Welcome to the Esri Storytelling Map Tour template

Do you need to download this template?

By downloading this template and making it available on your web server or web site you can easily create and configure a map tour. And because we provide the source code you can use it to add your own customizations, from minor tweaks to major changes.

But you don't have to download the template to use it!

You can create and deploy a map tour using the hosted version of this template that is built into ArcGIS.com. This is available to all ArcGIS Online account levels including the free Public account. We host the template for you so you don't have to download the template and put it on your server or website. There's an interactive WYSIWYG editor too that makes it easy to author your map tour. Using the hosted template is the easiest and fastest way to create a map tour.

To use the hosted map tour template, you start by making a map (it doesn't need to contain any layers), saving it, and then clicking the Share button in the ArcGIS Online web map viewer. In the Share dialog, choose the 'Make a Web Application' option and then choose the Map Tour template from the gallery of templates that appears, and continue with the steps that you see. When you configure the application, the interactive editor will open automatically.

The interactive editor gives you two options for handling the images in your map tour. You can use images that are already online, such as images stored in a photo sharing site like Flickr or that are stored on your own website. These images are referenced from your map tour via their URLs. You can also upload image files from your computer directly into your map tour. This upload option requires that you have an ArcGIS for Organizations subscription account and you have Publisher or Administrator privileges (because it automatically creates a hosted feature service for you in which your photos are stored as attachments).

You can also use the interactive editor in conjunction with the template download. For example if you build a hosted map tour with the interactive editor and then decide you want to do additional customization by downloading and installing the template, you can use the web map from the hosted map tour in your template installation. Similarly if you create a web map containing map tour points using the instructions in this document, or already have such a web map prepared, you can use your web map in the hosted map tour template instead of installing the template yourself.

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

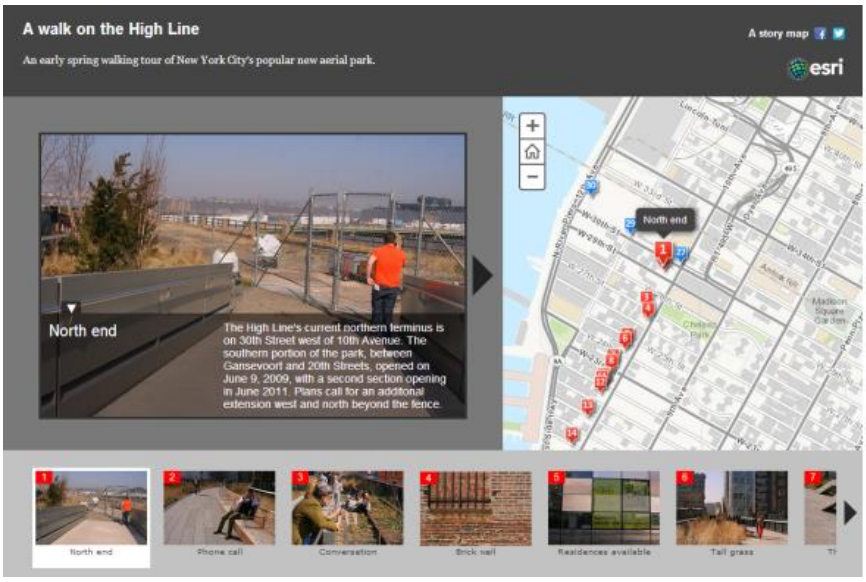
Useful resources

- This ArcWatch article is a useful summary of how to deploy a map tour using this template download: http://www.esri.com/esri-news/arcwatch/0513/make-a-map-tour-story-map

- We maintain a Github page for the map tour template: http://links.esri.com/storymaps/map_tour_github. This is where we post updates to the template. The page also contains useful information for developers who want to customize the map tour template. Using Github, developers can also share their enhancements and extensions to the template with others and also contribute to the ongoing development of the template.

Intro for new users

This template lets you publish an attractive, easy-to-use web application that lets you present a small set of places on a map in a numbered sequence through which users can browse. A large image showing the current place along with a descriptive caption is shown alongside the map. All the places in the tour are shown in a thumbnail strip at the bottom of the web page so the user can easily go to a specific place of interest if they don't want to step through all the places in order. They can also click or tap on a place on the map to see the image and caption for that place.



The map tour template lets people explore an area by stepping through a sequence of large photos with captions. View this application.

For some examples of map tour story maps published by Esri and the GIS community, see http://storymaps.esri.com

This template is designed for presenting geographic information where there is a strong photographic element to the story you want to tell. Some potential uses of this template include showing the world the work that your government department, organization, or agency does; showcasing key attractions in a city or region; introducing people to a park or preserve and educating them about what's there; touring people around a campus, outdoor art collection, or historical district; highlighting environmental or infrastructure improvements; educating people about areas of scientific or geographic interest; outreach to show where there are places you want to improve or protect; and creating online photo journals of a trip or event.

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 to make it easy to use the tour.

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.
Assembling your images and writing your descriptive captions is likely to be the most time consuming part of creating your map tour. The quality and impact of the images is a key part of these map tours. Get great images, even if the subject of your tour is fairly mundane. A good photographer can make even a fairly standard looking place appear interesting. Include some close ups or images with people to add variety. The images in your map tour are referenced by URLs so the image files can either reside on your website or web server, or on any other server which makes them accessible via a URL to the image file. Your images don't have to be located on the same web server as the template because they are referenced by URLs. You also have the option of using a feature service to define the points in your tour with the images stored in the service as attachments.

