ArcGIS API for JavaScript: Working With Your Data with the Feature Layer

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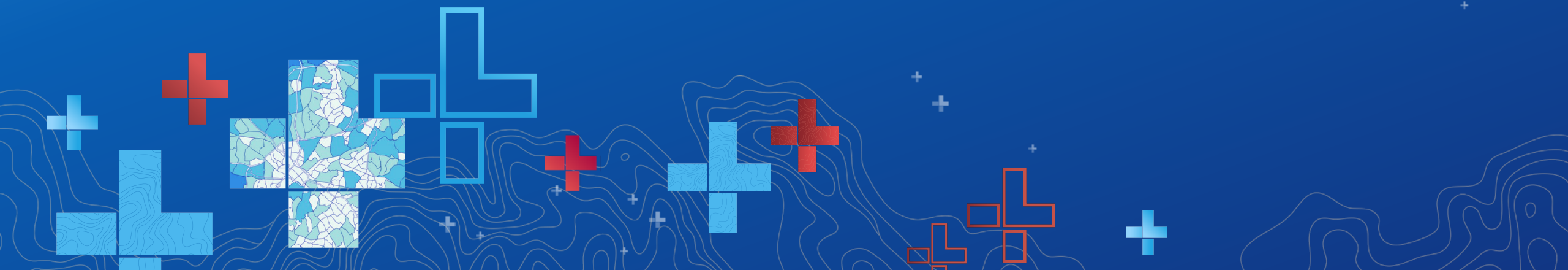


Topics covered

- Types of feature layers
- Feature Layer powered by dynamic feature tiles
- Visualization styles
- Popups to communicate information
- Bringing portal feature layer into your app
- Labelling
- Query the data from the server
- Interact with the data in memory

Feature Layer powered by

- Feature Services
- Feature Collections
- Client side data
  - CSV: SDK sample
  - GeoJSON: Plenary

Feature Layer

- Feature Layer powered by dynamic feature tiles
- Visualization styles
- Popups to communicate information

Bringing a feature layer into your app

- FeatureLayer by URL

```
const layer = new FeatureLayer({
  url: "https://<url to my server>/FeatureServer",
  layerId: 0,
  renderer: { ... },
  popupTemplate: { ... },
});

map.add(layer);
```

Demo

Bringing a feature layer into your app

- Restrict data retrieved from the feature service
  - to work with a subset of features
  - to remove features with null attributes.

```
layer.definitionExpression = "STATE_NAME = 'California'";
```

Demo

Bringing a feature layer into your app

- FeatureLayer by portal item

```
const portal = new Portal({
  url: "https://jsapi.maps.argis.com"
});

const layer = new FeatureLayer({
  portalItem: {
    id: "bca022ee5d9440c9b60399ee4d809d9b",
    portal
  }
});

map.add(layer);
```

- Demo

Bringing a feature layer into your app

- Alternative: using Layer.fromPortalItem()

```
Layer.fromPortalItem({
  portalItem: {
    id: "82d8d8213afc4bb380bb16083735f573"
  }
})
.then((layer) => {
  map.add(layer);
});
```

