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2022 ESRI USER CONFERENCE

# ArcGIS API for JavaScript:  Web Editing

Heather Gonzago, Jose Banuelos, and Larry Young

# In-Person Digital Q&A Tool

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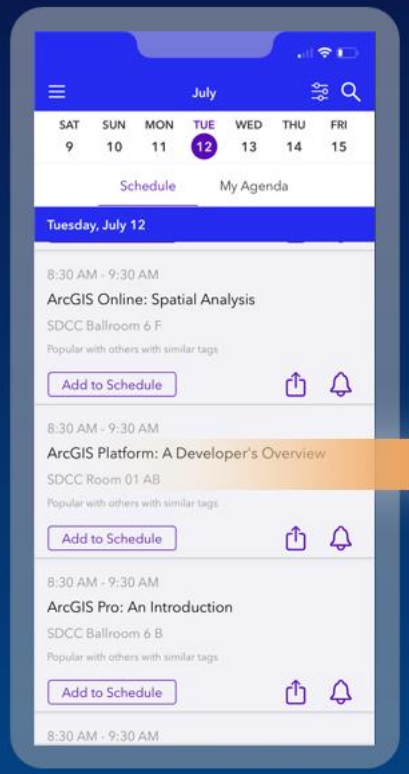
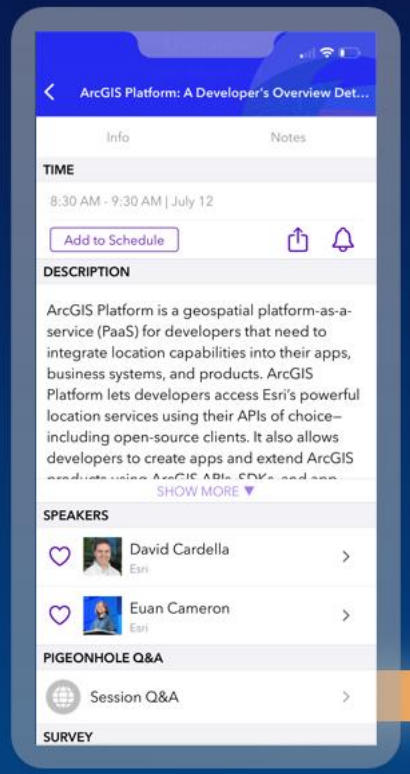



Click on the Pigeonhole Session Q&A link

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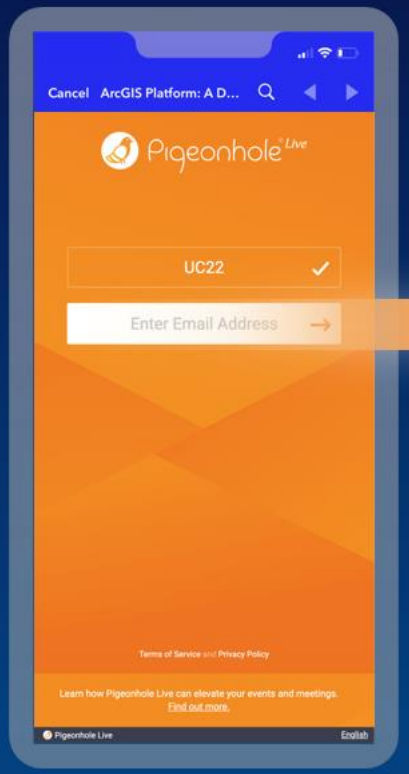
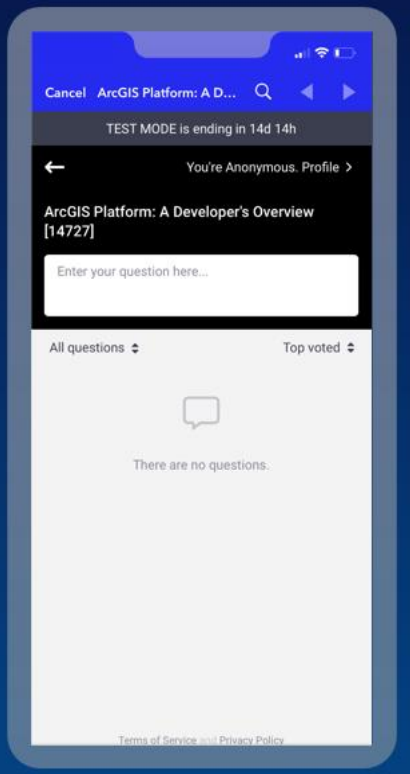



Start asking questions!



Slides available at
https://links.esri.com/UC22-web-editing

# Session Agenda

- What are you looking for when editing?
- What's currently out there?
- Goals for Web Editing with JavaScript API
- Workflows and Examples

# What are you looking for when editing?

- Historically the approach has been targeted apps
  - Addressing specific workflows
  - Simplicity – bottom line is make it easy for end user
  - Organizations struggling to maintain trained staff, so simple becoming even more important
- Getting some requests that are more generic (i.e., just give us everything)
  - Complete ArcGIS Online based solution for managing parcels, utilities, addresses, etc.
  - Organizations looking for easier deployment options. Don't want to have to update software on every machine
- Organizations also looking to go all in on cloud
  - Everything in ArcGIS Online
  - All view, query, editing and analysis through web (and sometimes mobile) applications

