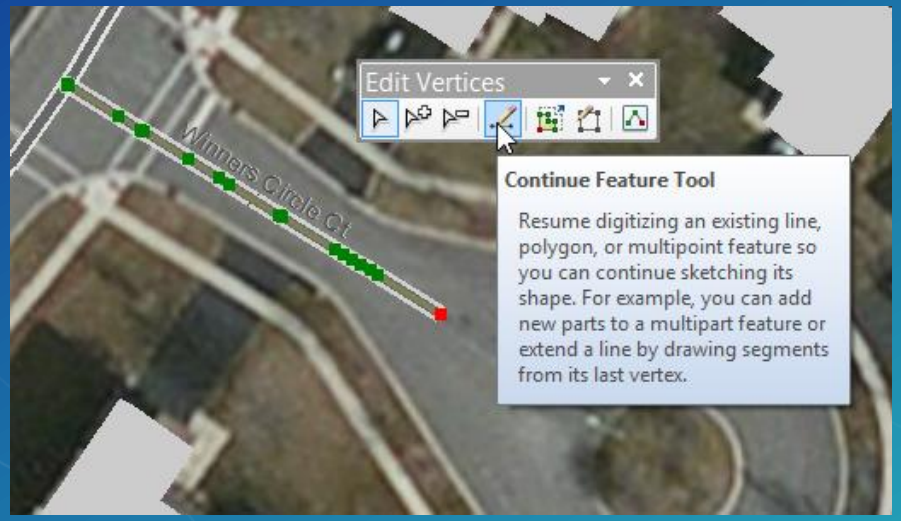
Flipping the direction of a line

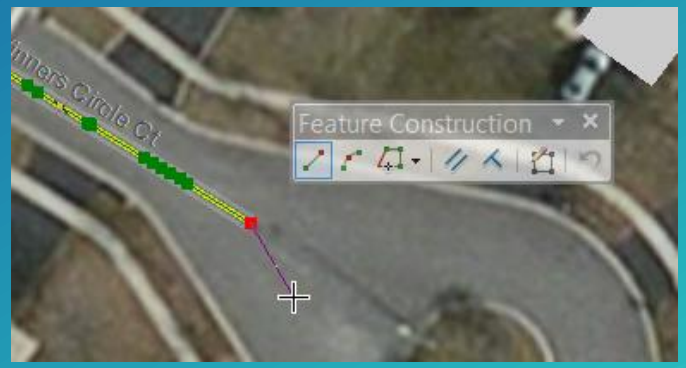
- Editing geoprocessing toolbox > Flip tool
  - Works on selected features or whole layer
- Flip command on Edit Sketch context menu
  - Double-click feature
  - Right-click > Flip

Editing toolbox requires a Standard or Advanced license.

Extend an existing line by sketching

- Continue Feature tool on Edit Vertices toolbar
  - Double-click feature to modify
  - Click Continue Feature
  - Enter sketch mode—constraints and constructors available

