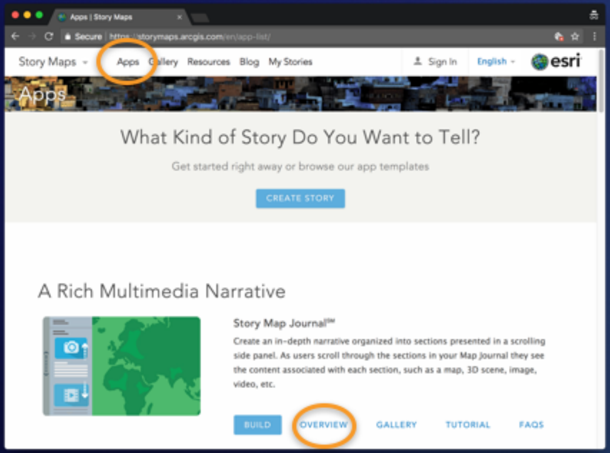
Story Map Customization with JavaScript

Alison Sizer

GIS INSPIRING WHAT'S NEXT

This is Story Map Customization with JavaScript, and I'm Alison, a Javascript developer on the StoryMaps team.

Downloading



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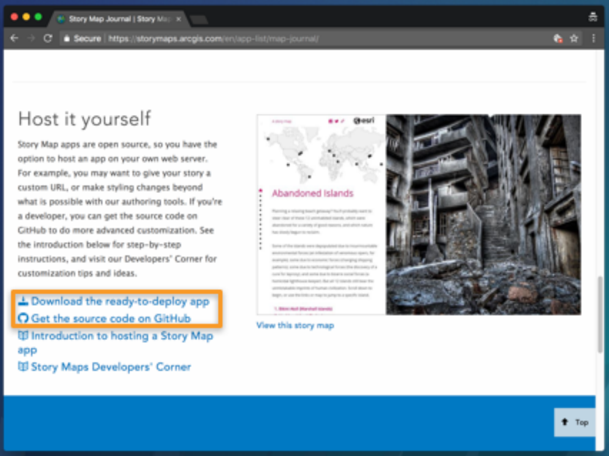
A Rich Multimedia Narrative

Story Map Journal℠

Create an in-depth narrative organized into sections presented in a scrolling side panel. As users scroll through the sections in your Map Journal they see the content associated with each section, such as a map, 3D scene, image, video, etc.

https://storymaps.arcgis.com/


Story Map Journal | Story Ma
Secure | https://storymaps.arcgis.com/en/app-list/map-journal/
Abandoned Islands
View this story map
Top

Host it yourself

Story Map apps are open source, so you have the option to host an app on your own web server. For example, you may want to give your story a custom URL, or make styling changes beyond what is possible with our authoring tools. If you're a developer, you can get the source code on GitHub to do more advanced customization. See the introduction below for step-by-step instructions, and visit our Developers' Corner for customization tips and ideas.

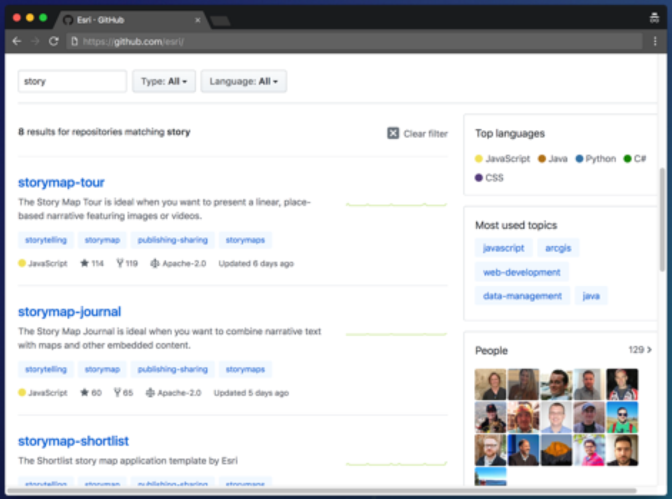
Download the ready-to-deploy app
Get the source code on GitHub
Introduction to hosting a Story Map app
Story Maps Developers' Corner

First, before we get started, I want to make clear that adding JavaScript functionality to a Story Map requires that you download the app template and host it yourself.

Probably the easiest way to get to our app downloads is to go to our website, then the Apps navigation item, find the app template you're looking for, click on Overview, and then scroll all the way down to the Host it yourself section.

At that point, you have two options – you can either use the "ready-to-deploy app" version, which is minified code, or you can get the full source code from GitHub, but then you'll need to follow the build instructions before you deploy it. If that last sentence didn't make any sense to you, you should (a) use the "ready to deploy" app, (b) read the "Intro to hosting a Story Map app" post, and (c) *probably* find a developer to help you.

Downloading


Esri · GitHub

https://github.com/esri/

story | Type: All | Language: All

8 results for repositories matching **story**

Clear filter

storymap-tour
The Story Map Tour is ideal when you want to present a linear, place-based narrative featuring images or videos.
storytelling storymap publishing-sharing storymaps
JavaScript ★ 114 119 Apache-2.0 Updated 6 days ago

storymap-journal
The Story Map Journal is ideal when you want to combine narrative text with maps and other embedded content.
storytelling storymap publishing-sharing storymaps
JavaScript ★ 60 65 Apache-2.0 Updated 5 days ago

storymap-shortlist
The Shortlist story map application template by Esri

Top languages
● JavaScript ● Java ● Python ● C# ● CSS

Most used topics
javascript arcgis web-development data-management java

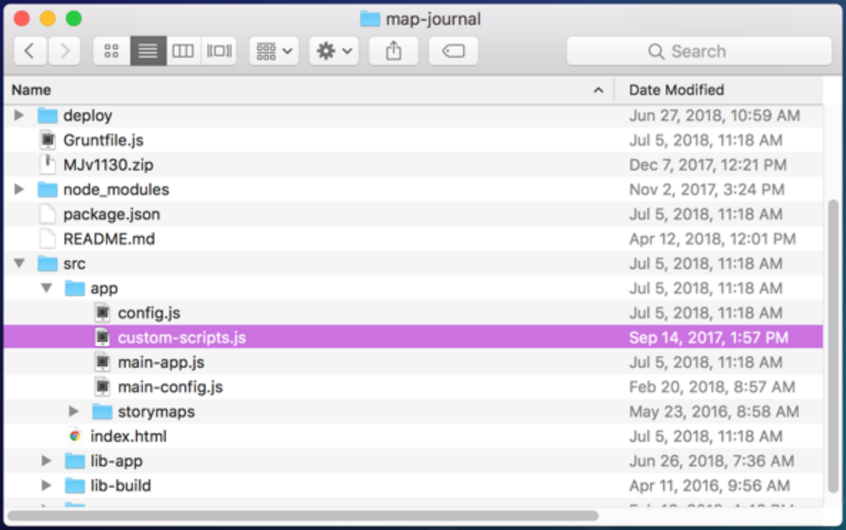
People 129

https://github.com/esri/

If you *are* a developer, you can also just go straight to github.com/esri, search the repos for "story" or "storymaps", and find the app template you're looking for.

