

Welcome to the Esri Storytelling Swipe and Spyglass apps

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Do you need to download this app?

By downloading this app and making it available on your web server or website you can easily create and configure a swipe or spyglass story map. And because we provide the source code you can use it to add your own customizations and tweaks.

But you don't have to download the template to use it! You can create and deploy a swipe or spyglass story map by using the hosted version of this template that is built into ArcGIS.com. We host the template for you so there's nothing to download. There's an interactive editor too that gives you WYSIWYG control of your story map. Look for the hosted version of the swipe and spyglass apps in the in the 'Make A Web Application' section of the Share dialog in the ArcGIS.com web map viewer.

To use the hosted app, you start by making a map (see *Create your web map*), saving it, and then using the Share dialog in the web map viewer. Select the hosted template and continue with the steps that you see. When you configure the application, the interactive editor will open automatically.

The rest of this document describes how to use the downloadable app.

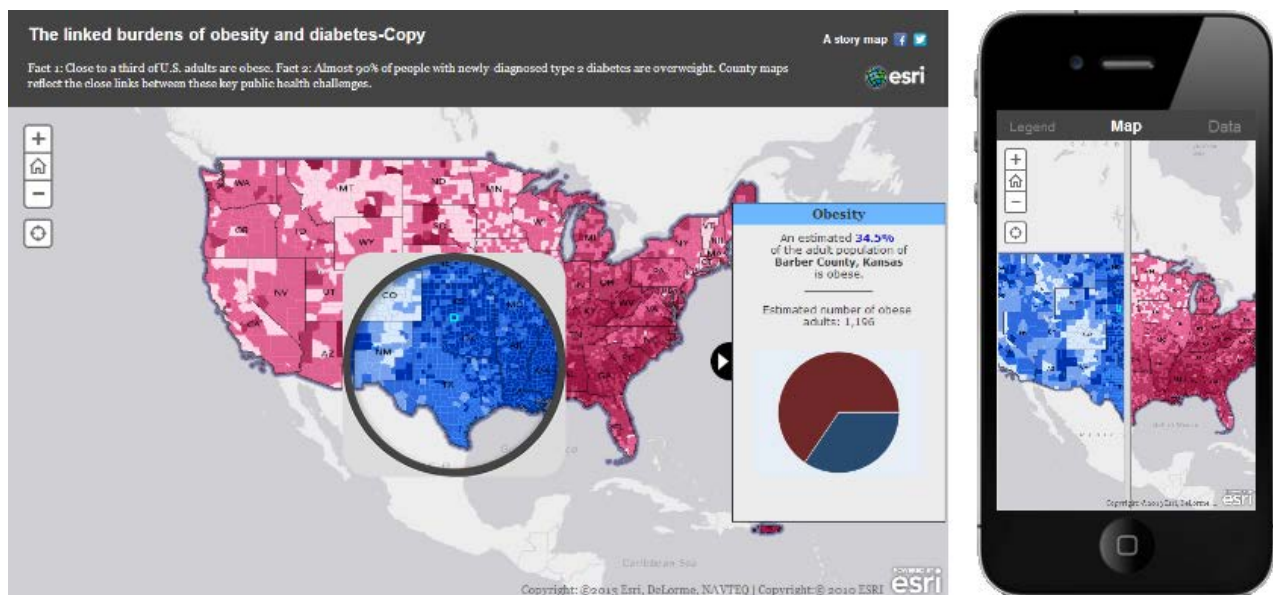
Template updates and customization info

We maintain a Github page for the swipe and spyglass apps: <https://github.com/Esri/swipe-map-storytelling-template-js>. This is where we post updates to the template. The page also contains useful information for developers who want to customize the swipe and spyglass app.

Introduction

This app lets you publish an attractive, easy-to-use web application that lets you present two related thematic maps that are either layers of a single web map, or two separate web maps. The app has two styles or user experiences: A “swipe” function that enables users to move a slider back and forth across the map window; and a “spyglass” function that lets users peer through one map into the next by moving a circular viewer across the screen.

This easily configurable app allows you to define the maps, title and subtitle for the site. You've downloaded a Storytelling app which was designed to enable users tell their own narratives with geospatial data. This read-me file explains how to setup and configure the app to run on your web server. We've also provided a few tips on how to personalize the app by adding a company logo, customizing the content in the sidebar, and adding an overview map.