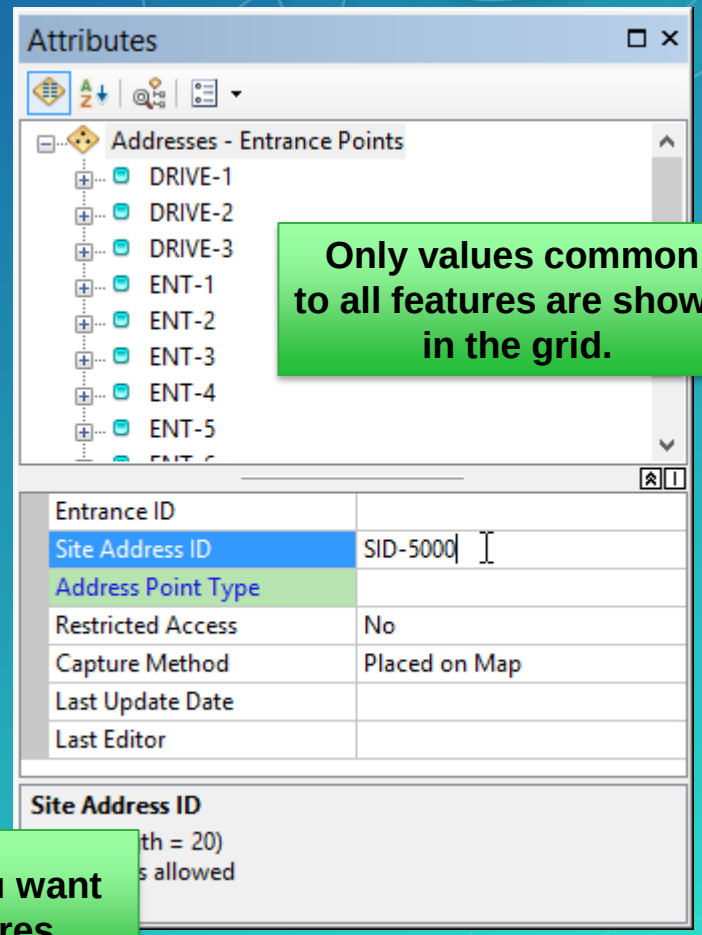




Use Continue Feature to add parts to a multipart polygon.

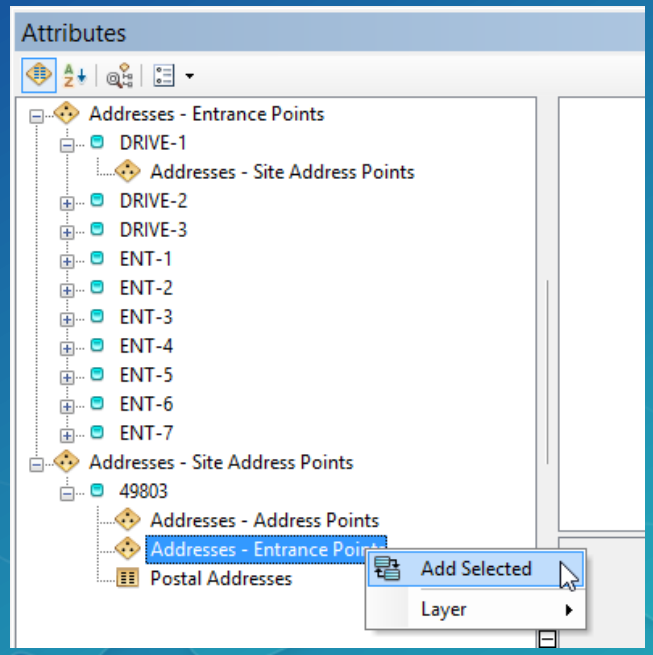
Updating attributes of multiple features at once

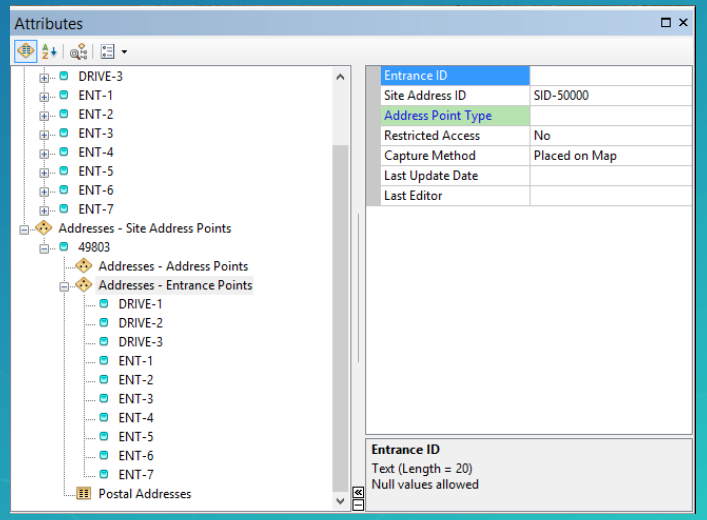
- Select features and open Attributes window
- Click layer name in tree to update all in layer
- Ctrl or Shift in tree to update multiple features
- Click field and type values
- Can also update attributes of related features or records