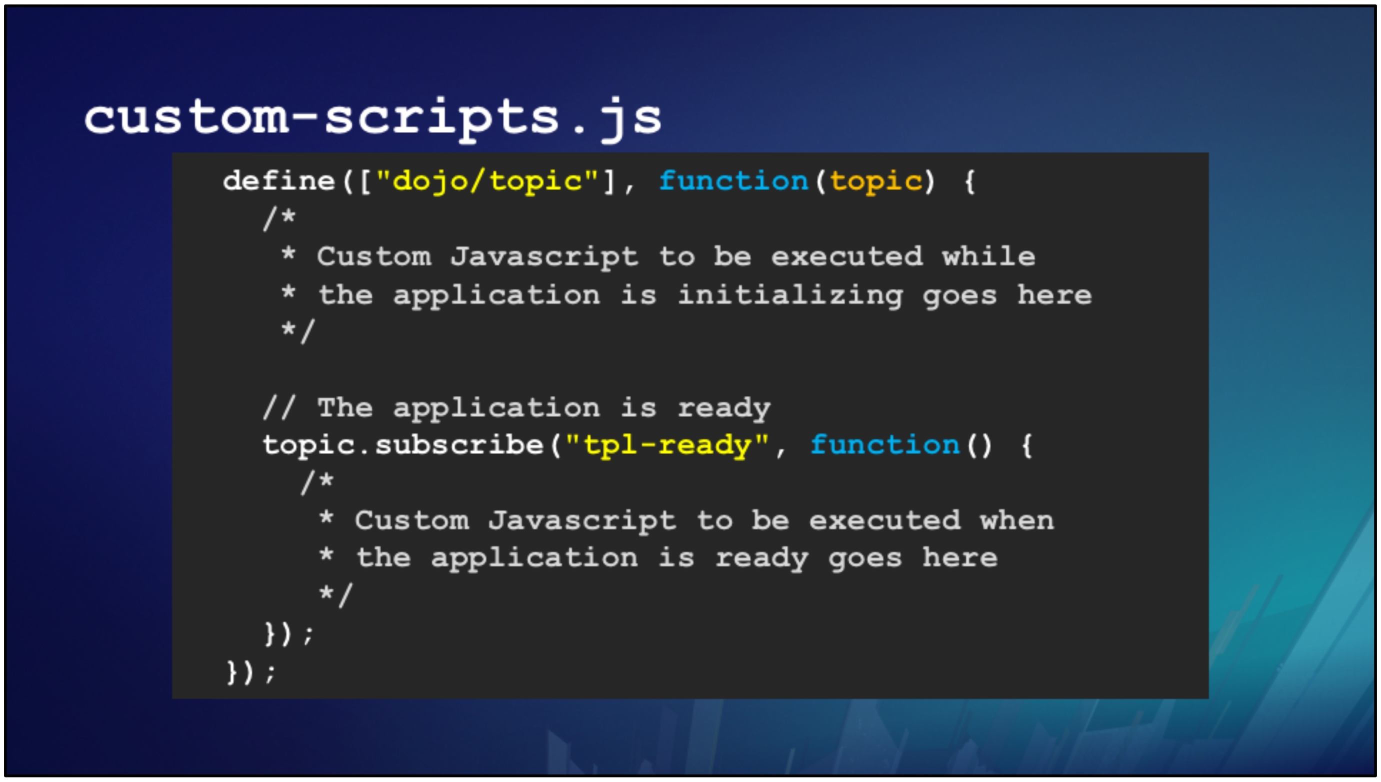
You'll find the pre-built minified code in "Releases", or you can just clone or fork the whole repo, but make sure to follow the developer guide in the Readme and the build instructions before you deploy it.

Where to put your JavaScript



Name	Date Modified
deploy	Jun 27, 2018, 10:59 AM
Gruntfile.js	Jul 5, 2018, 11:18 AM
MJv1130.zip	Dec 7, 2017, 12:21 PM
node_modules	Nov 2, 2017, 3:24 PM
package.json	Jul 5, 2018, 11:18 AM
README.md	Apr 12, 2018, 12:01 PM
src	Jul 5, 2018, 11:18 AM
app	Jul 5, 2018, 11:18 AM
config.js	Jul 5, 2018, 11:18 AM
custom-scripts.js	Sep 14, 2017, 1:57 PM
main-app.js	Jul 5, 2018, 11:18 AM
main-config.js	Feb 20, 2018, 8:57 AM
storymaps	May 23, 2016, 8:58 AM
index.html	Jul 5, 2018, 11:18 AM
lib-app	Jun 26, 2018, 7:36 AM
lib-build	Apr 11, 2016, 9:56 AM

There is a file, in both the minified and unminified versions of the app, named custom-scripts.js. This is where you should put your JavaScript. Because this doesn't get minified, keeping your code here means it's separate from the code that the StoryMaps team has written, and so it's easier to update the core app at a later date for newer releases.