# What are you looking for when editing?

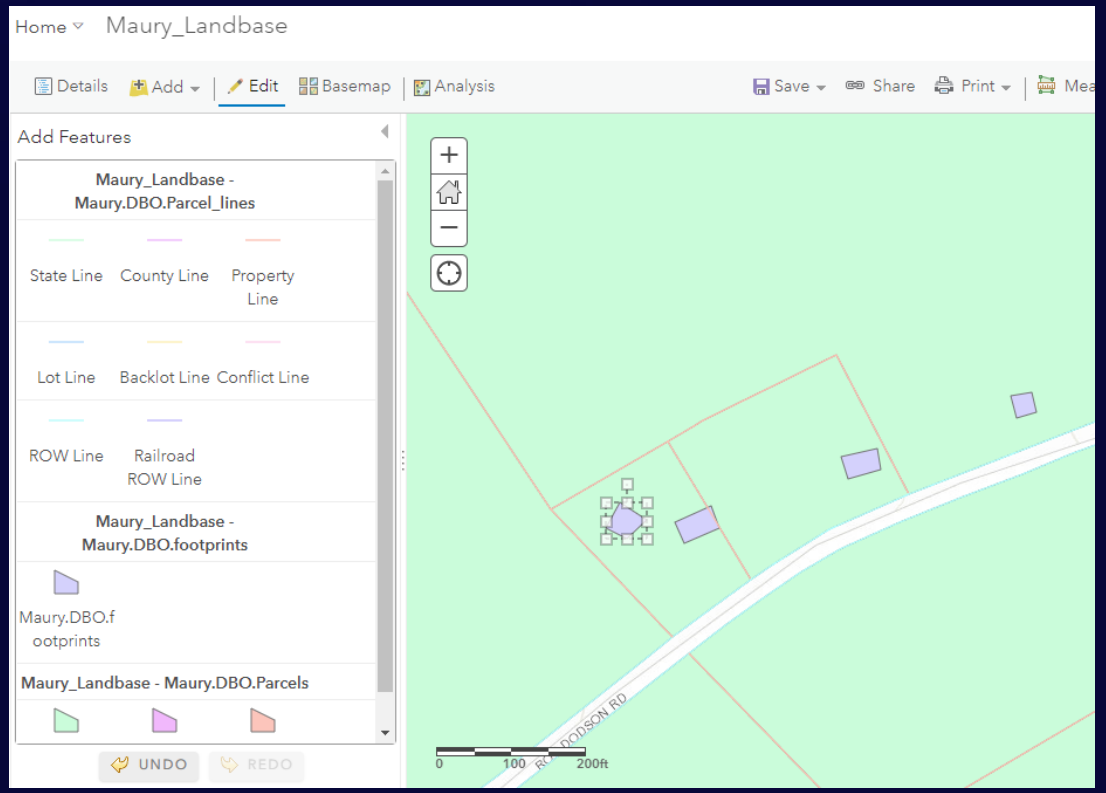
- Users are looking for:
  - Usability for non-GIS people
  - Add features with minimal clicks
    - Add multiple features with a single sketch
  - Snapping
    - Configured on back end with fewer options for end user
  - Auto-closure of polygons (don't let me create slivers/gaps)
    - Create polygon for whole area and then chop up instead of adding the pieces one by one and hope you don't get gaps
  - Edit related records
  - Copy/paste for simplicity of creating new features
  - Split and Merge tools with attribute update
  - Attribute rule/Field expression capabilities

# What are you looking for when editing?

- What do you want?
  - Targeted apps or everything?
  - Applications or widgets?
  - Configuration at back end or by end user?
  - Task frameworks or sets of tools/widgets?