The swipe and spyglass app lets a person compare two related thematic map layers with a “swipe” function or spyglass that reveals a second layer. [View this application.](#)

For some examples of swipe and spyglass story maps published by Esri and the GIS community, see <http://storymaps.esri.com>

The template is designed to be used in any web browser on any device, including smartphones and tablets. The template layout you see in your PC web browser also fits nicely on the iPad's web browser. On Smartphones and smaller tablets, the layout template automatically rearranges itself.

This downloadable template can be deployed by anyone who has access to a web server or web site on which to host the application. This simply means that you download the template's files and put them onto the file structure of your existing website or web server in the same way as you would put new HTML pages and graphics onto your website. You don't need to set up a web server in order to use the template and you don't need to have a web server running on your computer.

For example imagine you are a small community organization, like a 'Friends of the Bay' type environmental group, whose website is hosted on one of the popular web hosting sites, like iPage. In order to deploy a swipe or spyglass app you would simply download the template and then log in to your iPage account, and put the files into a new folder in the file tree for your website. If you work in a large organization you might work with the administrator of your organization's website or web servers, to install the template file. In other words, downloading the template and hosting it isn't a big deal. You are just putting some files onto the web so they can be accessed by people.

1. Download and install the application

If you've not downloaded the template zip file yet, you can get the zip file that contains it on the GitHub project page <https://github.com/Esri/swipe-map-storytelling-template-js>

These instructions assume that you have a Web server like Internet Information Services(IIS) installed and setup on your machine. If you are using another Web server the general installation steps will be the same but you will need to check your Web server's documentation for specific information on deploying and testing the application.

Unzip the zip file and copy its contents into a new folder in the file structure of your existing website or web server. The location of the template's Index.html file defines the URL that will be used to access the application. For example if your website is using a web server like Internet Information Services(IIS) you would create a folder in its root file structure (C:\inetpub\wwwroot) and copy the contents of the template zip file into it. So if you created a folder called:

```
C:\inetpub\wwwroot\swipe
```

and your website's domain is <http://www.example.com> then the URL of your application will be:

```
http://www.example.com/swipe
```

Tip: when we talk about a web server here we're not talking about ArcGIS for Server. ArcGIS for Server is a product that allows organizations to create and serve web services that use GIS data. ArcGIS for Server is not needed in order to use this template. By 'web server' we mean the standard web server that you use for your website or web pages. This might be a web server that you or your organization maintains. Or it may simply be a folder on a shared or hosted web server that you use for your website or web pages...

2. Create your web map(s)

This step involves logging in to ArcGIS.com with your free or organizational subscription account and creating a web map either with the [ArcGIS.com map viewer](#) or [ArcGIS Explorer Online](#).

Choose a basemap

You can use any of the built-in ArcGIS basemaps, or use any custom basemaps. For example, if your organization has created its own basemap, simply use that in your web map.

Don't forget that you can also apply transparency to your web map's basemap to mute or tone down its colors. This can be useful if you want to make your operational layers, stand out more prominently on the map. To apply transparency to the basemap, use the ArcGIS.com map viewer because ArcGIS Explorer Online doesn't let you do that.

Add map layers

When adding layers to your map, it is important to consider what order they are in when you save. The swipe and spyglass work best if you are "swiping" away the top most layer in your map, other than reference labels. If there are layers on top of the layer you choose to swipe against, they will hide the swipe/spyglass function that is happening underneath.

A powerful feature of ArcGIS is that you can also add any other publically available content into your swipe web map too. For example many organizations and agencies have created specialized data and basemaps that can be used in ArcGIS web maps. And there are also many services being served that are designed to be added into web maps to provide supplementary content. For example there's a [World Transportation map service](#) which you can add into a web map that uses the Imagery with Labels basemap to provide streets and road names. There are also hundreds of additional services such as geology, federal lands, vegetation, add demographics that you can also into your web map as layers, depending on what you want to communicate.

Don't forget to symbolize your layers and configure the popups to make the map as engaging and easy to understand as possible to your audience. Additional information can be found in our [Workflows & Best Practices](#) and [Defining Pop-ups](#) documents.