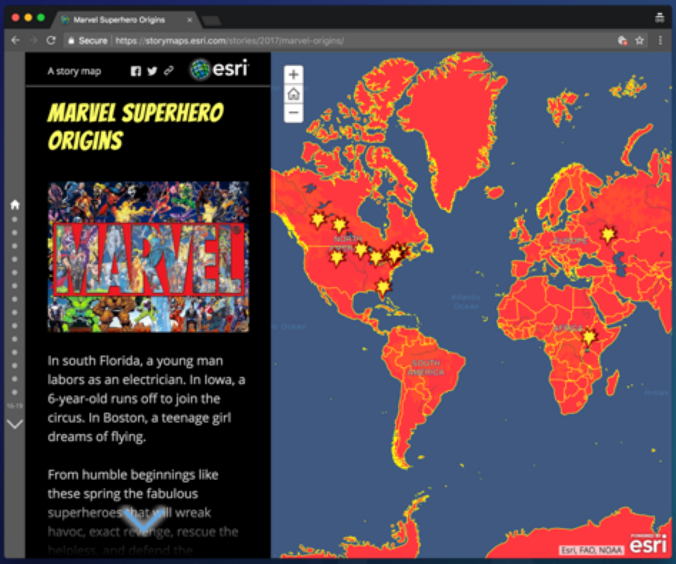


custom-scripts.js

```
define(["dojo/topic"], function(topic) {
  /*
   * Custom Javascript to be executed while
   * the application is initializing goes here
   */

  // The application is ready
  topic.subscribe("tpl-ready", function() {
    /*
     * Custom Javascript to be executed when
     * the application is ready goes here
     */
  });
});
```

Here's what that file looks like. There are two places to put code – while the app is initializing, and after it's ready.

Make a MapJournal map interact with the side panel



MARVEL SUPERHERO ORIGINS

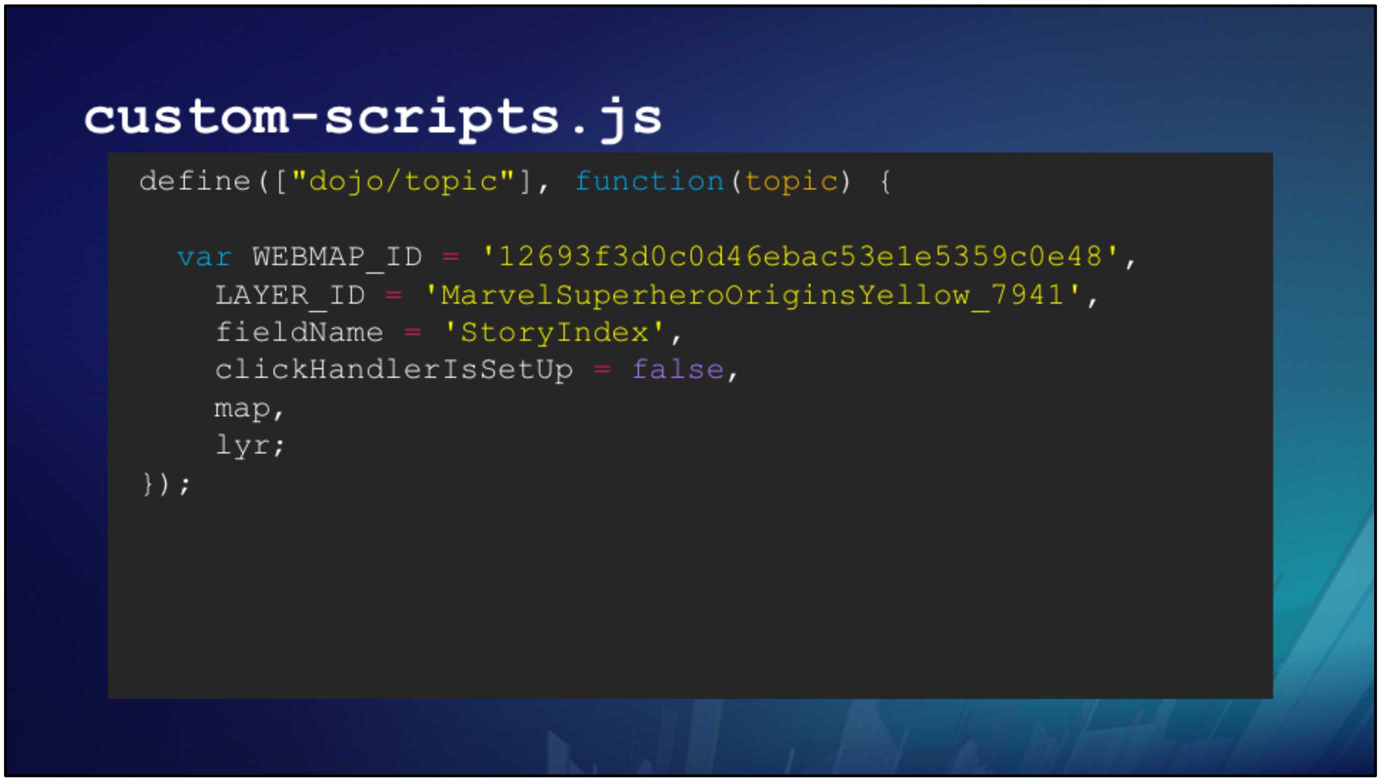
In south Florida, a young man labors as an electrician. In Iowa, a 6-year-old runs off to join the circus. In Boston, a teenage girl dreams of flying.

From humble beginnings like these spring the fabulous superheroes that will wreak havoc, exact revenge, rescue the helpless, and defend the

This is a Map Journal application with one map in the Main Stage. Each point on the map has its own narrative section, and clicking on a point will navigate the user to the corresponding section. We're going to recreate that functionality.