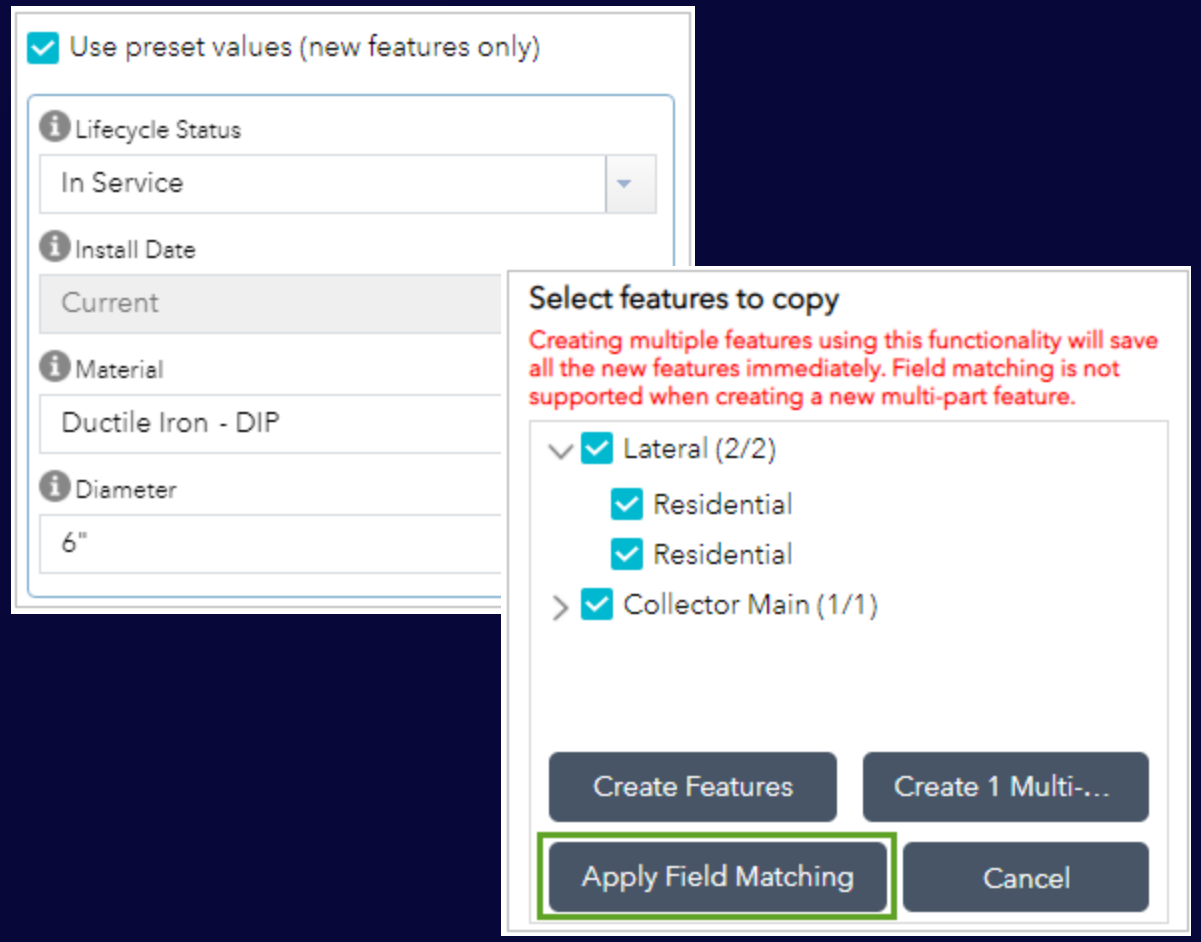
# What's currently out there?

- Classic Map Viewer Editor
  - Add features
  - Edit attributes
  - Add/update attachments



# What's currently out there?

- Editor Widgets for Web App Builder
  - Edit widget
    - Specify editable layers
    - Add features via templates
    - Snapping
  - Smart Editor widget
    - Configure editable fields
    - Automatically calculate fields
    - Global attribute values (set once and apply to all new features)

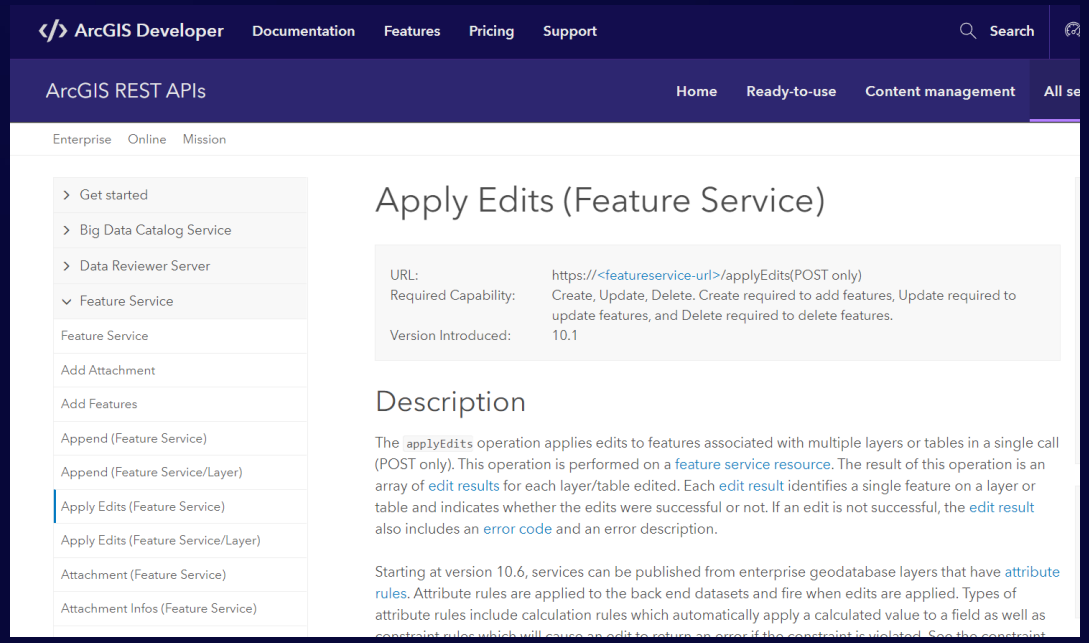


# What's currently out there?

- SceneViewer Editor
  - Work with 2D and 3D features
  - Move, scale, and rotate geometries, as well as edit vertices
  - Configurable attribute editing (choose fields to edit, arrange in groups, etc.)