Choose the initial extent of your map

The initial extent of a web map is simply the spatial extent it shows when it is opened. This extent is whatever extent was being displayed the last time that the map's author saved the map.

When a user opens a swipe and spyglass application app, the first extent they see is the initial extent of the web map. After they've navigated around the map, they can also return to this initial extent by using the Home button (the house icon) on the map. This provides a nice way for people to get back to base after they've been somewhere else.

Save your map, specify its name and summary, and make it public

When you save your web map, the title you specify is used as the title for your map your application, and the summary you specify becomes the byline or subtitle in the swipe and spyglass banner. You can always

change this text later by editing the web map's details. The other information on the Details page, such as Description, Access Constraints and Tags is not used by the template. You must also make the web map public via the Share button on the Details page for the web map. (Story map templates don't currently support private or restricted access web maps out of the box).

You are done with the web map part of the process! That's the hard part done. Now you just need to put the template on your server and configure it so that it uses your web map.

Create a swipe and spyglass app with two web maps

The Storytelling Swipe and Spyglass app has the capability to utilize two web maps instead of a single web map with multiple layers. To do so, you will need to create two web maps following the steps above. This time only put the layer you want visible on the left side of the swipe in the first web map (outside of the spyglass). All the layers that you would like visible on the right side of the swipe (in the spyglass) should be included in the second web map. This means any reference or supporting layers must be added to both web maps.

3. Configure the application

Now you've created your web map and shared it publicly, you are ready to configure the template to tell it to use your web map, what layer to swipe away, and so on.

Point the template at your web map

1. In the template folder, open the **index.html** file in the text editor of your choice such as Windows Notepad or Windows WordPad. Look for the template configuration section of the file. Go to the Template configuration section of the file.

```
//-----  
// Template configuration  
//-----
```

2. In the template configuration section, update the **layout** property to choose the vertical swipe bar or the spy glass.

```
//-----  
// Swipe Style  
//-----  
// Select between the vertical swipe bar using "swipe" or the spy glass using "spyglass"  
layout: "swipe",
```

3. In the template configuration section, update the **webmaps** property with the ID or IDs of your web map(s). This tells the application which web map(s) to use. The web map ID can be found at the end of the URL when the web map is open in the ArcGIS.com map viewer (see below).



If you are choosing to swipe between layers of a single webmap, enter your web map ID and optionally edit the **layerIndex** property to select the layer to be revealed. By default the top layer will be used.

```
//-----  
// Swipe Layer  
//-----  
// Choose to swipe between two webmaps or between the layer of a single webmap  
// e.g: ["WEBMAP_ID"] OR ["WEBMAP_ID_1", "WEBMAP_ID_2"]  
webmaps: ["a5019e8c55d547eab69c0777dcd7509a"],  
// If using one webmap, enter the layer index of the layer to be revealed.  
// Index is defined by the web map table of contents (0 is the top layer).  
layerIndex: 0,
```

If you are choosing to compare two web maps instead of comparing two layers, add a comma then the second web map ID. Do not edit the **layerIndex** property.

```
//-----  
// Swipe Layer  
//-----  
// Choose to swipe between two webmaps or between the layer of a single webmap  
// e.g: ["WEBMAP_ID"] OR ["WEBMAP_ID_1", "WEBMAP_ID_2"]  
webmaps: ["a5019e8c55d547eab69c0777dcd7509a", "dbd1c6d52f4e447f8c01d14a691a70fe"],  
// If using one webmap, enter the layer index of the layer to be revealed.  
// Index is defined by the web map table of contents (0 is the top layer).  
layerIndex: 0,
```


3. In the template configuration section, update the `popupTitles` and `popupColors` properties to help user associate the popup with the correct map. Titles are optional; colors are mandatory, they should reflect the content of your layer or web map. The popups from the web map can also be disabled in the application by setting the `popup` property to `false`.

```
//-----  
// Pop-up  
//-----  
// Web map popups can be disabled in the application when set to false  
popup: false,  
// Text that appears in pop-up header to help user associate pop-ups with the correct map.  
// First string will be used for the right map or spyglass map, and the second string is  
// used for the right map or main map in spyglass mode  
popupTitles: [ "", "" ],  
// Popup colors that will be the background colors for the popup header. Same order as  
// popupTitles. Use hex values.  
popupColors: [ "f00", "0029ff" ],
```