https://storymaps.esri.com/stories/2017/marvel-origins/

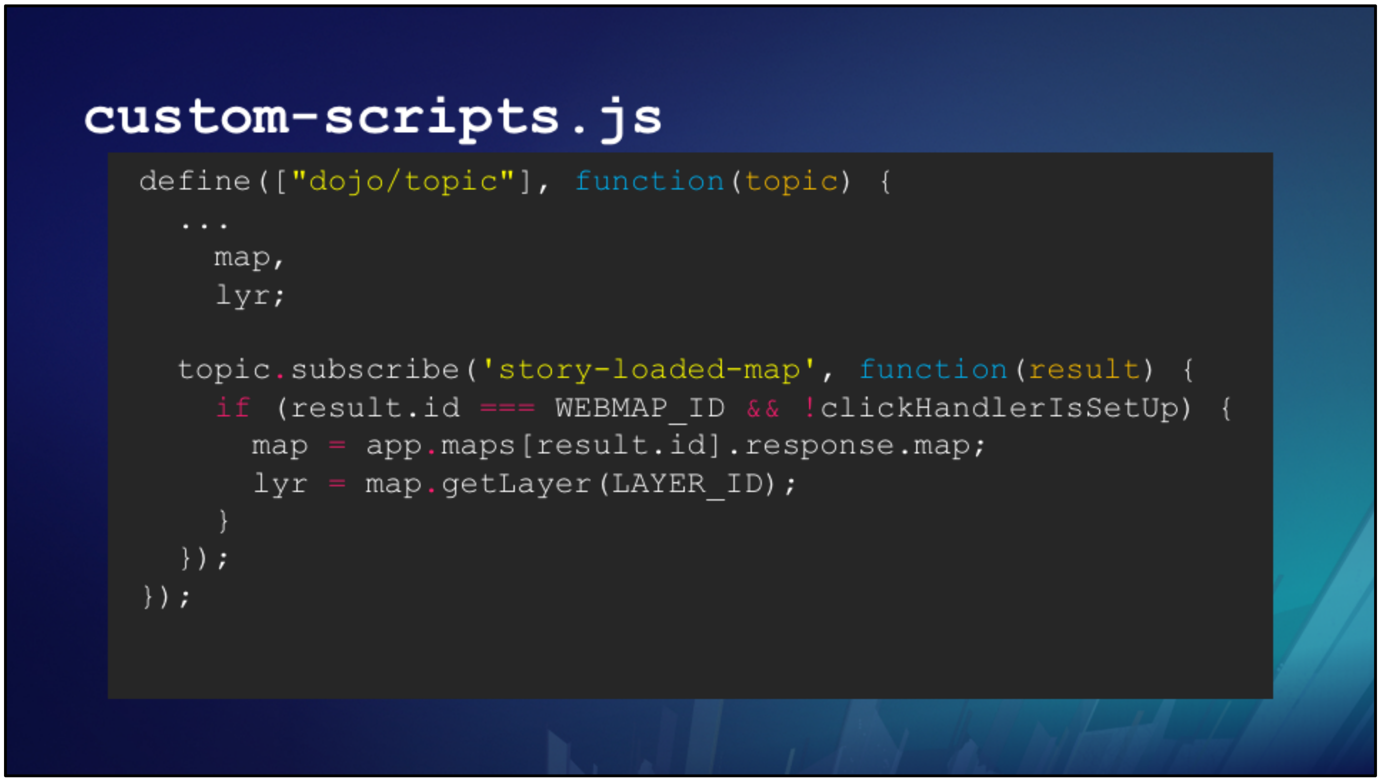
app id: bd5f9b0454704ba8801b2fcc6adb57d7
webmap id: 12693f3d0c0d46ebac53e1e5359c0e48
layer id: MarvelSuperheroOriginsYellow_7941



custom-scripts.js

```
define(["dojo/topic"], function(topic) {

  var WEBMAP_ID = '12693f3d0c0d46ebac53e1e5359c0e48',
    LAYER_ID = 'MarvelSuperheroOriginsYellow_7941',
    fieldName = 'StoryIndex',
    clickHandlerIsSetUp = false,
    map,
    lyr;
});
```

We need to know a couple things about our story before we start:
the ID of the webmap, the clickable layer ID, and then the layer needs a field that corresponds to the story index of each feature.
So the feature with attribute "StoryIndex" = 5 navigates to section 5, etc.



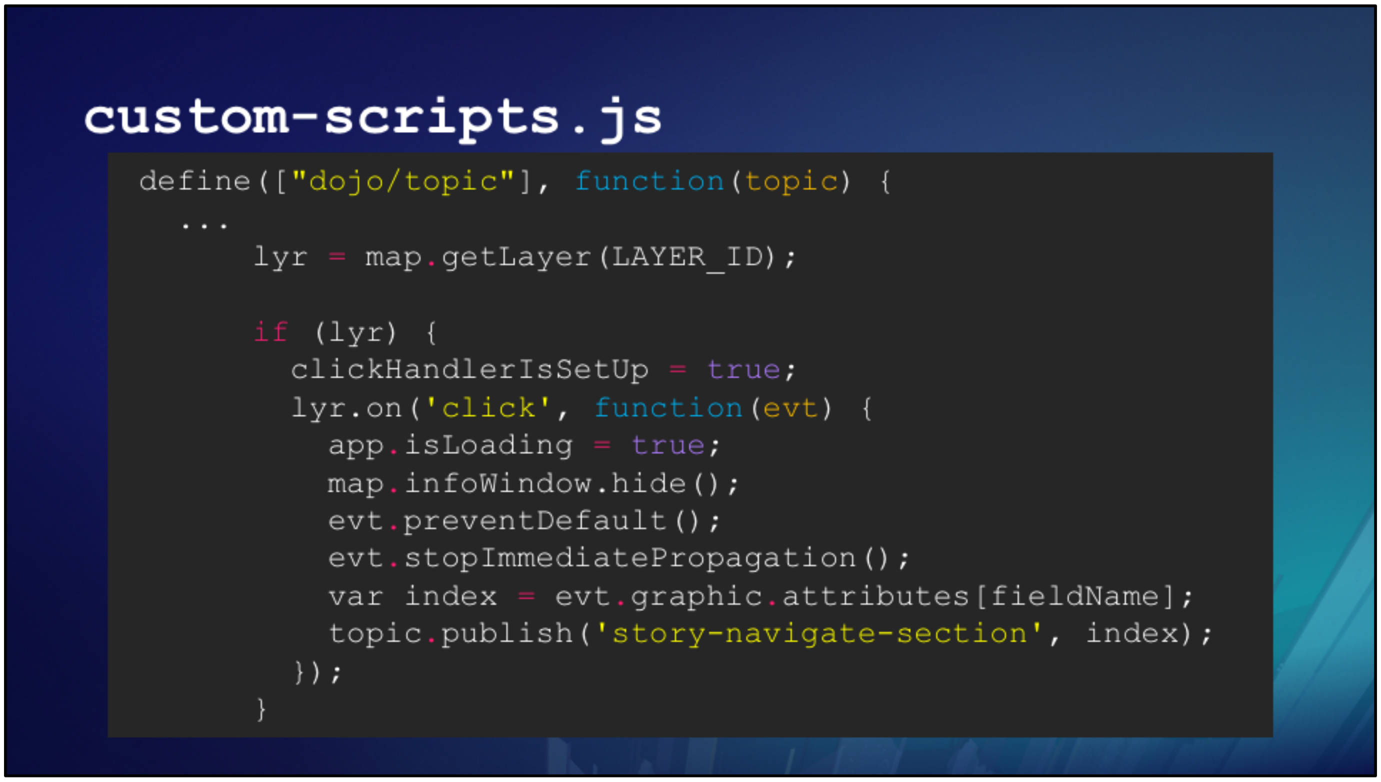
custom-scripts.js

```
define(["dojo/topic"], function(topic) {
  ...
    map,
    lyr;

  topic.subscribe('story-loaded-map', function(result) {
    if (result.id === WEBMAP_ID && !clickHandlerIsSetUp) {
      map = app.maps[result.id].response.map;
      lyr = map.getLayer(LAYER_ID);
    }
  });
});
```