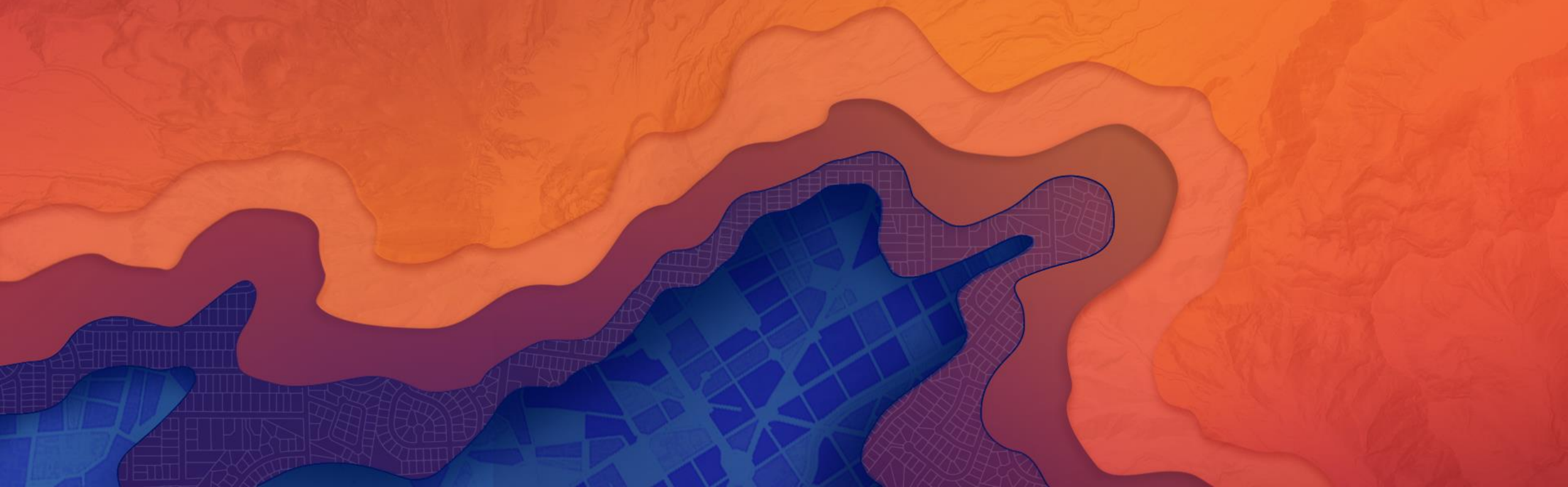
Adding selected features to a relationship

- Select features
- Set primary key on primary feature
- Right-click relationship label > Add Selected
- Foreign key on related features is set automatically



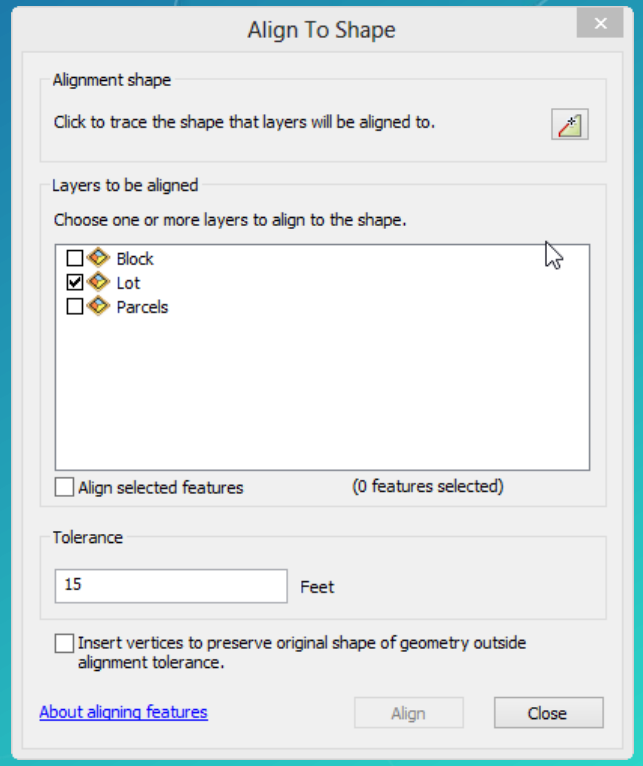


Aligning and editing coincident features



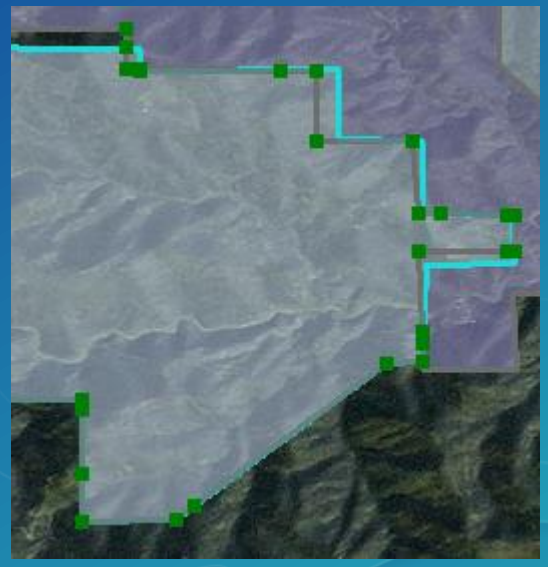
Aligning data to a shape you trace

- Align to Shape on Advanced Editing toolbar
  - Trace adjacent features to align to
  - Choose which layers will be updated
  - Specify buffer tolerance
  - Preview



