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 and tweaks.

But you don't have to download the template to use it! If you are using an ArcGIS for Organizations subscription you can create and deploy a map tour using the 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 map tour. Look for it in the Make A Web Application section of the Share dialog in the ArcGIS.com web map viewer.

The rest of this document describes how to use the downloadable 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.
- An online photo journal of a trip or an 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.

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 map tour 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.

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. There's no software to install. 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 story map using the map tour template and are considering updating your deployment to use this updated template. First time users of the template can skip this section and jump ahead to the next section.

Here are the main changes in the map tour template since the last update (Feb 5th 2013). If you downloaded the template since that date read this list to see what's new.

- The template now works on smartphones. On smartphones and smaller tablets, the template's layout automatically rearranges itself to make it easy to use the tour. Previously the template wasn't easy to use on devices smaller than the iPad Mini. You can see how your map your will look on a small screen by just resizing your browser window when your map tour is displayed. Smartphone support simply rearranges the web page layout when it is displayed in the web browser on a phone. There's no app to download or settings to make.

- The template now also supports map tour points in a layer based on an ArcGIS feature service. Previously only layers based on CSV files and shapefiles were supported. Those file types are still supported.

- The template can now be accessed as a hosted template. This means that like other ArcGIS.com templates you can access the template via a URL instead of downloading it and installing it on your own web server or web site. 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 map tour and makes it really easy to create a map tour without having to assemble your map your places in a file first. The hosted option and interactive editor is only available if you have an ArcGIS for Organizations subscription. Look for it in the Share > Make a Web Application dialog in the ArcGIS web map viewer. The interactive editor automatically generates an ArcGIS feature service containing your map tour points. If desired you can use the interactive editor to create your map tour points, and then display that feature service in a map tour you deploy using the downloadable version of the template. This allows you to perform unlimited customization of the template code while using the interactive editor to create and maintain your tour points.

- When you deploy the downloadable template, you can how use the same installation of the template to run multiple map tours. You no longer have to make a separate installation of the template for each map tour you create. Instead you can now conveniently access your map tour template 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, with all the customizations you have made to it. You configure your template to only display web maps owned by your ArcGIS account name, so unauthorized map authors can't access your template in this way.

- We've reintroduced a popup label to show the location of the currently selected map tour point (our Feb 5th update removed the popup). This new popup works much better than the original one including better repositioning at the edge of the display, and wraparound of long text. Users can also close the popup can also be closed by clicking or tapping the map background.

- In the Index.html there's a new zoomLevel parameter you can enable that lets you 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.

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 some of 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 are already using the map tour template update we released on Feb 5th 2013 you will already have created a web map containing your map tour. This same web map can be used in this latest release of the template 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 you are using an older version of the map tour template downloaded prior to the Feb 5th 2013 update, 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 configuration 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 optional 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
```

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. Assemble the images

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!

For each image in your map tour, you need two 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.

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 140 pixels wide x 93 pixels tall. Larger thumbnails will be scaled down to fit.

Each point feature in your map tour layer references its image and its thumbnail image either by a URL (in the case of a CSV, shapefile or feature service-based map tour layer) or by an image attachment stored with the feature (this option is only available for feature service-based map your layers). If your images will be accessed via a URL, the easiest thing to do is to put them make them available via your own website or web server. You could put the files in the same folder into which you copied the template file. Or you could copy them into a separate folder. You could use a file naming convention to differentiate the full size images from their respective thumbnail images, such as buckwheat.jpg and buckwheat_thumbnail.jpg. However the images don't have to be in the same folder. You could alternatively put your images on a 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.

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 four options for assembling your map tour point layer.

- 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. 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.

- 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.

- 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. Note that this option imposes a 254 character maximum length on text fields which may not be long enough for the captions you want to use. After you have completed your shapefile, zip all its constituent files up in Windows Explorer into a .zip file ready to upload it into your web map.

- 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 using ArcGIS Server or using ArcGIS with an ArcGIS for Organizations account.

These are all standard options for adding data to ArcGIS web maps so these will already be familiar to you if you have been using ArcGIS.com.

Tour point order

The order of the records in the layer determines the order of the places on the map. 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 tour point. This enables you to show a photo and some text to introduce the tour before people advance to the first place. In your layer, this first record will still require a geographic location like the other map tour points, even though it isn't shown on the map. This is so it is accepted as a feature by the web map. 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 point.

Tour point color

By default, all the tour points in your map will be shown with red numbered symbols on the map. If you want to use blue symbols instead, or if you want to use red symbols for some points and blue for others, there's a field you can include in your layer that specifies the icon color. 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.

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

You can give the file or 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.

Assembling your map tour points in a CSV file

Each line in your CSV file defines one point in your map tour. In addition to the name, caption, URL for the full size image and URL for the thumbnail image for each point, you'll also need a georeference. This can be either 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. (This is the standard functionality in ArcGIS.com for uploading CSV files as layers, so you refer to the ArcGIS.com help to find out more about this).

You can use a spreadsheet program like Microsoft Excel to assemble your points and then export it as a CSV file, or you can do the work directly in a text file editor like Windows Notepad.

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	

The \samples folder in the template download includes some ready-made CSV and Excel files you can use as the basis for your own file:

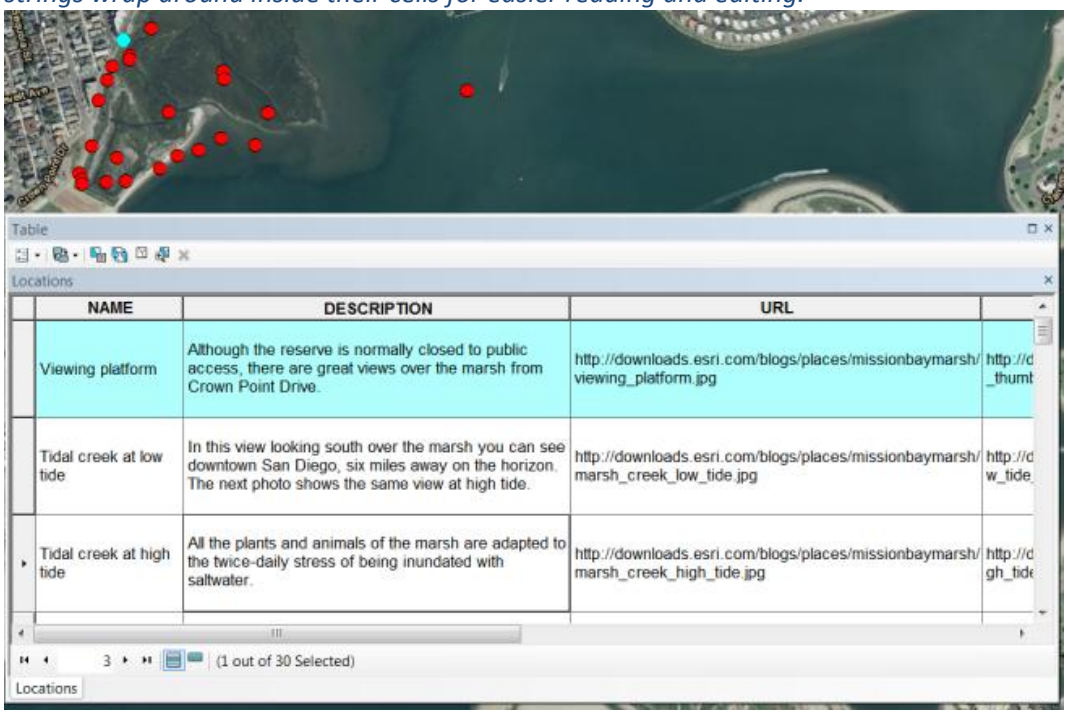
```
\samples\csv_file__address__four_fields
      Locations.csv
      Locations.xlsx