I know there is a story-loaded-map event that fires after every map is loaded.

I'm going to wait for that event to fire and then see if the map loaded is the one I want.

If it is, I capture the map and the layer that I'm looking for.



custom-scripts.js

```
define(["dojo/topic"], function(topic) {
  ...
      lyr = map.getLayer(LAYER_ID);

      if (lyr) {
        clickHandlerIsSetUp = true;
        lyr.on('click', function(evt) {
          app.isLoading = true;
          map.infoWindow.hide();
          evt.preventDefault();
          evt.stopImmediatePropagation();
          var index = evt.graphic.attributes[fieldName];
          topic.publish('story-navigate-section', index);
        });
      }
```

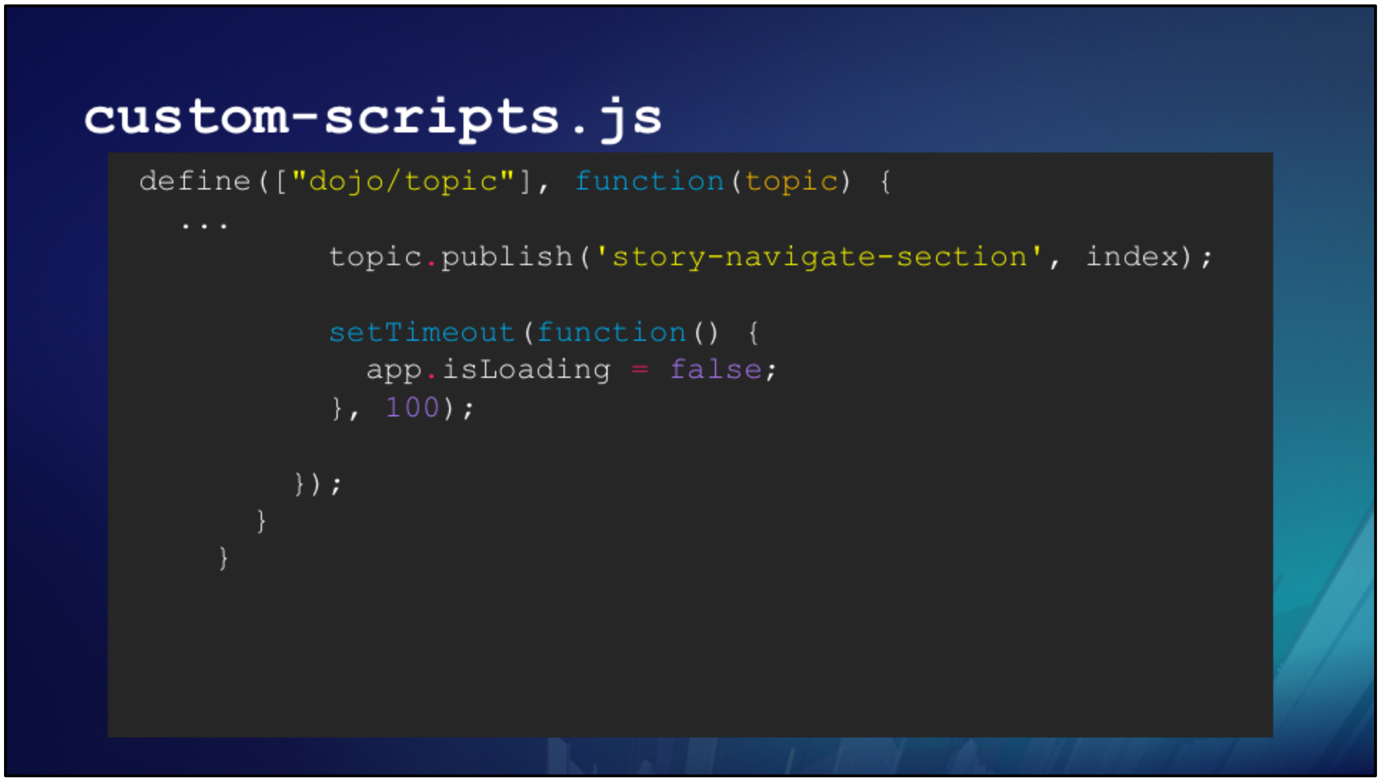
Before we go on, we need to make sure we actually have a layer (if not, we've done something wrong, or the map didn't load correctly).

Then we're going to set up the layer's click handler.

The layer's click handler function sets the global app variable `isLoading` to true so the app knows section navigation is about to happen. Then we hide the map's infoWindow in case it's showing, prevent the event's default behavior (clicking on the layer would usually open the popup), and stop the event's propagation (if there were another layer with a popup on this map, a click might trigger that layer's popup as well).

After that, we figure out the index of the section we're going to navigate to by finding the StoryIndex attribute of the clicked graphic.