Replacing a feature's geometry

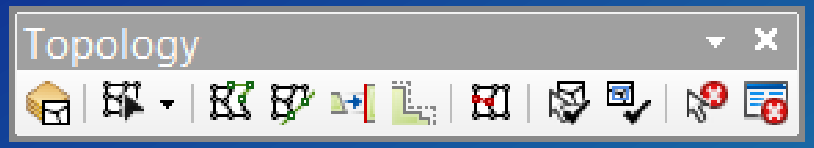
- Replace Geometry on Advanced Editing toolbar
  - Maintains ObjectID and attributes of original feature
  - Original shape displayed for reference: can snap or trace to it
  - Use Reshape Feature instead if you need to modify only a portion



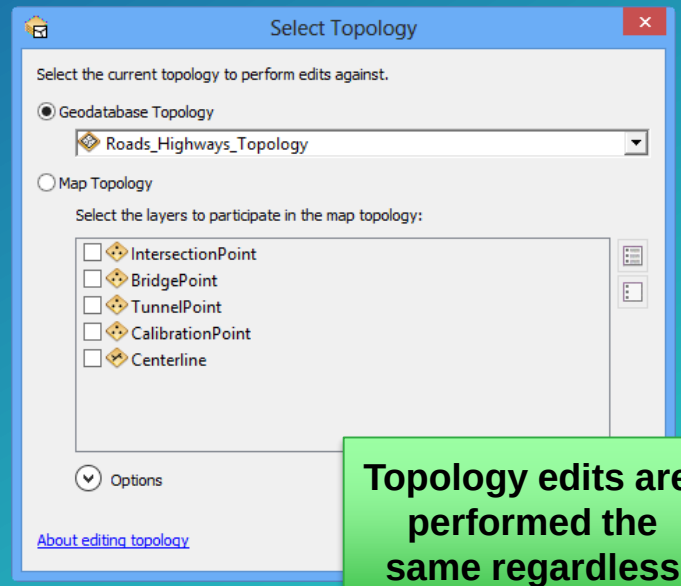
Also works to add a shape to null geometry, such as addresses that could not be matched when geocoding.

Editing coincident features with topology

- Use Topology toolbar to edit coincident features



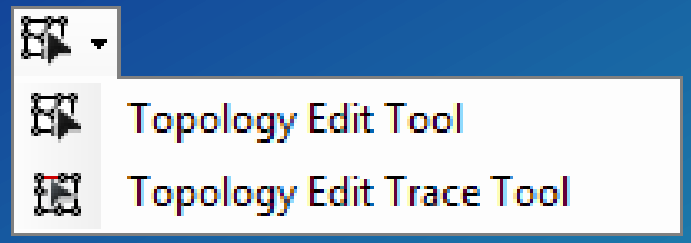
- Two types of topology in ArcGIS
  - Map topology
    - Simple way to edit connected features
    - Geodatabases or shapefiles
    - All licenses, built from Topology toolbar
  - Geodatabase topology
    - Rules about how features share geometry
    - Requires Basic or Advanced license, built in Catalog window



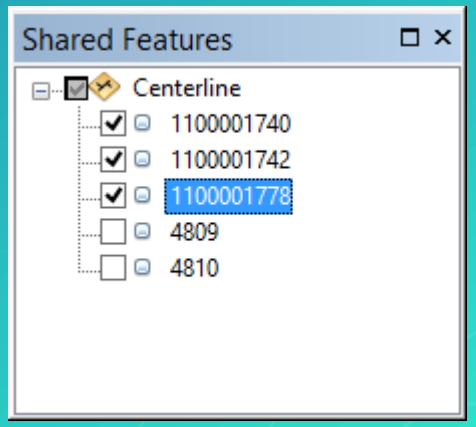
Topology edits are performed the same regardless of type.