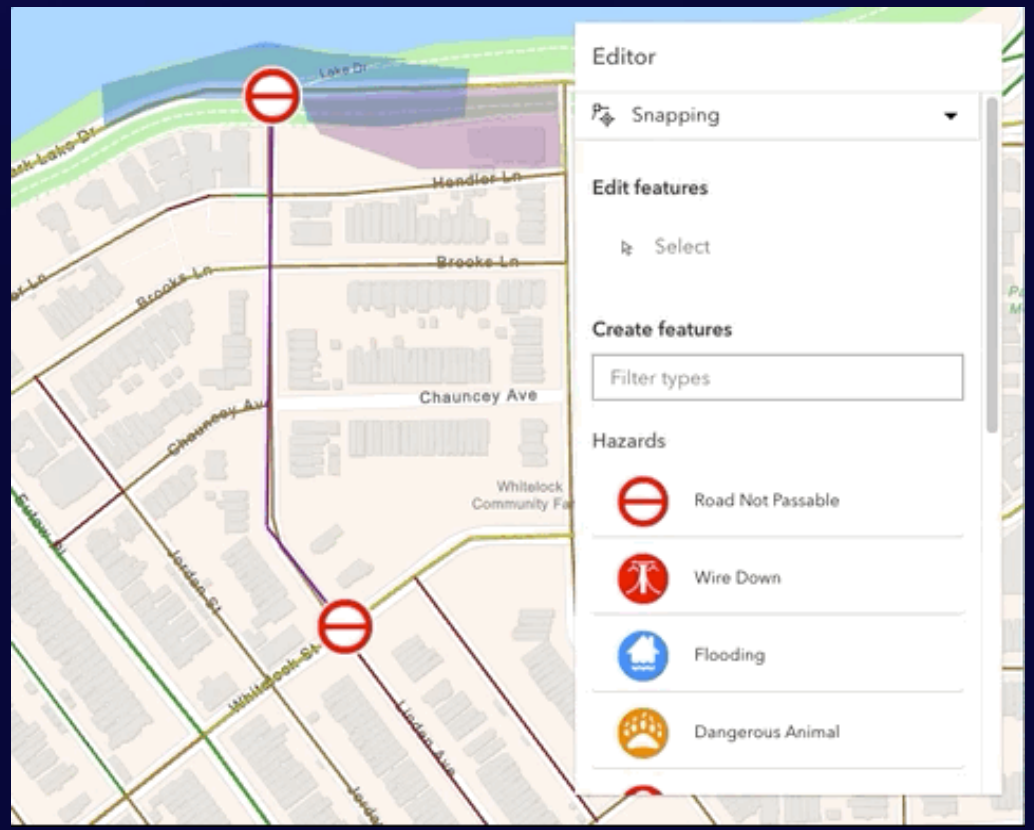
# What's currently out there?

- REST API



# What's currently out there?

- REST API
- ArcGIS JavaScript API
  - FeatureLayer.applyEdits()
  - Editor widget!



# What's currently out there?

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- Experience Builder

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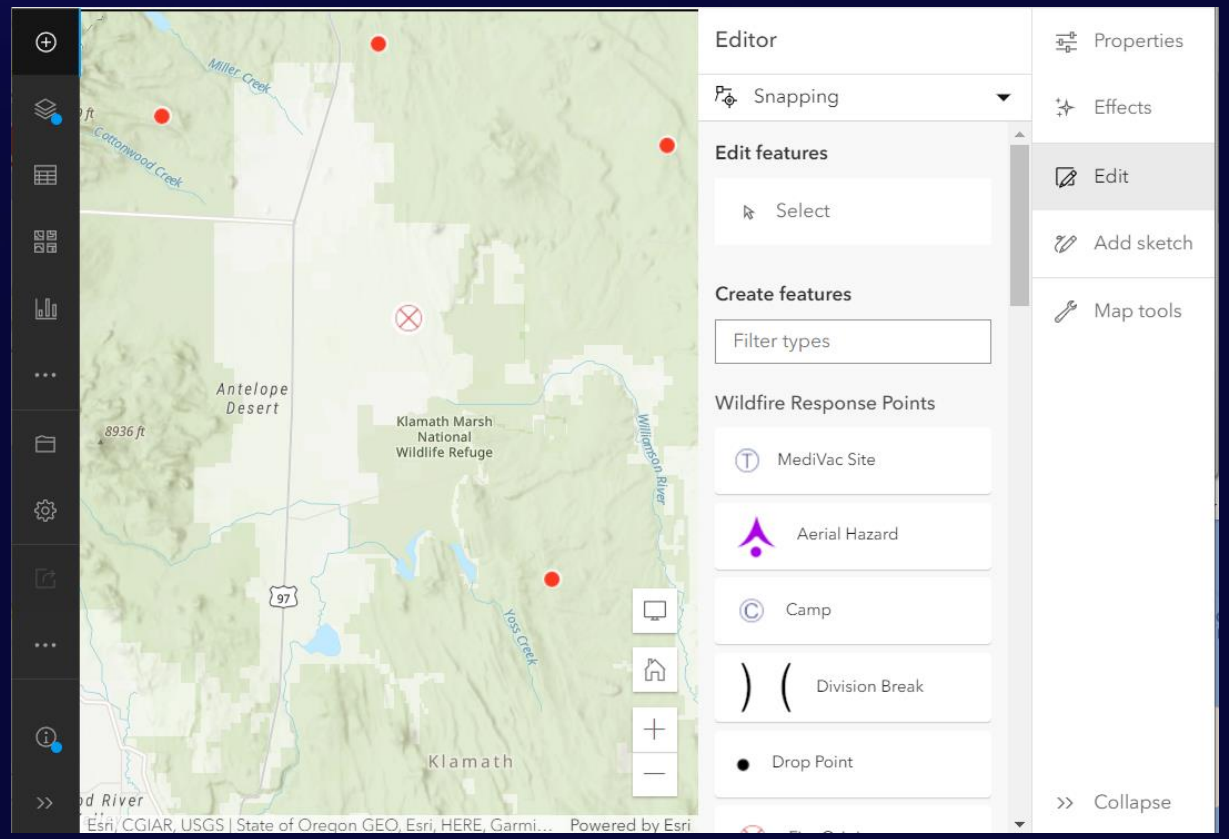
- Map Viewer