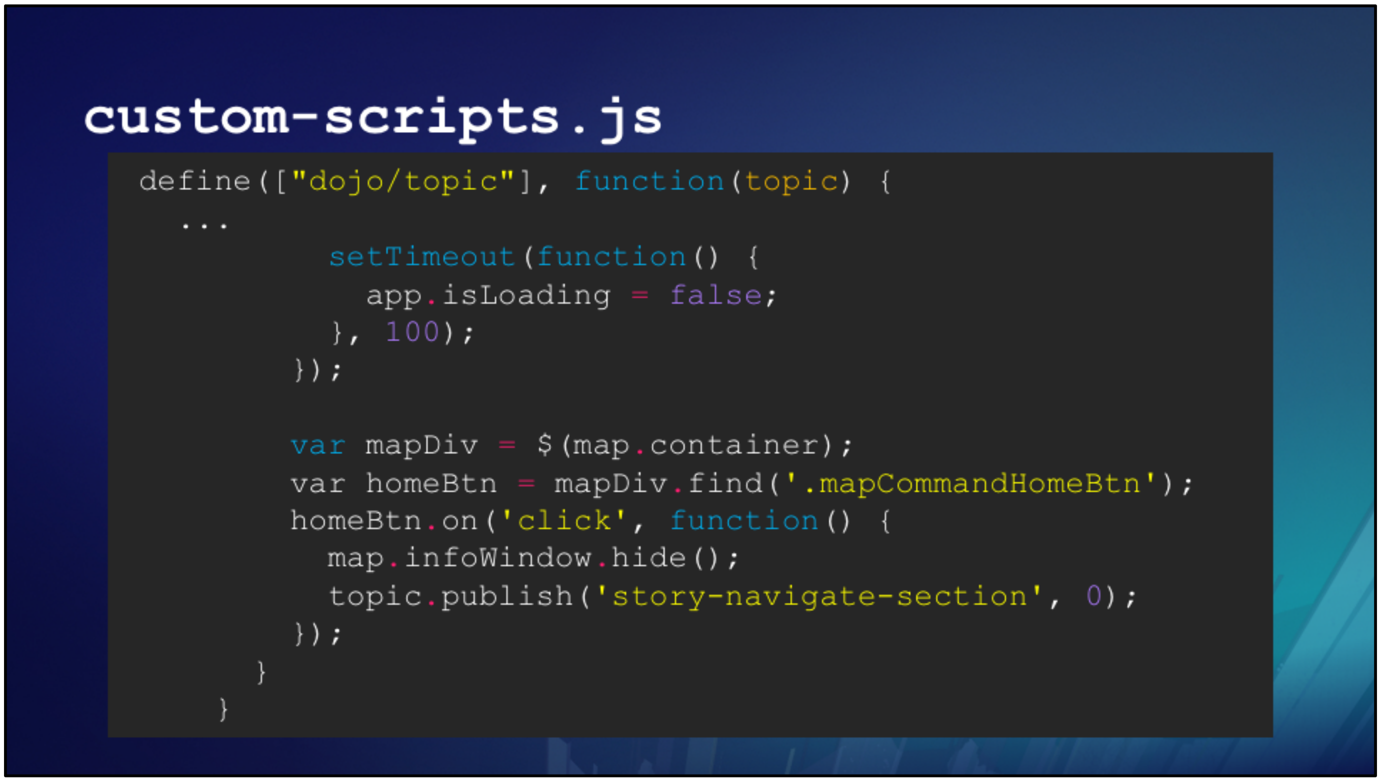
Then we publish `story-navigate-section` which the app already knows what to do with (as it sounds like – it navigates the story to that section).



custom-scripts.js

```
define(["dojo/topic"], function(topic) {
  ...
          topic.publish('story-navigate-section', index);

          setTimeout(function() {
            app.isLoading = false;
          }, 100);

        });
      }
    }
```

We now need to tell the app that it's done loading (but with a 100-ms delay, to allow for the app to navigate)