Selecting topology edges

- **Topology Edit tool**
  - Drag or use Topology Edit Trace tool to select multiple connected edges

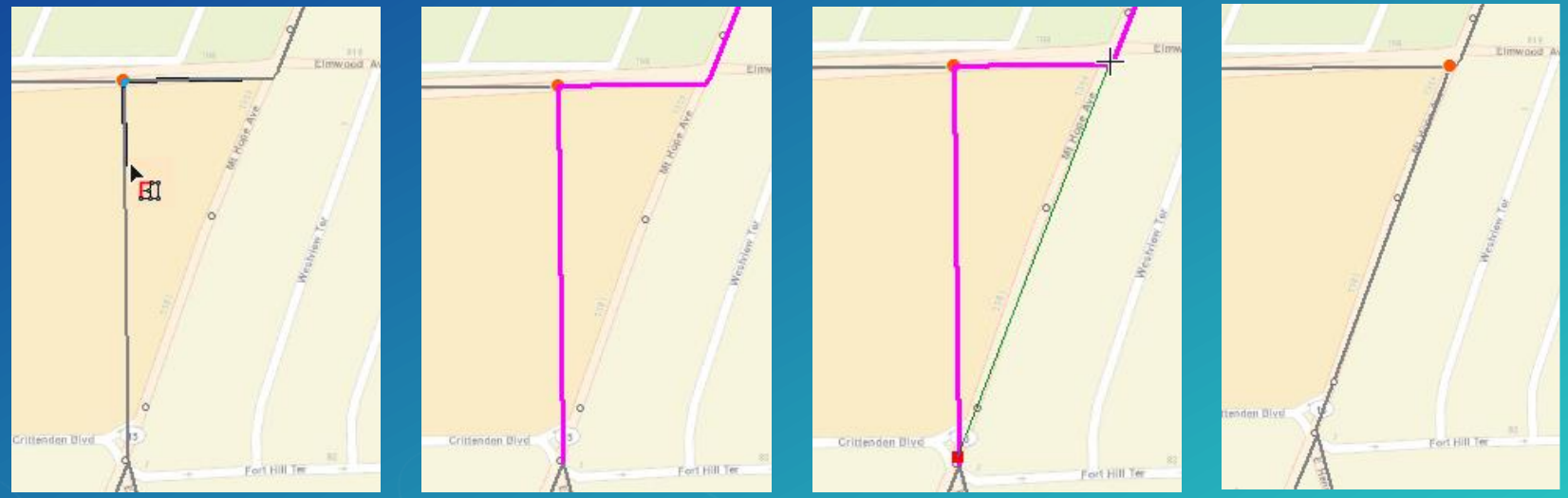


- **Shared Features window**
  - Lists features the connected to the selected edge
  - Uncheck layers or features so they are not affected by edits (temporary)



Reshaping multiple topology edges

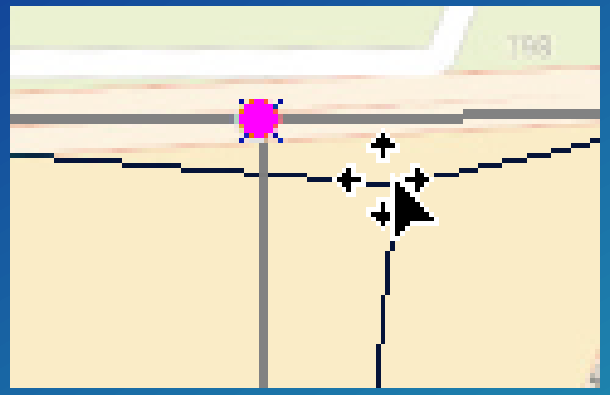
- Reshape Edge tool to update connected edges
- Use Topology Edit Trace tool to select edges



Reshape Edge works on multiple edges.
Modify Edge is one edge at a time.