The map tour template accesses and displays an ArcGIS web map. You author this map using ArcGIS Online, Esri's online GIS and mapping system. You can access ArcGIS.com with either a free Public account (for use by individuals, community groups, small non-profit organizations, students, educators, etc.) or an ArcGIS For Organizations subscription (government, large non-profit, and commercial use). The web map you create is hosted and served by ArcGIS. ArcGIS for Desktop and ArcGIS for Server are not required, although those products can of course be used to create content for use in your map tour. The template you download just points at your ArcGIS web map and automatically applies formatting to it, etc. so you don't have to download any additional files or 'put' the web map anywhere.

In order to be displayed in the map template, your web map needs to contain a point layer defining each stop in the tour. The map tour template automatically applies its own numbered marker symbology to the points in the map tour layer. The template expects this layer to use a certain set of attributes (the map tour 'schema') to specify the name, description, and image for each stop in the tour. You can add a point layer to your web map containing all the map tour points by uploading a text file (i.e. a comma-separated value .CSV file, .TXT or .GPX), uploading a shapefile, or adding a feature service hosted on ArcGIS or served from ArcGIS Server. If you assemble your tour points in a text file, you can use either lat, long coordinates or addresses to geolocate the points, and you can use a program like Microsoft Excel to edit your file and then export it to CSV format. One convenient workflow is to create and edit your points in ArcGIS for Desktop using a geodatabase feature class and then export that to a CSV file.

You can also add additional supporting layers into the map. These layers will appear in your map tour to provide orientation, background, and any other geographic features you want the map to show in addition to the map tour points, such as a study area, a walking or driving route linking your tour points, etc. These layers can be in any format supported by ArcGIS web maps and they don't need to follow the map tour attribute schema because they are just being displayed on the map. The template displays these additional supporting layers using the symbology you specify in the web map.

Once you have downloaded the template you can customize the code any way you like. The most common customization most map story authors do is to change the logo and links in the top right hand corner of the template to reflect your own organization or agency.

If you want to create multiple map tours, you don't need to download the template multiple times. You can conveniently access your map tour template, and the customizations you have made to it, via a URL to your template that contains a parameter that sends the ID of the web map you want the template to display. In this way you can easily create a series of map tours all based on the single installation of the template. You configure your template to only accept web maps owned by your ArcGIS account name, so unauthorized map authors can't access your template in this way.

Intro for existing users

Read this section if you have already deployed a map tour using a version of the released template prior to March 19th 2013, and you are considering updating your deployment to use this version of the template. If you are a new user, or you deployed your map tour more recently than March 19th 2013, then you can skip this section.

You aren't required to update your existing map tour template deployment(s) to use the updated template, so the choice is up to you. Note that this release of the template is a rewrite and reorganization of the code, so updating an existing map tour deployment is not as easy as just overwriting the existing files. Bear in mind too that if your existing deployment includes any customization or modified code, such as using your own logo and organization's name in the top right corner of the application, these changes will have to be re-applied manually to the new template files, and the code required for your customization may need changing in this new version. We recommend doing a test install before attempting to redeploy your existing map tour(s) to this new template.

If you created an ArcGIS Online web map in order to deploy your existing map tour, then you are using the version of the template that we released on Feb 5th. You can use the same web map in this more recent version of the template without modification and everything should work. The set of configuration parameters has been changed and expanded in this release. You can skip the rest of this section and continue on to the next section.

If your map tour references a CSV file directly, without the use of an ArcGIS Online web map, you are using the original version of the map tour template. Here are the differences between how your existing template works and how the latest one works. Read these points to see what's new:

- Map tour points are longer loaded from a CSV file referenced on disk via a configuration parameter in the Index.html. Instead you load your map tour points into an ArcGIS web map, and then reference that web map via a configuration parameter in the Index.html. To create the ArcGIS web map you'll simply login to http://www.arcgis.com/home using either a free public account or ArcGIS for Organizations account subscription. You can then upload your existing CSV file into that web map as a layer. You can upload your map tour points as a CSV file or as a shapefile. Feature services are also supported now too. THE CSV_FILE and BASEMAP_URL parameters are no longer supported.

- The template uses the initial extent of the web map (the last extent at which it was saved) as the initial extent of the application, so the INITIAL_EXTENT configuration parameter is no longer supported.

- By default, the template uses the title and summary of the web map as the title and byline text that appears in the banner at the top of the map tour. You can override these with configuration parameters. This new handling of the title and byline is more flexible than in the previous version of the template because it enables them be edited by the web map author at any time, rather than requiring an edit to the Index.html file which may be less accessible in some cases.

- By default, the first record in your Locations layer is treated as being the intro or 'cover' picture for your map tour. This isn't shown on the map as a tour point. You will need to add this record as the first record in your existing Locations layer file. The INTRO_PICTURE, INTRO_NAME, and INTRO_DESCRIPTION configuration parameters are no longer supported. Using a new configuration parameter you can also override this behavior and tell the template to treat the first record as your first tour point and not have an intro picture in your map tour.