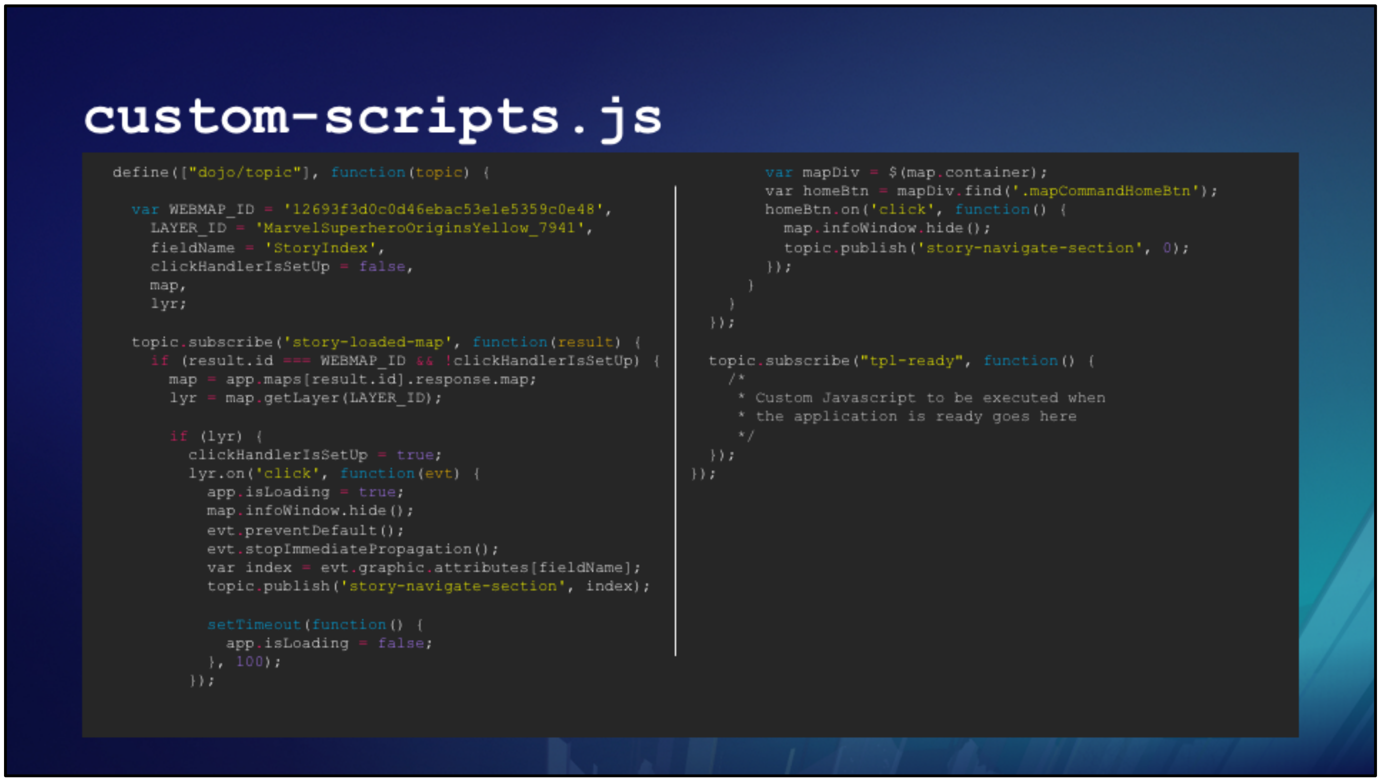


custom-scripts.js

```
define(["dojo/topic"], function(topic) {
  ...
          setTimeout(function() {
            app.isLoading = false;
          }, 100);
        });

        var mapDiv = $(map.container);
        var homeBtn = mapDiv.find('.mapCommandHomeBtn');
        homeBtn.on('click', function() {
          map.infoWindow.hide();
          topic.publish('story-navigate-section', 0);
        });
      }
    }
```

The last thing we'll do is change the behavior of the map's home button. When we click the home button, we want the map to zoom back to the full extent, AND go back to the "home" section. Otherwise, it looks out of sync with the section that it's on.

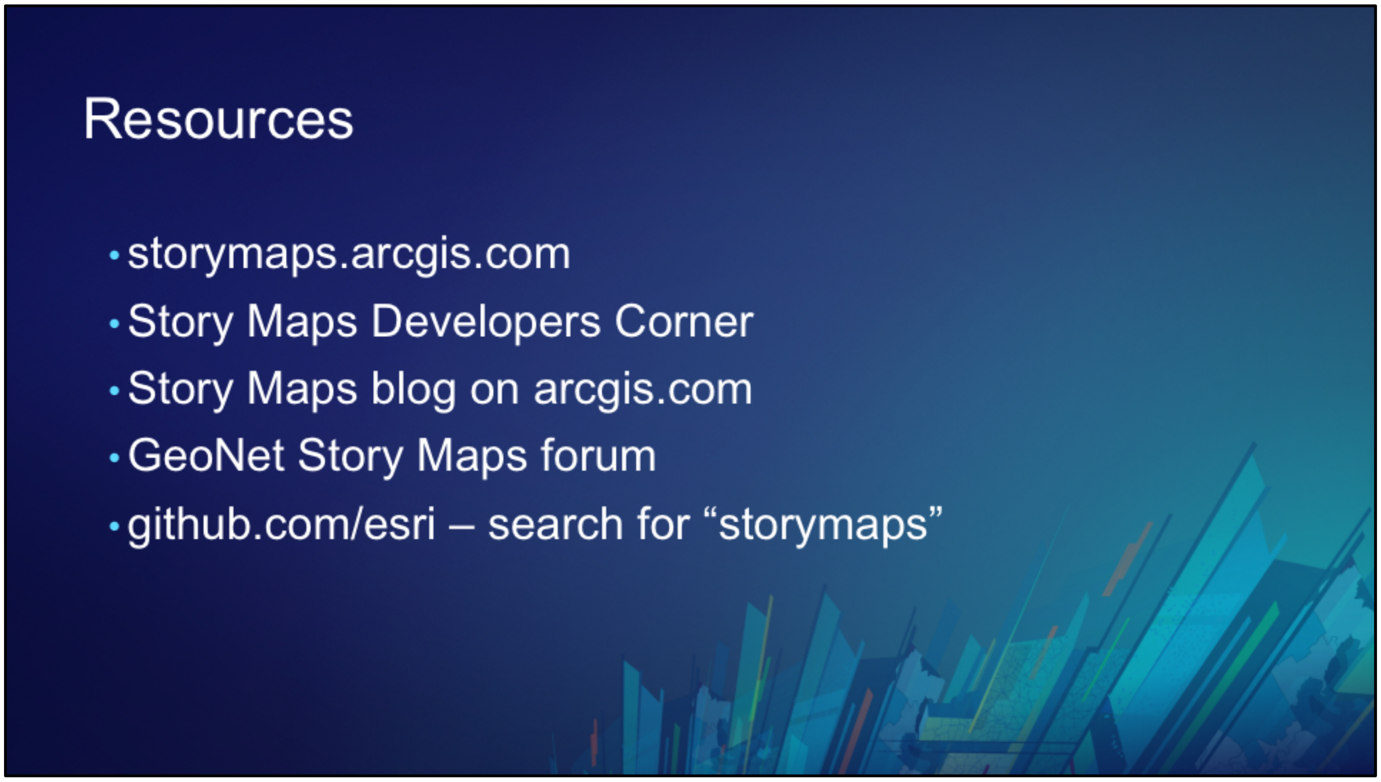
So first we find the home btn. Then, in the `click` callback, we again hide the infoWindow, and ask the app to navigate back to section "0", the home section.



custom-scripts.js

```javascript
define(["dojo/topic"], function(topic) {

  var WEBMAP_ID = '12693f3d0c0d46ebac53e1e5359c0e48',
    LAYER_ID = 'MarvelSuperheroOriginsYellow_7941',
    fieldName = 'StoryIndex',
    clickHandlerIsSetUp = false,
    map,
    lyr;

  topic.subscribe('story-loaded-map', function(result) {
    if (result.id === WEBMAP_ID && !clickHandlerIsSetUp) {
      map = app.maps[result.id].response.map;
      lyr = map.getLayer(LAYER_ID);

      if (lyr) {
        clickHandlerIsSetUp = true;
        lyr.on('click', function(evt) {
          app.isLoading = true;
          map.infoWindow.hide();
          evt.preventDefault();
          evt.stopImmediatePropagation();
          var index = evt.graphic.attributes[fieldName];
          topic.publish('story-navigate-section', index);

          setTimeout(function() {
            app.isLoading = false;
          }, 100);
        });
        var mapDiv = $(map.container);
        var homeBtn = mapDiv.find('.mapCommandHomeBtn');
        homeBtn.on('click', function() {
          map.infoWindow.hide();
          topic.publish('story-navigate-section', 0);
        });
      }
    }
  });

  topic.subscribe("tpl-ready", function() {
    /*
     * Custom Javascript to be executed when
     * the application is ready goes here
     */
  });
});
```