- Demo

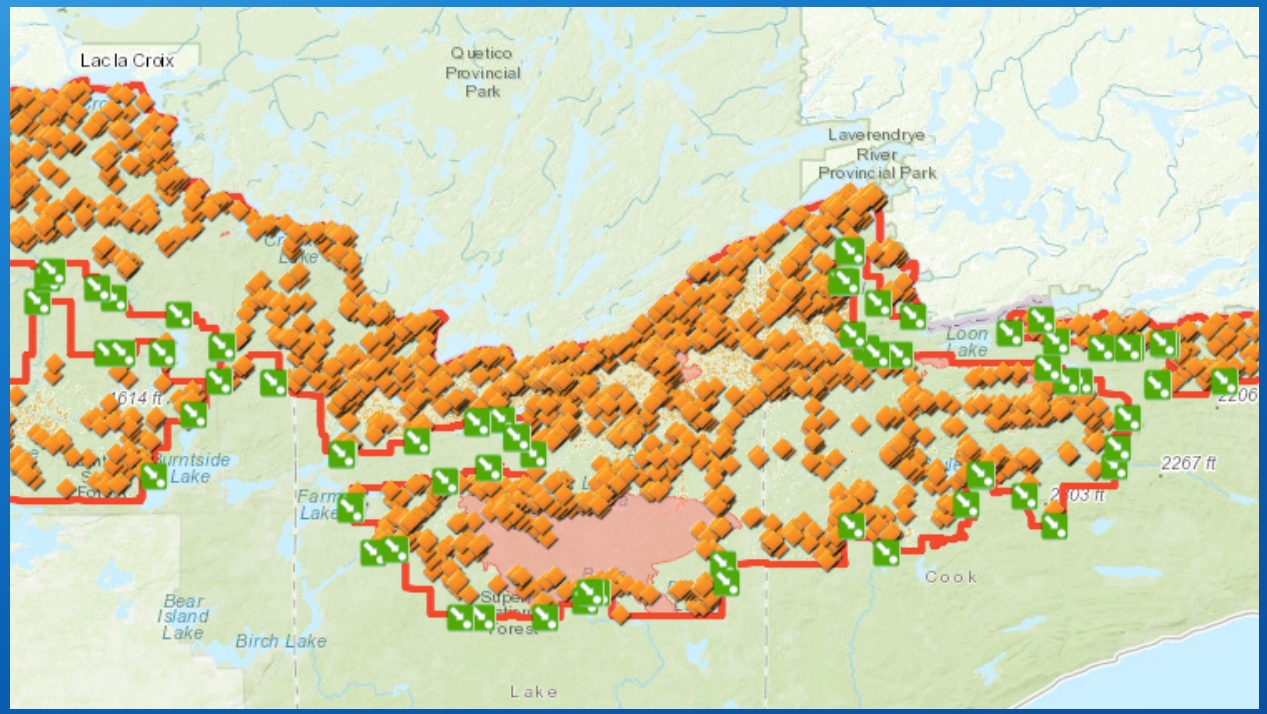
Bringing portal feature layer into your app

```
const webmap = new WebMap({
  portalItem: {
    id: "<webmap id>"
  }
});

await webmap.loadAll();

const layer = webmap.allLayers
  .find((layer) => layer.title === "test");

layer.outFields = ["some_field"];
```



Webmap Demo

Symbology, etc...

Labelling

- Label features to show relevant information at a glance
  - Multiline labels
  - Multiple label classes

Query the data from the server

- queryFeatures()
- queryFeatures() - by distance
- queryFeatures() - pagination
- queryAttachments()
- queryRelatedFeatures()

Interact with the data in memory

- when is the layerview ready
- when is the layerview updating
- add interactivity by querying the layerview
- filter & effect

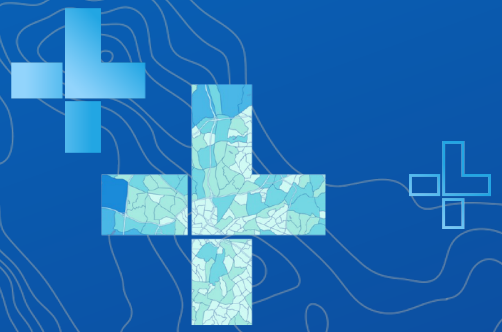
- Demo

What's new for the feature layer at version 4.14

- Release notes for 4.14
  - 2D Point Clustering (beta)
  - Time related updates
  - Guide page exposing color ramps
  - Client-side geometry changes
  - Smart Mapping enhancements
- Release notes for 4.13
  - Attribute driven composite symbols
  - Performance Improvements
- Release notes for 4.12
  - Time
  - Client-side queries in 3D
  - Smart Mapping updates

Let's have some questions...