# What's currently out there?

- Solutions
  - Utility Management solutions (Stormwater, Water, and Electric Distribution)
  - Parcel Management solution
  - Park Asset Management
- Partner/Distributor Apps
  - ArcGIS Marketplace
    - Search for"editing" or "web editing"

Parcel Drafter

This solution can be used to enter metes and bounds descriptions, verify deeds and documents, and confirm survey information prior to submission.

Learn more →

# Goals for Web Editing and JavaScript API

## Configurable Editing Capabilities

- There is a need for a configurable editing experience
  - Apps (Viewer, more?), widgets (Experience Builder and API), and API capabilities where users can configure focused editing experiences
  - Supports a configurable task-based workflow
- Framework to support advanced editing workflows for utility networks, parcel fabrics, geodatabase topologies, etc.

# Goals for Web Editing and JavaScript API

2nd half of 2022

- Rule based snapping
- Version Management experience
- Undo/Redo
- Async support for form fields using Arcade expressions , ie. $featureSet support
- Tooltip feedback integration
- Better support for server-side Attribute Rules
  - Updating other layers based on an edit from the client

# Goals for Web Editing and JavaScript API

## Long Term

- Support for curves
  - Display and editing
- Display Filters on SubtypeGroupLayers
- Batch attribute editing
- Group and Preset feature templates
  - Create multiple features at one time
- Dimensions & Annotations
- Editing related records
- Support for auto save while editing
- Planar Topology and shared edge editing
  - Rubberband style editing where moving one features moves other features

# Goals for Web Editing and JavaScript API

## Long Term

- Integrated Utility Network Editing
  - Associations
    - Creating associations
    - Structural attachments
    - Connectivity associations
    - Containment associations
  - Tools for building Utility network topology (validation) and tracing
  - Tools for validating subnetworks