1. Download and install the template

If you've not downloaded the template zip file yet, you can get the zip file that contains it via this link: http://links.esri.com/storymaps/map_tour_template_zip

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 your map tour. 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\map_tour
```

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

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

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.

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 or Bluehost. In order to deploy a map tour you would simply download the template and then log in to your 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.

2. Assemble the images

For each image in your map tour, you need two image files, one at full size for display to the left of the map, and a small thumbnail image for display in the thumbnail strip at the bottom of the app. Images should be in JPG format. We recommend using a file naming convention to differentiate the full size images from their respective thumbnail images, such as buckwheat.jpg and buckwheat_thumbnail.jpg.

For the full size image, we recommend landscape orientation photos instead of portrait. Portrait orientation images can be used but on smaller screens like the iPad, a lot of the photo may be obscured by the caption, because text takes up more space when it is displayed in a tall area compared to a wide area. Although images of different sizes, shapes and orientation can be used in one map tour, we recommend using the exact same size and shape for all the images. In this way, the user won't be distracted by different sized images as they follow the tour. Also, the size and shape of the first image in your tour determines the size and shape of the image viewing area to the left of the map: the size and shape of that area doesn't change while a map tour is being viewed (unless the user resizes their browser window or changes the orientation of the mobile device they are holding).

For the full size image, the recommended size is 1000 pixels wide x 750 pixels tall (4:3 aspect ratio). This ensures your images are nice and crisp on a variety of monitor sizes and fill the image area to the left of the map nicely. Taller landscape images up to about 1000 x 800 also work OK, and fill the available space even more. Images in the common 3:2 aspect ratio work OK too, but they don't fill the available image area quite as fully and there is less space for the caption when the tour is viewed on a small display such as the iPad. The recommended size for 3:2 aspect ratio images is 1000 pixels wide x 667 pixels tall. The size you use may depend on the format you obtain your images in and how much manipulation of the images you are willing to do. Don't worry if your images don't match the recommendations above, because images that are larger or a different aspect ratio still work OK. We scale them down to fit. Images can be smaller but on large displays they will be stretched to fit which might make them fuzzy.

The thumbnail images should be landscape orientation in 3:2 aspect ratio and the recommended size is 200 pixels wide x 133 pixels tall. Larger thumbnails will be scaled down to fit.

Each point feature in your map tour layer normally references its image and its thumbnail image via two URLs. However, if you are creating an ArcGIS feature service for your map tour points, you also have the option to handle your images as attachments, in which case the images are stored in the feature service itself.

If your images will be accessed via a URL, which is normally the case, you can out them anywhere on the web. For example you could make them available via your own website or web server, or you could put them on public file or photo sharing site, such as Flickr, as long as you can get a direct URL to the actual image file itself, (not to a web page such as a page in a gallery in which the image file is embedded). If you choose to put the images on your own web server or website, you could put them in the same folder into which you copied the template file, but it is better to put them in a separate folder, especially if you intend to run multiple map tours from the same template installation.

Third party images on public websites can be accessed in the map tour via a URL but this of course doesn't give you control over the size, format and availability. Be aware of copyright restrictions on images. If there's a photo credit or acknowledgement, include it in the caption.

3. Assemble the map tour points layer

You have several options for assembling your map tour point layer. These are all standard options for adding data to ArcGIS web maps so these will probably already be familiar to you if you have been using ArcGIS.com.

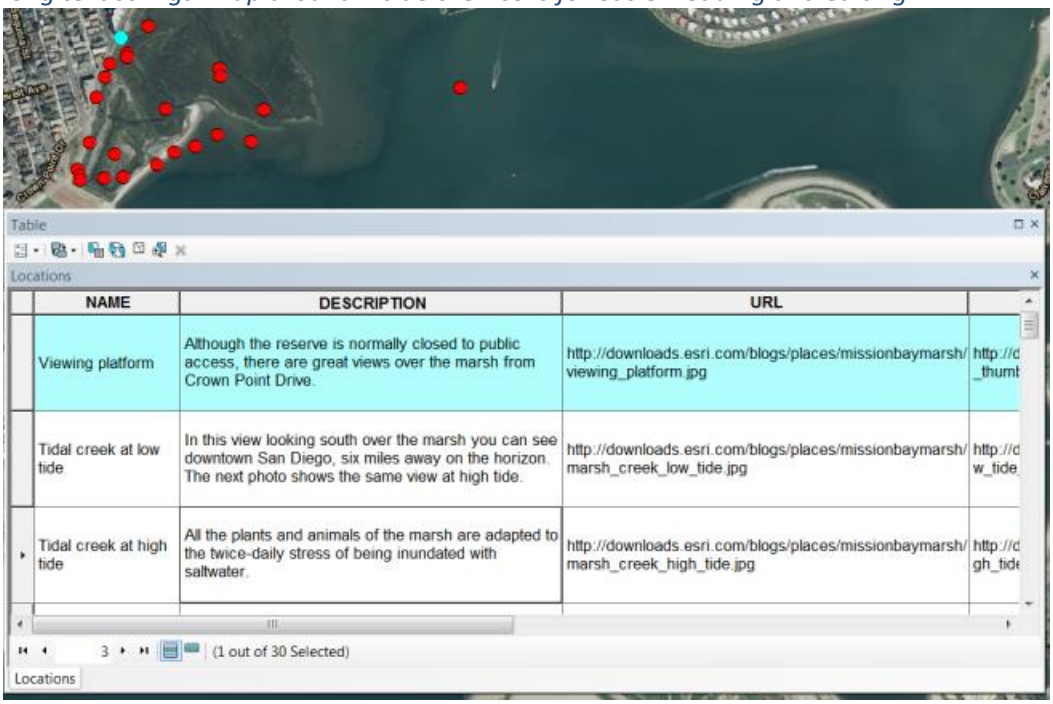
- Create a text file (i.e. a CSV file) which you can then upload into your web map as a layer. To create a CSV file you can use Microsoft Excel to create a spreadsheet which you then export as a CSV file, or you can so the work directly in a text file editor like Windows Notepad. Each line in your CSV file defines one point in your map tour. The geographic location of each point is given either by Lat/Long coordinate values or street addresses. This is the simplest way to create your tour point layer. We recommend using Excel to create your CSV file because it automatically handles CSV formatting such as enclosing text strings in double quotes if they contain commas.