Thanks for attending



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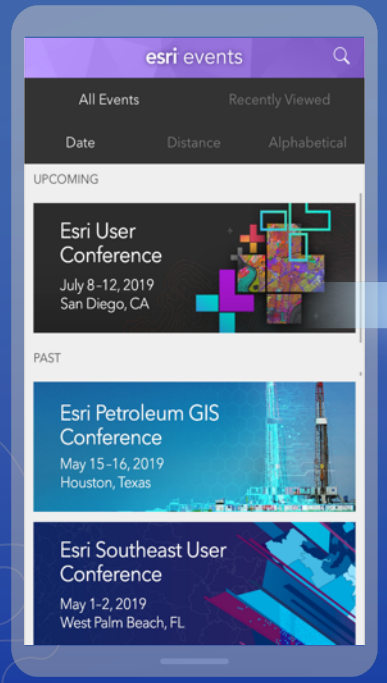
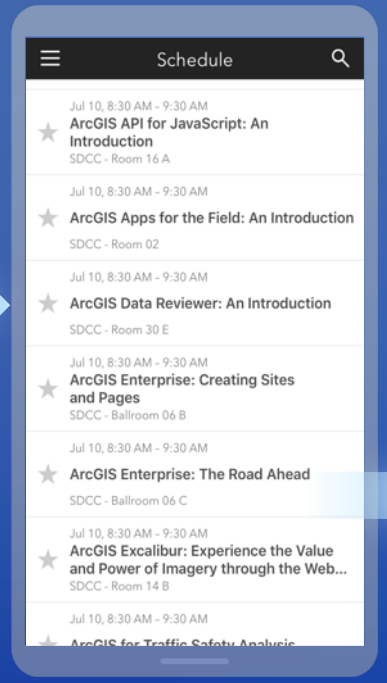
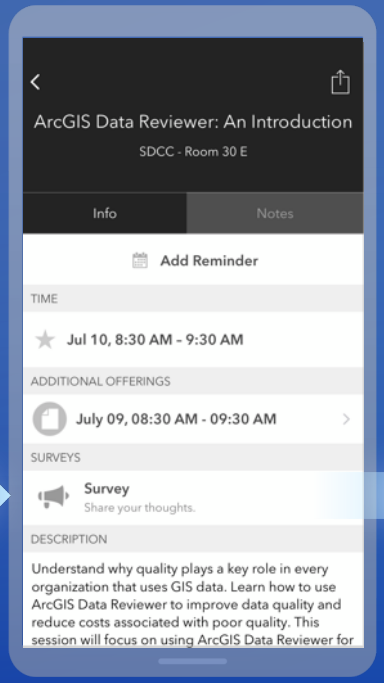


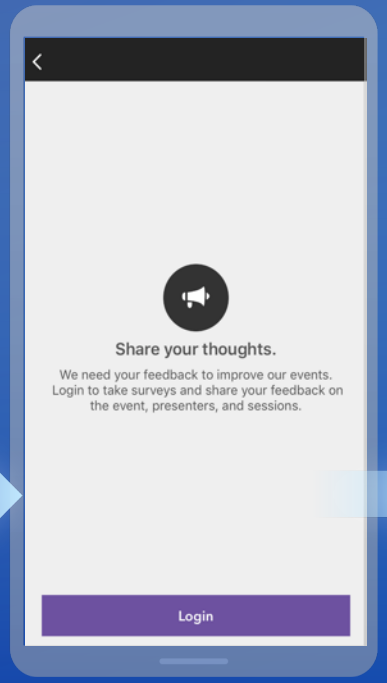
Select the session you attended



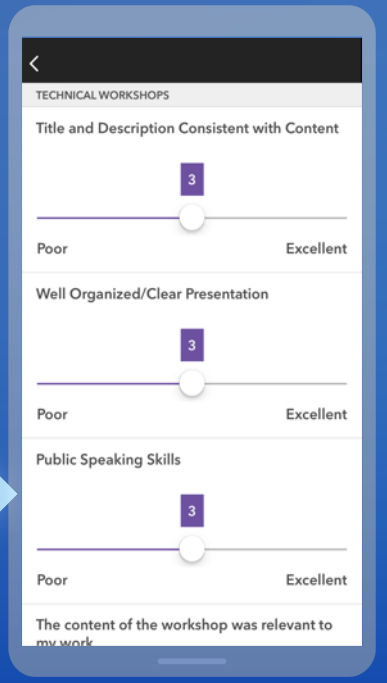
Scroll down to "Survey"



Log in to access the survey



Complete the survey and select "Submit"



Demo Title

Presenter(s)