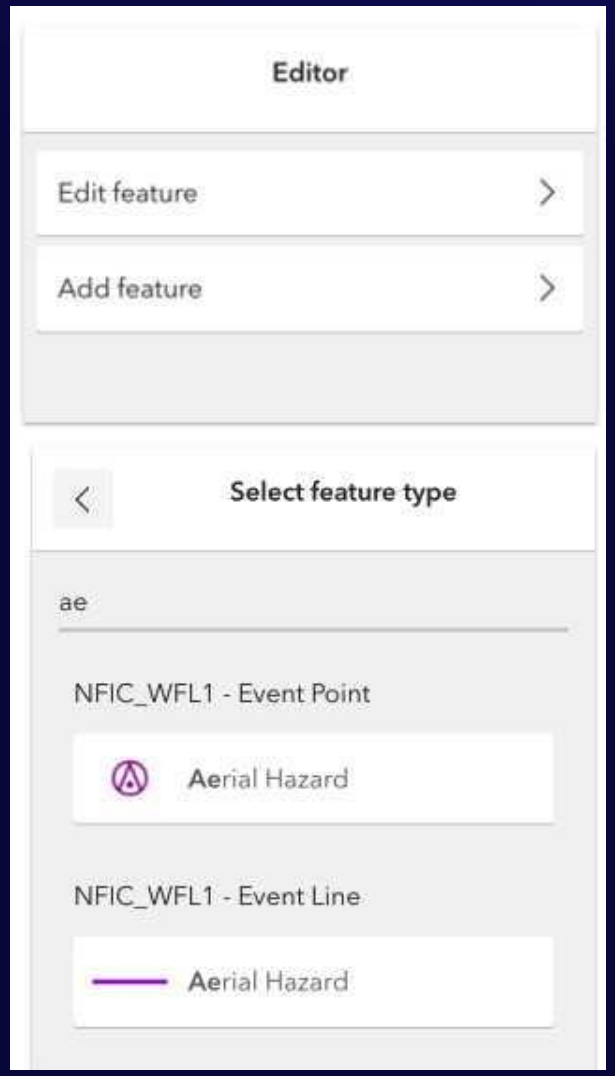
- Editing of Parcel Fabric

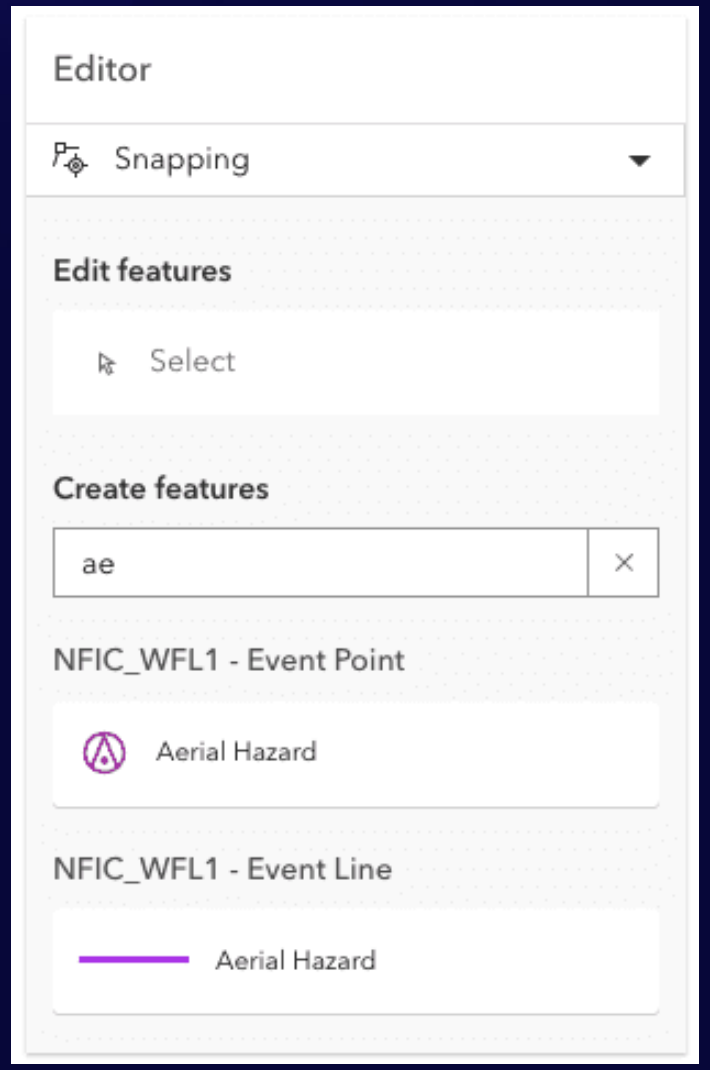
# JavaScript API Workflows and Examples

# Where to begin?

- New to the API or just need a refresher?
- SDK documentation
  - Release notes
  - API reference
  - Samples

# Updated Editor UI with additional capabilities

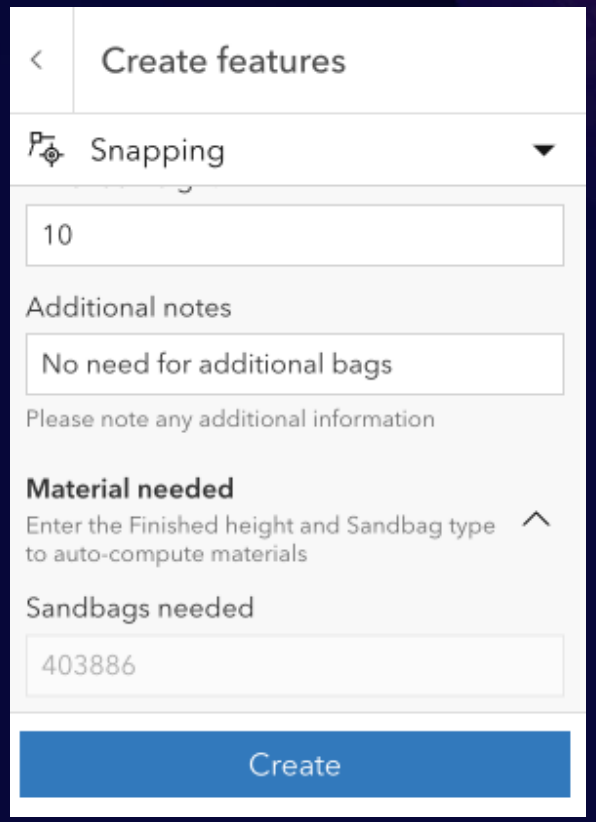


# Feature Form

- Displays attributes of a feature
- Configure input fields for attribute editing
- Format via the FormTemplate
- Support for calculated Arcade expressions
    - Field visibility
    - Required expressions
    - Field value expressions
- Configure form in webmap and read automatically
- Configure form in saved layer and read automatically

displays attributes of a feature.