  The screenshot below shows map tour points being edited in Excel, ready to be exported to a CSV file.

	A	B	C	D	E	F	G
1	**Name**	**Caption**	**Long**	**Lat**	**URL**	**Thumb_URL**	
2	Welcome to the reserve	The reserve is managed jointly. The Kendall Frost Mission Bay Reserve is part of the University of California Natural Reserve System (UC NRS) and is managed by the University of California San Diego (UCSD). The adjacent Northern Wildlife Reserve is managed by the City of San Diego.	-117.2296755	32.7920955	http://downloads.esri.com/blogs/places/missionbaymarsh/intro_picture.jpg	http://downloads.esri.com/blogs/places/missionbaymarsh/intro_picture_thumbnail.jpg	
3	Viewing platform	Although the reserve is normally closed to public access, there are great views over the marsh from Crown Point Drive.	-117.2314357	32.7925510	http://downloads.esri.com/blogs/places/missionbaymarsh/viewing_platform.jpg	http://downloads.esri.com/blogs/places/missionbaymarsh/viewing_platform_thumbnail.jpg	
4	Tidal creek at low tide	In this view looking south over the marsh you can see downtown San Diego, six miles away on the horizon. The next photo shows the same view at high tide.	-117.2313054	32.7922587	http://downloads.esri.com/blogs/places/missionbaymarsh/marsh_creek_low_tide.jpg	http://downloads.esri.com/blogs/places/missionbaymarsh/marsh_creek_low_tide_thumbnail.jpg	
5	Tidal creek at high tide	All the plants and animals of the marsh are adapted to the twice-daily stress of being inundated with saltwater.	-117.2313007	32.7921787	http://downloads.esri.com/blogs/places/missionbaymarsh/marsh_creek_high_tide.jpg	http://downloads.esri.com/blogs/places/missionbaymarsh/marsh_creek_high_tide_thumbnail.jpg	
6	What good is a marsh?	The marsh acts as a nursery for multiple fish, snails, crustaceans, and also as a water purification mechanism by filtering out contaminants and storing nutrients.	-117.2303956	32.7911462	http://downloads.esri.com/blogs/places/missionbaymarsh/marsh_ecosystem.jpg	http://downloads.esri.com/blogs/places/missionbaymarsh/marsh_ecosystem_thumbnail.jpg	

- If you have ArcGIS for Desktop, create and edit your points as a feature class and then export that feature class to a CSV file. This is a handy workflow that saves you having to manually assemble Lat/Longs or addresses for your points, because you can take advantage of ArcMap's editing tools to interactively place and edit the points in your layer without having to manually assemble Lat/long coordinates or street addresses. This workflow also lets you re-use your existing GIS data as map tour points. Before you export your feature class to CSV, you need to add Lat/Long fields in Double field type format and populate them using the Calculate Geometry command in the ArcMap table window. To export your feature class to CSV, look for the Export command in the table window's Options menu. ArcMap's CSV export automatically applies formatting to your data, such as enclosing text strings that contain commas in double quotes.

The screenshot below shows map tour points being edited in ArcMap prior to being exported to a CSV file. You can use the Cell Height setting in the ArcMap table window Appearance dialog to make the long text strings wrap around inside their cells for easier reading and editing.



- In ArcGIS for Desktop create a point shapefile, or re-use an existing shapefile, which you can then upload into your web map as a layer. Using a shapefile lets you position and edit your tour points in ArcMap interactively without having to manually assemble Lat/long coordinates or street addresses. Because shapefiles can be uploaded directly into ArcGIS web maps, there's no export you need to do. After you have completed your shapefile, simply zip all its constituent files up into a .zip file (for example by using the 'Send to Compressed Folder' option in Windows Explorer) and then you can upload it into your web map. However note that shapefiles impose a 254 character maximum length on text fields which may not be long enough for the captions you typically want to use in a map tour.

- Create an ArcGIS feature service containing point features which you can then add into your web map as a layer. You can create a feature service containing your map tour points in ArcGIS Online using an ArcGIS for Organizations subscription or with ArcGIS for Server. One advantage of using a feature service is that you have the option of storing your map tour images as attachments in the service, so that all the content is managed in one place.

Samples folder

Irrespective of which option you choose for assembling your map tour point layer, its attributes need to follow the schema that the template expects. This schema is described later in this section.

But the easiest way to assemble your map tour layer is to use one of the ready-to-use sample files that you can find in the \samples folder in this template download. These files already use the map tour schema, so you can simply fill in your own information in place of what is there.

There are some ready-made CSV and Excel files in each of the common geocoding styles. If you want to use Excel to assemble the point data, use the XLSX file and then export it to a CSV file using the Save As command in Excel:

```
\samples\ csv_file__lat_long
      Locations.csv
      Locations.xlsx

\samples\csv_file__address__one_field
      Locations.csv
      Locations.xlsx

\samples\csv_file__address__four_fields
      Locations.csv
      Locations.xlsx
```

There's a shapefile called Locations, along with the MXD file used to edit it. In the MXD file, we've formatted the Locations layer's table window to make it easy to work with long strings:

```
\samples\shapefile
      Locations
      Locations.zip
      Map Tour.mxd
```

There's a geodatabase point feature class provided in both LPK and MPK formats:

```
\samples\feature_class
      Locations.lpk
      Map Tour.mpk
```

You can use this geodatabase point feature class sample if you want to define your map tour points as a geodatabase feature class in ArcMap and then export them to a CSV file. Before you export the layer to a CSV file, be sure to recalculate the LONG and LAT fields in the layer, so the locations of your map tour points are captured in the layer's attribute table before you export it. You can also use this sample geodatabase feature class if you want to create a feature service, in which case you can delete the LONG and LAT fields (because they aren't needed in the case of a feature service. This sample references the images via URLs rather than storing them as attachments. If you want to store your images as attachments in the feature service you create you can delete the URL and THUMB_URL fields. The full sized images need to be the first attachment in the service and the thumbnail images need to be the second attachment.

Map tour layer schema

Here is a list of the attributes the map tour template expects your map tour point layer to have. If you have used one of the samples that come with the template you can probably skip this section because your map tour layer will already have the correct schema.

The order of the fields doesn't matter. Neither does the case of the field name. Your file can also contain additional fields, but they are ignored by the template and the information in the extra fields doesn't appear in the map tour. For example, if you have a point feature class in ArcMap containing additional attributes that

you want to export as a CSV file, you don't need to remove or rename those existing fields as long as they don’t conflict with the field names the template is expecting.

(If you are using a feature class or shapefile to assemble your points, note the list below doesn't include the ID and SHAPE fields that ArcGIS for Desktop automatically manages. If you are using a shapefile there is a 254 character limit to the length of text strings, including spaces).

NAME A text string containing the name of the place. This can contain multiple words. Don't make these too long. The name appears next to the caption on top of the full sized image and underneath the thumbnail image, where there is space for it to wrap around onto a second line. There's not a third line so names that don't fit get truncated. (This field can alternately be called TITLE).

CAPTION A text string containing the caption. Your caption text can include HTML tags to format the text or provide hyperlinks. See below for some examples of this. Try and use no more than approximately 350 characters (including spaces) for your captions. Longer captions are allowed and on a big screen it may seem like there is lots of space but when a map tour is displayed in a small browser window or a small display like the iPad in landscape orientation the area for the caption is limited, and users may have to scroll to see the complete caption. For this reason we recommend reviewing your map tour on an iPad in landscape orientation before finalizing your captions to see how they behave. (This field can alternately be called COMMENT or DESCRIPTION although DESCRIPTION can't be used in a shapefile because field names that long aren't supported in that format).

URL The full URL path and name of the full size image starting with http:// or https://. Relative paths are also supported if your images are installed on the same web server or location on your website as the map tour template itself. You can take advantage of this capability if you want to store your image files with the template files and avoid having to specify the full URL to each image in your map tour point file. For example, if you store your image files in the same folder as the map tour template, you can specify them in this URL field just as file names, with no URL path. (This field can alternately be called PICTURE, PIC or PIC_URL). If you are using a feature service you have the option to omit this field and instead store the images in the feature service as attachments. If you use attachments, the full size images have to be the first attachment in the feature service.

THUMB_URL The full URL path and name of the thumbnail image starting with http:// or https://. Relative paths are also supported if your images are installed on the same web server or location on your website as the map tour template itself. (This field can alternately be called THUMB or THUMBNAIL). If you are using a feature service you have the option to omit this field and instead store the images in the feature service as attachments. If you use attachments, the thumbnail images have to be the second attachment in the feature service.

ICON_COLOR *Optional* field that allows you to make the color of some or all of the numbered marker symbols used to show each tour point be blue, green or purple instead of the default red. We recommend keeping things simple and just using one color for all the tour points, unless there's a reason that will be obvious to the user of your tour (remember there's no legend in the map tour). If this field is omitted, all the tour points will be shown with a red symbol. The value of this field must be one of the following single letters: R, G, B, P. (This field called alternately be called COLOR or STYLE).

Field name tip: If you have existing data that you want to use in map tours without changing field names to match the schema shown above, you can customize the set of field names that the template expects in the /app/maptour-config.js file in the template. In that file, look for the FIELDS_CANDIDATE settings.

If you will be uploading your points into your web map in a CSV file, you'll also need to specify the geographic location of each point. (This is the standard functionality in ArcGIS Online for uploading CSV files into web maps as layers so you can refer to the ArcGIS Online help to find out more details. In CSV files the locations of the points are specified either as latitude and longitude coordinate fields in decimal degrees, a single field containing a complete street address, or four fields containing each of the components of the street address, as shown below:

LONG Longitude (X) coordinate in decimal degrees, *e.g. -117.17582*

LAT Latitude (Y) coordinate in decimal degrees, *e.g. 32.73634*

Or:

ADDRESS Text string containing the entire street address, *e.g. 4015 Crown Point Drive, San Diego, CA 92109*

Or:

ADDRESS Text string the street or road name and number, *e.g. 4015 Crown Point Drive*

CITY Text string the city or town name, *e.g. San Diego*

STATE Text string containing the state name or abbreviation, *e.g. CA*

ZIPCODE Text string containing the zip code or post code, *e.g. 92109*

CSV file tip: We recommend using lat/long fields in your CSV file instead of street addresses to specify the location of your points. Using lat/long gives you complete control over the exact location of your points, whereas street addresses are anchored to the street network and for many places, like parks, etc, the actual street number location or mailing address may not be the best location for the place's marker symbol. You can edit the locations of the places in your CSV file interactively after you have uploaded them into the web map, so you don't need to assemble the exact locations in the CSV file before you upload it. However, in our experience the best practice is to put the exact lat/long values into the CSV file before uploading it into your web map instead of relying on interactive editing of the points. In this way, if you find you need to reload the CSV file - for example, to reorder the points or add new ones - you won't need to reapply any manual edits to the data after the reload. An easy way to gather lat/long coordinates for the places in your CSV file is to use the Measure tool in the ArcGIS.com map viewer with any web map showing your area of interest.

If you are going to create your CSV file by exporting a feature class from ArcMap, your feature class attribute table must contain the lat/long or address fields before you export it to CSV format. Lat/long is best because it works for any type of point location and doesn’t require address geocoding. The Lat/Long fields in your feature class attribute table can be populated and updated automatically in ArcMap using the Calculate Geometry command.

If will be uploading your points as a shapefile or using a feature service you don't need to include these fields because those formats automatically stores the point locations.

Tour point order

The order of the records in your map tour point layer determines the order of the places on the map. To reorder your tour points you therefore need to change the order that their records appear in the layer. You can do this manually in a CSV file but if you are using Excel to create your CSV file it is easiest to add an additional column into the file containing the numeric sequence of your points, and then just sort your records on that field in Excel if you want to change their order. Similarly, if you are creating your tour points as a shapefile feature class in ArcMap, it is useful to include an additional numeric field in your layer's attributes containing the numeric sequence you want. You can then edit that field and sort the layer's records on that field using the Sort geoprocessing tool in order to change the tour point order. Use the Short integer data type for the number field you add.

The intro image and caption

By default the first record in your layer is treated as being the intro or 'cover' picture for your map tour. This isn't shown on the map as a numbered tour point. This enables you to show a photo and some text to introduce the tour before people advance to the first place. Even though it isn’t shown on the map, this first record in your map tour point layer still needs to be a geographic feature with a point location like all the other points in your tour. This is so it is accepted as a feature by the web map when you add into the map. So you'll need to specify a location for this first record, even though by default it won't be shown in your map tour as a point.

If you don't want your map tour to have an intro picture, and would rather the map tour open up showing the first point in the tour, there is a configuration parameter you can specify to override the intro, in which case the first record in your layer is treated as the first map tour point.

Layer name and position in your web map's drawing order

You can give the CSV file, shapefile or feature service you create any name. 'Locations' is a good name to use, and it was the default name used in earlier versions of this template. So if you are using a CSV file you can call your file Locations.csv. The map tour template uses the point feature layer (i.e. layer based on CSV, shapefile or feature service) in your map that highest in the drawing order. So for most web maps the template will find your layer automatically, especially as most web maps used in the map tours just contain one layer, the map tour layer, in addition to the basemap. If you will be adding several layers to your web map, and you want to make sure the template uses the correct one as the map tour layer, there is a configuration parameter you can use to tell the template the name of your map tour layer. See the details below.

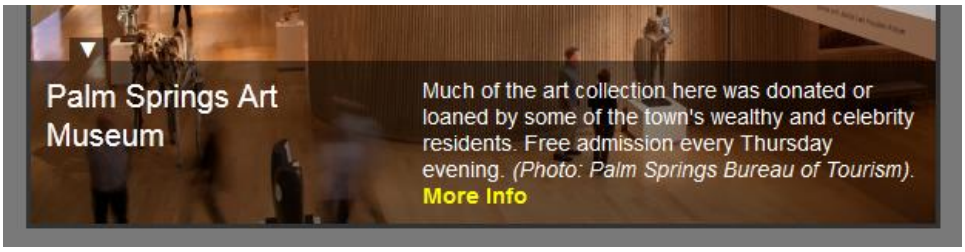
Formatting your caption text using HTML tags

The caption text can include HTML tags to define formatting and links. For example, the caption text below is formatted so that the photo credit part of the caption appears on a separate line in a smaller italic font than the rest of the caption:

Sherman's Deli and Bakery	This bustling New York-style deli is a long-time favorite of locals, visitors, and convention attendees. Breakfast starts at 7.00 a.m. daily, so get there early! (Photo: Eric Laycock/Esri)

In the example below, the caption text below contains a hyperlink. Use the target attribute to make the link open in a new browser tab so that the user doesn't lose their place in the tour if they follow the link.

Palm Springs Art Museum	Much of the art collection here was donated or loaned by some of the town's wealthy and celebrity residents. Free admission every Thursday evening. (Photo: Palm Springs Bureau of Tourism). More Info



The examples above show how you would specify the formatting in the caption if you are editing your tour points in Excel or ArcMap. If you are editing your CSV file directly in a text editor like Windows Notepad, you have to double up any double quotation marks inside HTML tags if the caption text is itself inside double quotes. So the font size attribute is specified as ""1"" in the example below because the entire caption string is inside double quotes (which is how the CSV format handles strings containing commas). The doubled up quotation marks tells the CSV file that you want the caption string to contain a double quote character, and prevents it from handling the double quote as though it was the end of the string.