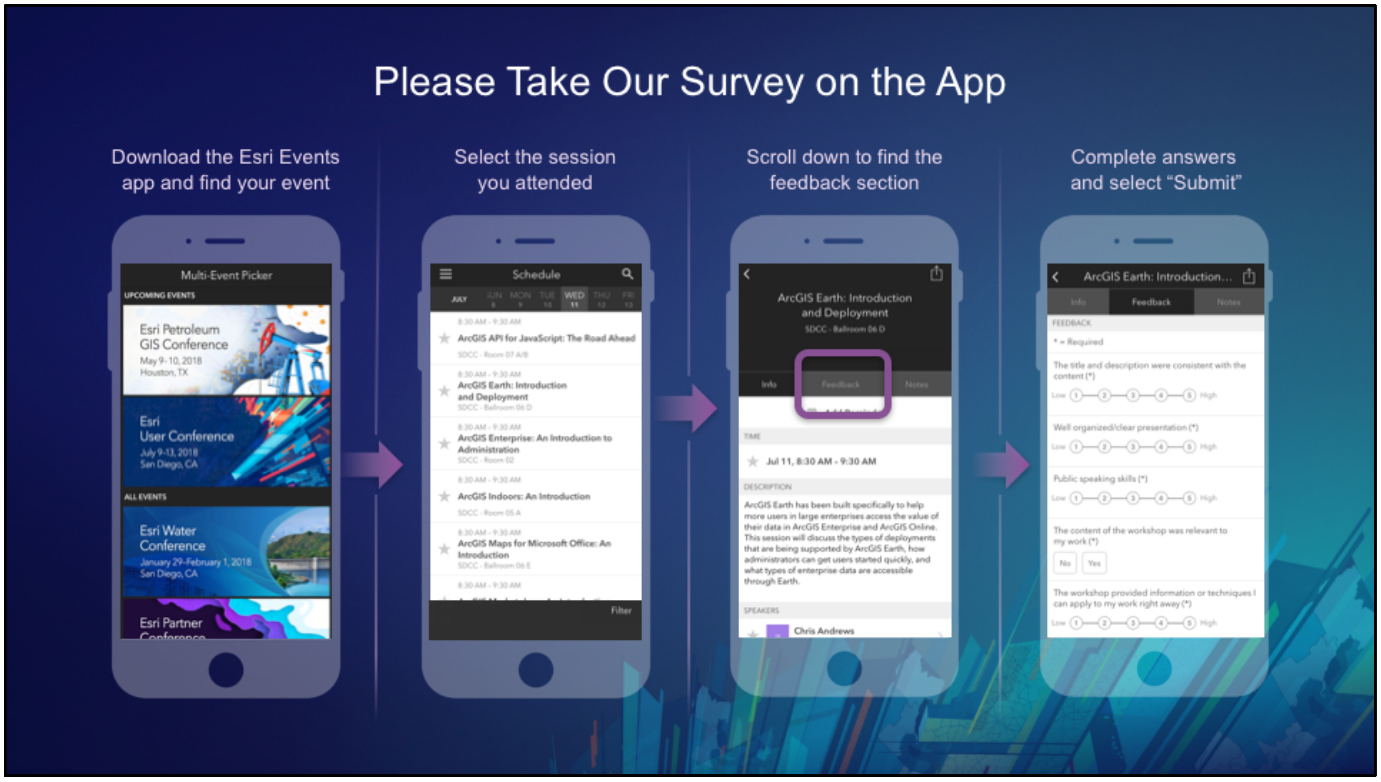
And here's the whole code, put together (and much smaller – sorry)



Resources

- storymaps.arcgis.com
- Story Maps Developers Corner
- Story Maps blog on arcgis.com
- GeoNet Story Maps forum
- github.com/esri – search for “storymaps”

I would encourage all of you to stick around, or come back later, and talk to us for a more personalized discussion about Story Maps, and what we can do for you, and what you guys are using our stuff for. We love to see cool new things, and sometimes our best ideas come from you guys, so maybe the interesting customization you’re doing today could inspire our next new feature in a future release.



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UPCOMING EVENTS

Esri Petroleum GIS Conference
May 9-10, 2018
Houston, TX

Esri User Conference
July 9-13, 2018
San Diego, CA

ALL EVENTS

Esri Water Conference
January 29-February 1, 2018
San Diego, CA

Esri Partner Conference

Select the session you attended

Schedule

JULY SUN 8 MON 9 TUE 10 WED 11 THU 12 FRI 13

8:30 AM - 9:30 AM
ArcGIS API for JavaScript: The Road Ahead
SDCC - Room 07 A/B

8:30 AM - 9:30 AM
ArcGIS Earth: Introduction and Deployment
SDCC - Ballroom 06 D

8:30 AM - 9:30 AM
ArcGIS Enterprise: An Introduction to Administration
SDCC - Room 02

8:30 AM - 9:30 AM
ArcGIS Indoors: An Introduction
SDCC - Room 05 A

8:30 AM - 9:30 AM
ArcGIS Maps for Microsoft Office: An Introduction
SDCC - Ballroom 06 E

8:30 AM - 9:30 AM

Filter

Scroll down to find the feedback section

ArcGIS Earth: Introduction and Deployment
SDCC - Ballroom 06 D

Info | Feedback | Notes

TIME

Jul 11, 8:30 AM - 9:30 AM

DESCRIPTION

ArcGIS Earth has been built specifically to help more users in large enterprises access the value of their data in ArcGIS Enterprise and ArcGIS Online. This session will discuss the types of deployments that are being supported by ArcGIS Earth, how administrators can get users started quickly, and what types of enterprise data are accessible through Earth.

SPEAKERS

Chris Andrews

Complete answers and select "Submit"

ArcGIS Earth: Introduction…

Info | Feedback | Notes

FEEDBACK

* = Required

The title and description were consistent with the content (*)
Low 1 2 3 4 5 High

Well organized/clear presentation (*)
Low 1 2 3 4 5 High

Public speaking skills (*)
Low 1 2 3 4 5 High

The content of the workshop was relevant to my work (*)
No Yes

The workshop provided information or techniques I can apply to my work right away (*)
Low 1 2 3 4 5 High

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THE SCIENCE OF WHERE