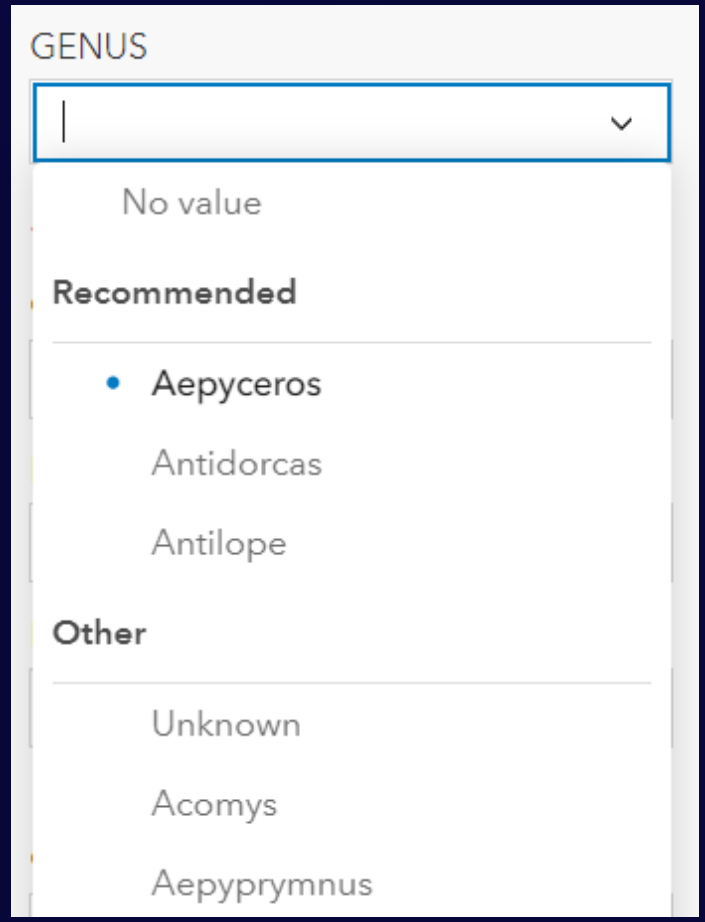


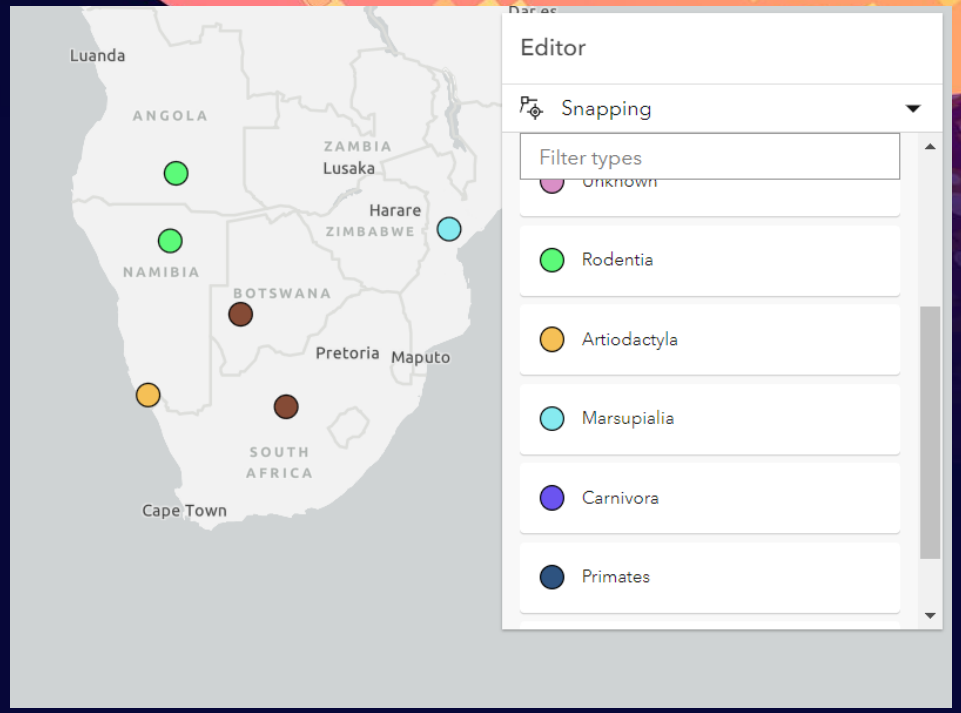

# Feature Form Demo

Heather Gonzago

# Contingent Values

- A field value becomes dependent on the values in one or more other fields.
- Restrict the list of valid inputs
- Helps preserve data integrity