Moving topology edges

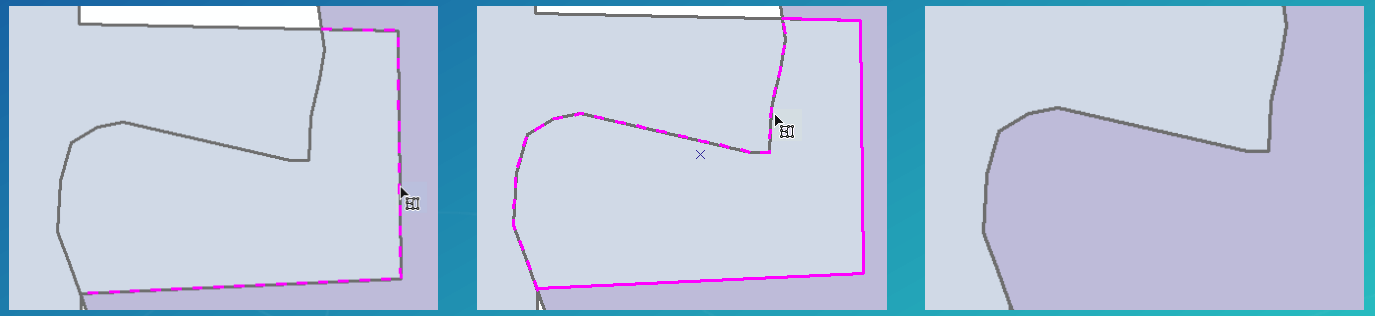
- Drag selected topology elements to move all coincident features at once



- Move an edge and reconnect it (“split-move”)
  - Select edge, then drag and snap endpoint at new location

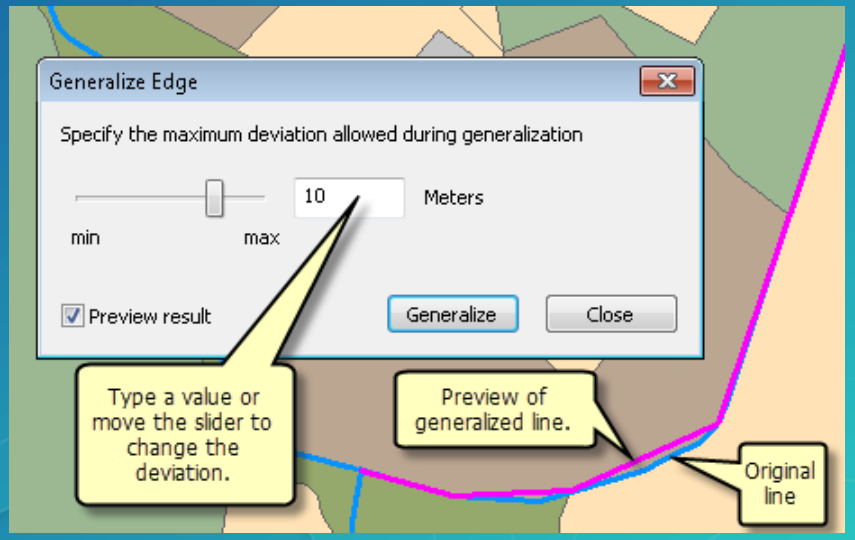
Aligning an edge to match another edge

- **Align Edge tool**
  - **Match edges quickly so they are coincident without having to reshape manually**
  - **Two clicks: click edge to update and then click edge to align to**