4. In the template configuration section, update the `legend` and `description` properties to dictate if you want to include a legend and/or a description as a left side panel. If you choose to have a description, enter your text in `sidePanelDescription`. HTML markup can be used to style the text. The `locationSearch` property can be altered to enable an address search tool that will be displayed in the application. The `geolocator` property provides a locate button that will detect the user's location (on supported browsers).

```
//-----  
// App Layout  
//-----  
// Dictate if the legend panel is displayed in the side panel.  
legend: true,  
// Dictate if the description panel is displayed in the side panel.  
description: true,  
// Text that appears in the description panel of the side panel. Valid HTML string expected.  
sidePanelDescription: "",  
// Address location search widget  
locationSearch: false,  
// Location button that locates user (on supported browsers)  
geolocator: false,
```

5. A series is a tabbed navigation tool that will help guide your viewers through a set of scenes; each has a title and description that will help convey your story for that particular scene.

To create a series in the application, simply set the `series` property to `true`, and add the appropriate bookmark information.

```
// Dictate if a series is used in the application. A series is a tabbed navigation tool to  
// guide viewers through particular geographic extents with appropriate titles and  
// descriptions.  
series: false,  
// List of places if series is enabled  
bookmarks: [  
  {  
    name: "Bookmark 1",  
    description: "Bookmark 1 description",  
    extent: {  
      type: "extent",  
      xmin: -10864364.722880296,  
      ymin: 4523812.995539978,  
      xmax: -8817075.357290689,  
      ymax: 5723568.59150378,  
      spatialReference: {  
        wkid: 102100  
      }  
    }  
  },  
]
```

```

    {
      name: "Bookmark 2",
      description: "Bookmark 2 description",
      extent: {
        type: "extent",
        xmin: -8980956.345934052,
        ymin: 4874811.82942541,
        xmax: -6933666.9803444445,
        ymax: 6074567.425389213,
        spatialReference: {
          wkid: 102100
        }
      }
    }
  ],

```

Additionally, you can change the following optional configuration settings:

- **title:** if not specified the ArcGIS.com map's title is used
- **subTitle:** if not specified the ArcGIS.com web map's summary is used
- **bingMapsKey:** if the map uses data from Bing Maps, enter your Bing Maps Key

1. By default, the application displays the ArcGIS.com map's title as the applications title and the map's summary as the subtitle. You can change this by setting the title and subtitle properties.

```

//-----
// Header
//-----
// The application header title, if no title is specified, the webmap's title is used
title: "This is a custom title for your app",
// The application header subtitle, if not specified the ArcGIS.com web map's summary is
used
subtitle: "This is a custom subtitle",

```

2. If your map contains Bing Maps data, edit the app/commonConfig.js file to add your [Bing Maps key](#).

```
bingMapsKey: "Enter your Bing Maps Key here";
```

3. Save the file then test your [application](#) and note that it now displays your map and if specified your custom title and subtitle.

Other customizations

You can of course edit and customize the code in any way you want! That's why we freely provide the code for the template. The template is written in JavaScript.

Here's a useful link for developers who want to customize the swipe and spyglass app. It's the Storytelling Swipe template Github page: <https://github.com/Esri/swipe-map-storytelling-template-js>. Scroll down on that page to view the README.md file which contains some useful info to help you make customizations.

4. Tips

When you are done, add an entry for your app in ArcGIS.com

To help people find your swipe and spyglass applications, we recommend creating a web mapping application entry for your application in ArcGIS.com. You can use a photo related to the topic of your app, or a screenshot of the app itself as your thumbnail in the ArcGIS item page.

This entry is important because the public entries in ArcGIS.com are crawled by search engines like Google, so this can give your app some important extra exposure. It also makes it easy for the GIS community to find your work in ArcGIS.com. The team at Esri that works on Story Maps also monitors the new web mapping applications being added into ArcGIS.com looking for interesting examples to add into the [Story Maps community gallery](#).

Related to this, it is also a good idea to put a link to your swipe or spyglass app into the description section of the Details page for the web map that created for use in your app. In this way, if someone finds the web map that you created for use in your app, they'll have a way to get to the application you created the web map for.