```
Sherman's Deli and Bakery,"This bustling New York-style deli is a long-time favorite of
locals, visitors, and convention attendees. Breakfast starts at 7.00 a.m. daily, so get
there early!<br><i><font size=""1"">(Photo: Eric Laycock/Esri)</font></i>",-
116.543243,33.822873,http://downloads.esri.com/blogs/places/palmsprings/tour/shermans_de
li.jpg,http://downloads.esri.com/blogs/places/palmsprings/tour/shermans_deli_thumbnail.j
pg
```

There's no need to double up quotation marks in HTML tags if you are using Excel, ArcMap, or any other app that lets you export a CSV file, because those apps will automatically do that for you as part of the export.

4. Create your web map

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 and then loading in the tour points layer you created in the previous step.

After loading in your tour points layer, you don't need to specify symbology or popups for it in the web map. The template automatically defines how the tour points layer is handled in the application.

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 the map tour points, or other supporting layers in the map, 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 optional supporting layers

In addition to the layer containing the points in your map tour, and the basemap that you choose, you can also add additional data into your web map that the map tour application will display. For example if your map tour is of a particular park, reserve or study area, you could add a boundary into the web map showing the outline of that area. Or if your map tour is a walking or driving tour you could add a line to the map showing the recommended route to take between the different points in the tour.

You can draw these additional features onto your web map using the built-in editable map notes functionality in ArcGIS.com. (Note that if you use editable map notes to add additional features, they will be drawn underneath the tour point symbols in the map tour application, even though in the web map, these editable map note layers appear above the tour points layer in the drawing order). You can also upload these additional layers as point, line or polygon shapefiles created with ArcGIS for Desktop or any type of services served with ArcGIS Server or via an ArcGIS organizational subscription.

A powerful feature of ArcGIS is that you can also add any other publically available content into your map tour 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.

You should symbolize any additional layers that you add in your web map in the way you want them to appear on your map tour. However you don't need to define popups for these supporting layers. The map tour template doesn't supporting getting popups or any other information from supporting layers: they are just for display.

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 map tour 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.

Your initial extent is an important information design choice for your map tour application. You can choose between having all of the tour points visible in the initial extent or just showing a subset of them. In the latter case, the template will automatically pan the map to show the user the location of the tour point the user has advanced to if it isn't visible in the map's current extent. Your choice may depend on the density of places on your map.

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 map tour 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.

5. Configure the template

Now you've created your web map and shared it publically, you are ready to configure the template to tell it to use your web map, to use your organization's own logo instead of Esri's logo, 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 `webmap` property to be the ID of your web map. This tells the application which web map to use. For example, our National Mall walking tour web map has this URL http://www.arcgis.com/home/webmap/viewer.html?webmap=a5019e8c55d547eab69c0777dcd7509a and the ID of this map is the last part a5019e8c55d547eab69c0777dcd7509a.