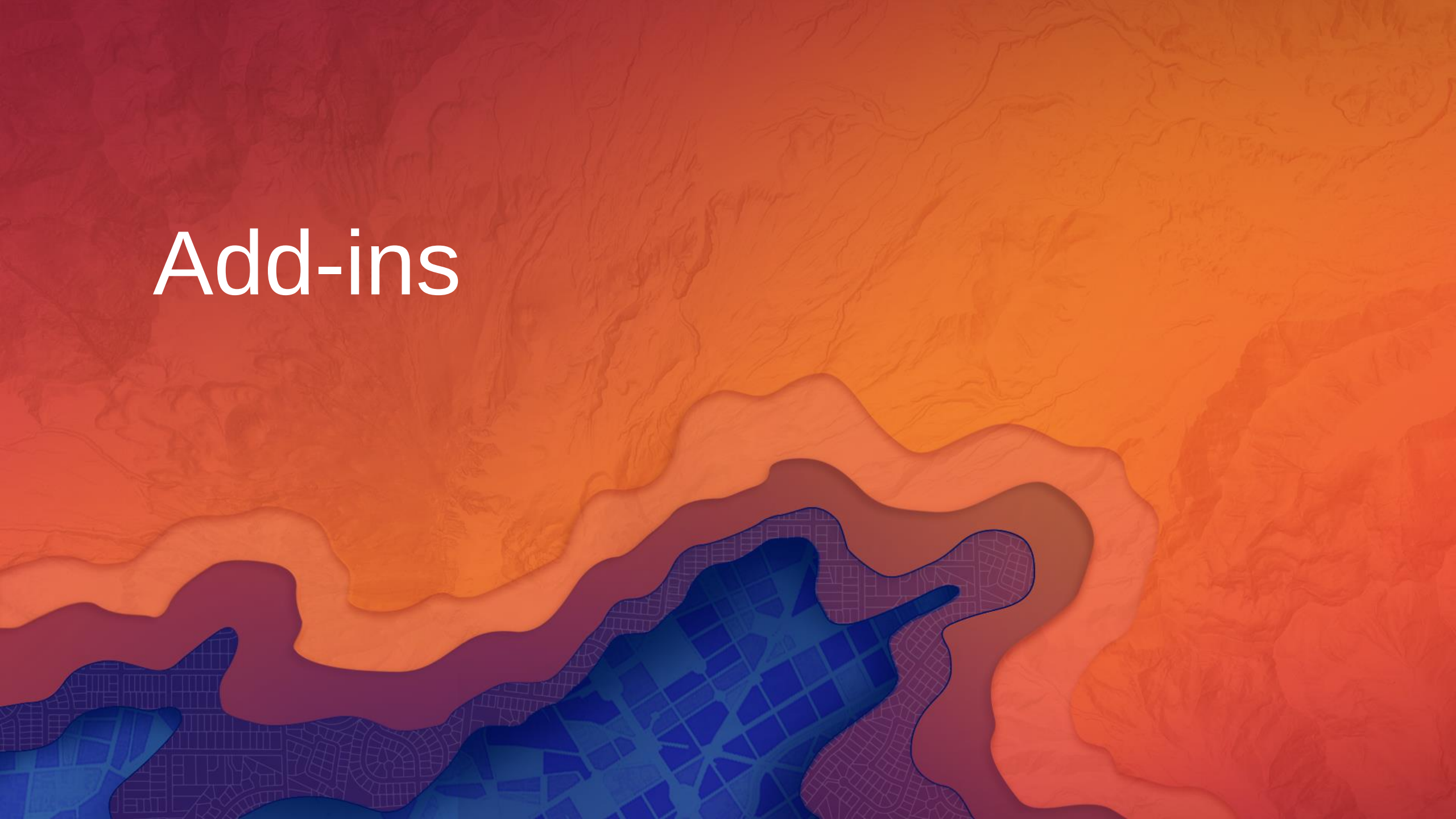


Simplifying the shapes of edges

- Reduce vertex count, integrate features of different resolutions, remove true curves
- Generalize Edge tool
  - Only way to simplify and maintain coincidence
  - Select one or more edges, set deviation, and preview

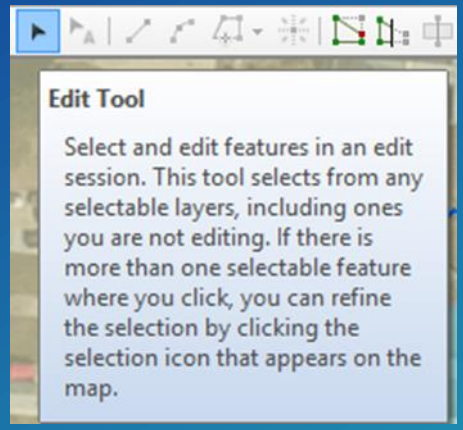


Add-ins



Getting more help

- Context-sensitive help
  - Hover over tools for tooltips
- Resources
  - Help: Desktop > Editing data
  - ArcGIS Blog: Editing category
- Training
  - Editing Data with ArcGIS for Desktop



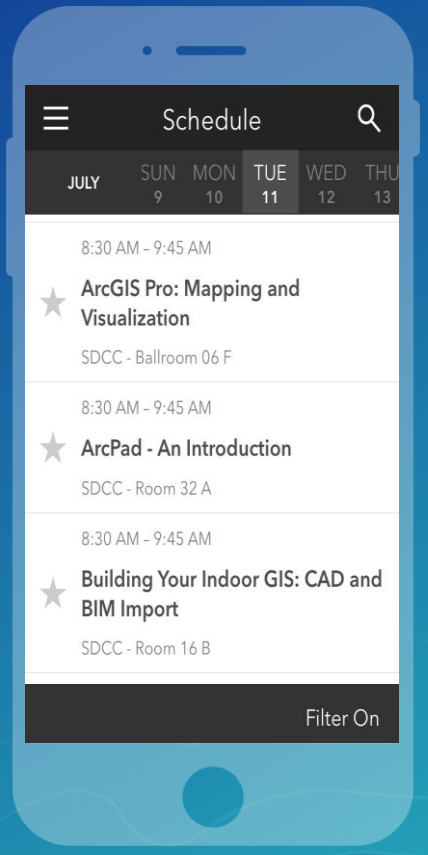
ArcGIS Desktop Editing – Technical Workshop Schedule