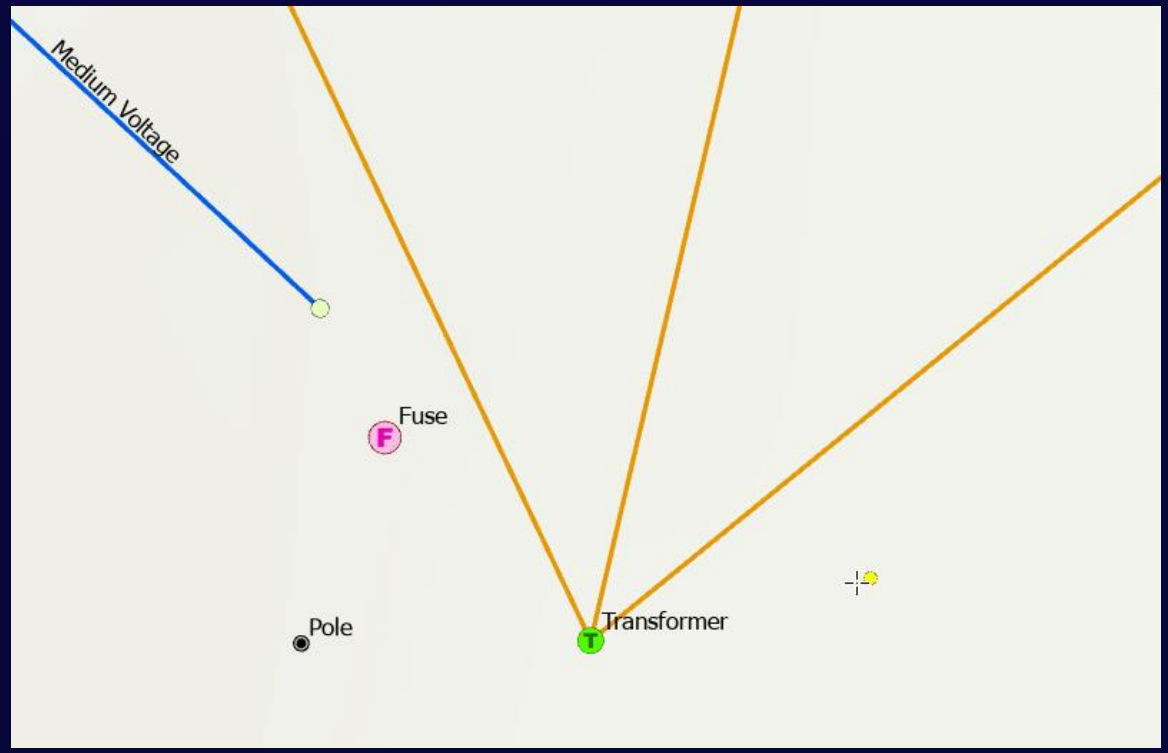


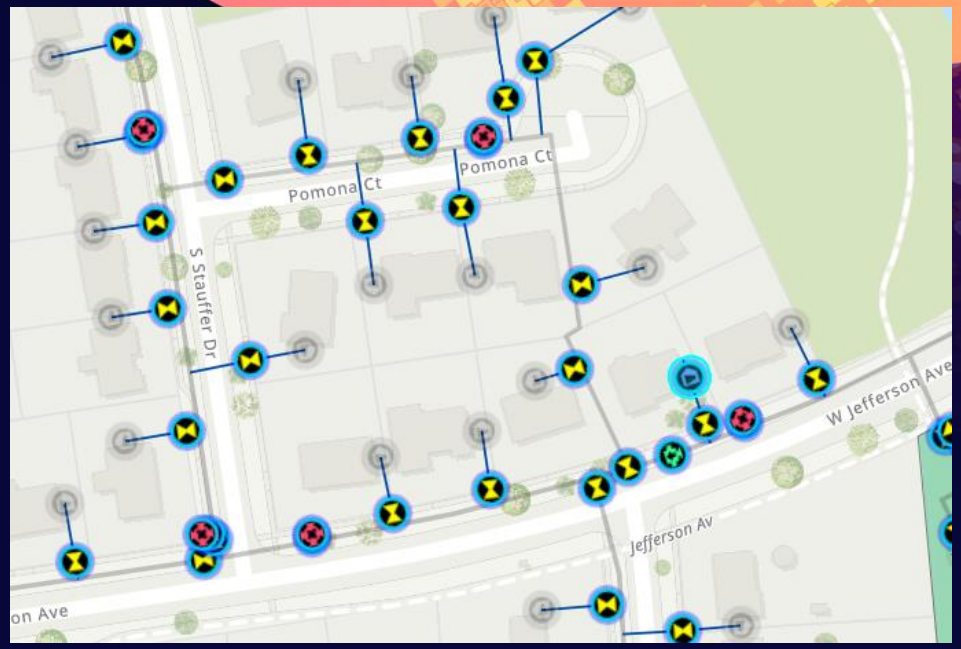

# Contingent Values Demo

Jose Banuelos

# Network Snapping Rules

- Connectivity rules define which features can be geometrically coincident or associated.
- There are three types of connectivity rules:
  - Junction-junction
  - Junction-edge
  - Edge-junction-edge






# Network Snapping Rules with Editor Demo

Jose Banuelos

# Q & A

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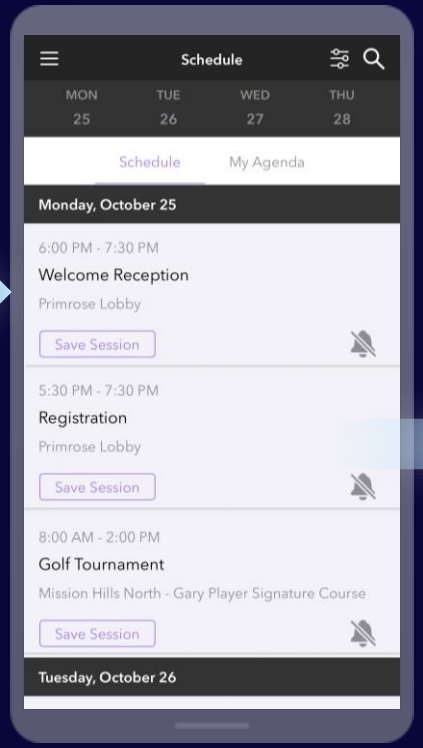


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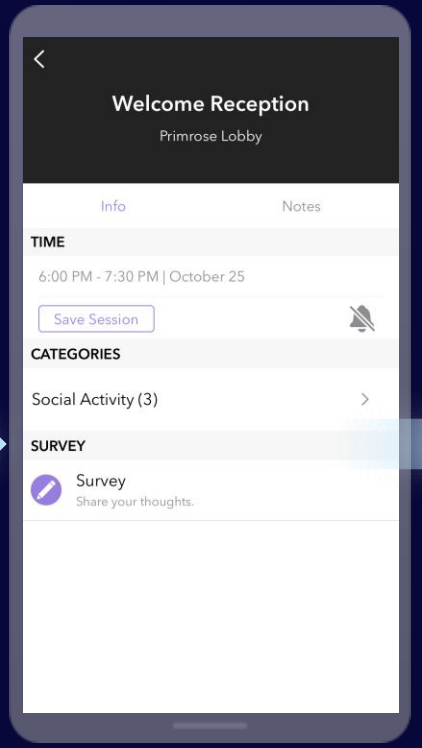


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