```
configOptions = {
      // The web map id (can be overridden through URL)
      webmap: "a5019e8c55d547eab69c0777dcd7509a",
```

(Make sure you don't delete the comma at the end of the line when you edit this parameter or any others).

Leave the `authorizedOwners` parameter in the template blank. You've specified the webmap ID so there's no need to specify `authorizedOwners.`

Configure optional settings

The template configuration section contains several optional settings. The key ones are listed below.

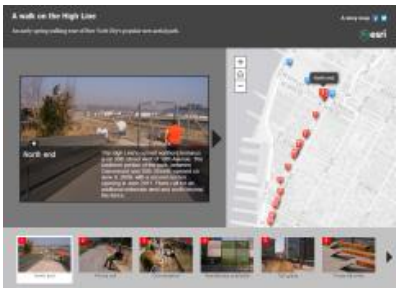
The `zoomLevel` parameter lets you optionally specify a scale to which the map tour will automatically zoom when the user goes from your first tour point to the next one. By making the map auto-zoom at that point you can establish the scale at which you think the user should ideally view the tour. This zoom level scale is maintained as the user proceeds through your tour. But if the user manually zooms in or out, the map tour respects their choice and no longer applies your auto zoom level. The zoomLevel is off by default (set to -1). You specify the zoom level as a number from 0 to 19. These numbers correspond to ArcGIS Online basemap scale levels. See this help link for the list of these. The largest available scales will depend on the basemap you are using.

```
// Optional zoom level to be applied for the story points following
// introduction (e.g: 0 to 16 for Gray Canvas, 0 to 19 for Street
// Map, -1 to disable)
zoomLevel: -1,
```

The `firstRecordAsIntro` parameter lets you control whether the first record in your map tour layer to be handled as an intro for the application. This is `true` by default. If you then change this to be `false` then the first record in your map tour layer will appear as point 1 in the tour.

```
// Use the first data record as an introduction instead of a point
// (can be overridden through URL)
firstRecordAsIntro: true,
```

The `layout` parameter lets you choose between the default `three-panel` layout, which has the image over to the left of the map in a separate panel:



and the `integrated` layout in which the image floats on top of the map:

(This integrated layout works best when the images in your tour are all exactly the same size and shape so that the floating image area doesn't keep changing size as the user proceeds through the tour):

```
// Select the application layout between "three-panel"
//  and "integrated"
layout: "three-panel",
```

The `sourceLayerTitle` parameter lets you specify by name which point layer in your web map you want the template to use as the tour point layer. You don't normally need to specify this because the template automatically uses the upper most visible feature-based layer in your web map as the map tour layer and that handles most cases. But there may be some advanced situations in which there are other point feature layers above your map tour point layer, in which case you can use this parameter to tell the template which layer name to use.