- **ArcGIS Pro Editing: An Introduction**
  - Tuesday 7/11, 10:15 AM – 11:30 AM, SDCC - Ballroom 06 A
  - Wednesday 7/12, 10:15 AM – 11:30 AM, Hilton - Sapphire Ballroom E
- **ArcGIS Pro: 3D Editing**
  - Wednesday 7/12, 8:30 AM – 9:45 AM, SDCC - Ballroom 06 B
  - Thursday 7/13, 8:30 AM – 9:45 AM, SDCC - Ballroom 06 B
- **ArcMap Editing: Tips and Tricks**
  - Tuesday 7/11, 3:15 PM – 4:30 PM, SDCC - Ballroom 06 A
  - Wednesday 7/12, 10:15 AM – 11:30 AM, Hilton - Sapphire Ballroom I
- **ArcGIS Pro: Data Alignment and Management**
  - Wednesday 7/12, 3:15 PM – 4:30 PM, SDCC - Ballroom 06 C
  - Thursday 7/13, 10:15 AM – 11:30 AM, SDCC - Ballroom 06 B

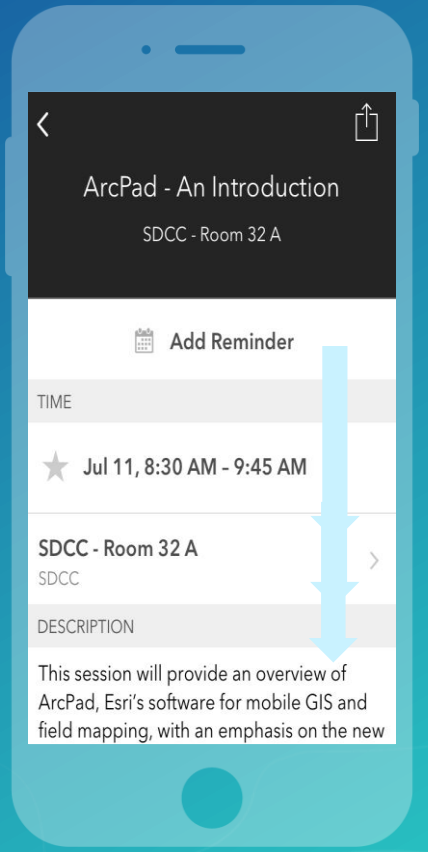
Please Take Our Survey on the **Esri Events App!**

Download the Esri Events app and find your event

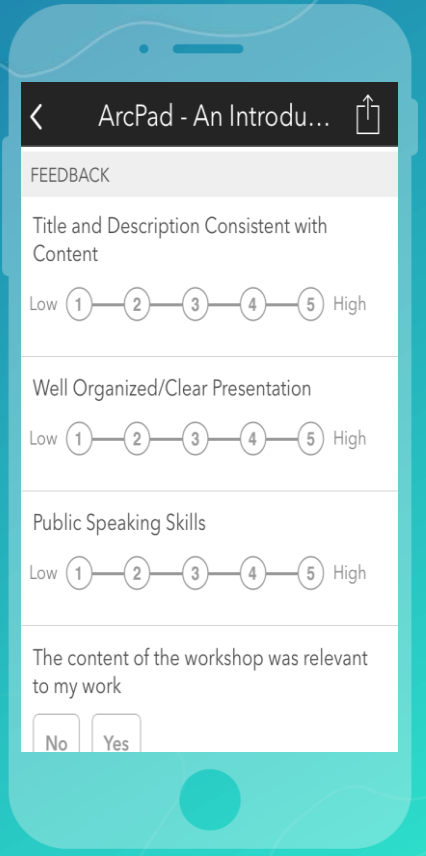
Select the session you attended



Scroll down to find the survey



Complete Answers and Select "Submit"



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