```
// Optionally force a web map layer to be used as the tour points
// data source (can be overridden through URL). Otherwise the upper
// visible point layer is used (excluding map notes)
                  sourceLayerTitle: "",
```

Add your own logo and links to the title bar of your map tour

In the \app folder in the template download, open the **maptour-config.js** file in a text editor. These parameters at the top of the file let you change the logo graphic and links shown in the top right hand corner of the story map. To use your own logo graphic, put the image in the resources/icons folder in the template and update the HEADER_LOGO_URL parameter with the name of your file.
You can also change the colors used by the story map:

```
// Header Logo
HEADER_LOGO_URL: "resources/icons/esri-logo.png",
HEADER_LOGO_TARGET: "http://www.esri.com",
// Header top right link
HEADER_LINK_TEXT: "A story map",
HEADER_LINK_URL: "http://storymaps.esri.com/home/",
// Header, Picture Panel and Carousel colors
COLORS: ["#444", "#797979", "#c2c2c2"],
```

Multiple map tour configuration

This enables you to use your map tour template installation for multiple map tours without having to make multiple installations of the template. This can be very convenient because you can perform customizations, like adding your organization's logo to the upper right hand corner of the template, once and then use that installation for multiple map tours. In this configuration, instead of putting the ID of a web map into the `webmap` property in the Index.html file, you'll pass the template the ID of the web map in the URL that is used to launch the map tour template.

1. Leave the `webmap` property empty. In the `authorizedOwners` property add one or more ArcGIS account user names. These are the ArcGIS users whose web maps the template will accept as valid inputs via the URL that is used to launch the template. In the example below, web maps owned by two ArcGIS accounts have been specified as valid for use in your map tour.

```
configOptions = {
      // The web map id
      webmap: "",
      // The list of web map owner (e.g. ["user1"], ["user1", "user2"])
      authorizedOwners: ["TourismDepartment", "GISDepartment"],
```

2.
In the URL you use to launch the template, include the `webmap` parameter that specifies the ID of the web map owned by the authorized owners that you want the template to display:

```
http://www.example.com/map_tour/?webmap=a5019e8c55d547eab69c0777dcd7509a
```

That's it.

3. *Optionally*, the `firstRecordAsIntro`, `sourceLayerTitle` and `zoomLevel` parameters can also be added to the URL.

Add the `firstRecordAsIntro` parameter and make it equal to false if you don't want the first record in the map tour layer to be treated as an intro panel for the web map:

```
http://www.example.com/map_tour/?webmap=a5019e8c55d547eab69c0777dcd7509a&firstRecordAsIntro=false
```

Add the `sourceLayerTitle` parameter if the web map contains multiple point layers and you want to make sure that the template uses the correct layer as your map tour layer:

```
http://www.example.com/map_tour/?webmap=a5019e8c55d547eab69c0777dcd7509a&sourceLayerTitle=mymaptourpoints
```

Add the `zoomLevel` parameter if you want the map tour to automatically zoom to a particular scale as the user proceeds through the tour. You specify the zoom level as a number from 0 to 19. These numbers correspond to ArcGIS Online basemap scale level. See this help link for the list of these.

```
http://www.example.com/map_tour/?webmap=a5019e8c55d547eab69c0777dcd7509a&zoomLevel=17
```

You can combine these optional parameters if you need to:

```
http://www.example.com/map_tour/?webmap=a5019e8c55d547eab69c0777dcd7509a&firstRecordAsIntro=false&sourceLayerTitle=mymaptourpoints&zoomLevel=17
```

Note that the ability to access your map tour template in multiple map tour configuration is disabled if the `webmap` property in the index.html file is set to the ID of a web map and the `authorizedOwners` property is blank. Multiple map tour configuration is only enabled if the `webmap` property is blank and the `authorizedOwners` property is set to one or more owner names. The list of `authorizedOwners` owners ensures that unauthorized users can't launch their map tours using your installation of the template.

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 map tour template. It's the Storytelling Map Tour template Github page: http://links.esri.com/storymaps/map_tour_github. Scroll down on that page to view the README.md file which contains some useful info to help you make customizations.

Tips

Keep your tour short and sweet

There's a limit of 99 map tour points in the map tour template. Most map tours will of course be significantly shorter than that. Don't expect your audience to want to step through too many tour points. You might find your subject fascinating, but don't assume they will too!

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

To help people find your map tour application, we recommend creating a web mapping application entry for your map tour in ArcGIS Online once your tour is up and running. Here are some nice examples of entries users have created for their map tours.

> Mission Bay Marsh Reserve Map Tour
> http://www.arcgis.com/home/item.html?id=eb42260bbe404b739206856d6e55067d
>
> Canada from the International Space Station
> http://www.arcgis.com/home/item.html?id=fbd0530761dc4e90a662cb1859bd4392
>
> City of Helena, MT - Public Art Tour
> http://www.arcgis.com/home/item.html?id=366fb3314eb846a8aae43c820d8ecba2

You can use one of the images from your tour for the thumbnail, or a screenshot of the tour.

This entry is important because the public entries in ArcGIS Online are crawled by search engines like Google, so this can give your map tour some important extra exposure. It also makes it easy for the GIS community to find your work in ArcGIS Online. The team at Esri that works on Story Maps also monitors the new web mapping applications being added into ArcGIS Online looking for interesting examples to add into the Story Maps community gallery. Put 'map tour' and 'story map' as some of the tags for your entry so it shows up in our searches.

Add a link to your map tour into the entry for your web map in ArcGIS Online

It is also a good idea to put a link to your map tour into the description section of the Details page for the web map that created for use in your map tour. For example on this page, the map author has put a big 'please click here' link in the Description section of their web map:

> Mission Bay Marsh Reserve
> http://www.arcgis.com/home/item.html?id=6c6007ac04c44220bc21bcf08c24f31a

In this way, if someone finds the web map that you created for use in your tour, they'll have a way to get to the application you created the web map for. You could also go as far as to set the symbology and configure popups for the features in your web map, so that if someone happens to launch the web map that you created for your map tour separately from your map tour, they'll still get a nice experience.