\samples\csv_file__address__one_field
      Locations.csv
      Locations.xlsx

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

You can also create your tour points in ArcGIS Desktop as a point feature class and then export it to a CSV file. This is a really useful workflow for creating the points for your map tour (or any other web maps) 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. In ArcMap simply create your point layer as a geodatabase feature class. The \samples\feature_class folder in the template download includes a layer package containing a geodatabase feature class with the required fields. When you've finished editing your points populate the LONG and LAT fields using the Calculate Geometry command before exporting the table to a CSV file using the Export command in the table window's Options menu.

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.



Here is a list of the fields read by the map tour template from a layer based on a CSV file. The order of the fields doesn't matter. Neither does the case of the field name. The CSV 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. Text strings containing commas are double-quoted in CSV files (programs like Excel do that for you automatically when you save a spreadsheet out in CSV format).

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. (This field can alternately be called TITLE).

CAPTION A text string containing the caption. (This field can alternately be called COMMENT or DESCRIPTION, which is the field name used in many existing CSV files that map authors have created to define map tours). Your caption text can include HTML tags to format the text or provide hyperlinks. See below for some examples of this.

URL The full URL path and name of the full size image starting with http:// or https://. Relative paths aren't supported. There's no default location if a full URL isn't specified. (This field can alternately be called PICTURE, PIC or PIC_URL).

THUMB_URL The full URL path and name of the thumbnail image starting with http:// or https://. Relative paths aren't supported. There's no default location if a full URL isn't specified. (This field can alternately be called THUMB or THUMBNAIL).

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 red. 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).

If your points will be geolocated using longitude and latitude, you need to include:

LONG Longitude (X) coordinate in decimal degrees

LAT Latitude (Y) coordinate in decimal degrees

If your points will be geolocated via a single street address field, you need to include:

ADDRESS Text string containing the entire street address. For example:
4015 Crown Point Drive, San Diego, CA 92109

If your points will be geolocated using separate street address component fields, you should include:

ADDRESS Text string the street or road name and number. For example:
4015 Crown Point Drive

CITY Text string the city or town name For example:
San Diego

STATE Text string containing the state name or abbreviation. For example:
CA

ZIPCODE Text string containing the zip code or post code. For example:
92109

Note: If you will be using the first record as the intro or cover picture for your map tour, simply copy the values for the geolocation fields from one of the other tour points. Why do you have to provide geolocation values for the intro record when that record won't actually appear on the map? This is because the ArcGIS web map will not accept the record unless it has geolocation information. You can leave the THUMB_URL and ICON_COLOR field blank for the intro record.

Assembling your map tour points in a shapefile

You can use ArcMap to create and edit a point shapefile to contain your tour points. This may be easier than working with a CSV file because you can interactively edit the location of the points without collecting Lat/Long coordinates or street addresses manually. After you have completed your shapefile, zip all its constituent files up in Windows Explorer into a .zip file ready to upload it into your web map.

The \samples\shapefile folder in the template download includes a ready-made shapefile you can use as the basis for your own file:

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

Here are the fields read by the map tour template from a layer based on a shapefile file. The order of the fields doesn't matter. Neither does the case of the field name. The shapefile 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. (The usual FID and SHAPE fields also have to be present of course but they are not listed below).

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. Use the maximum text field length of 254 characters for this text field even though the names shouldn't be that long. (This field can alternately be called TITLE).

CAPTION A text string containing the caption. Use the maximum text field length of 254 characters for this text field. (This field can alternately be called COMMENT). Your caption text can include HTML tags to format the text or provide hyperlinks. See below for some examples of this.

URL The full URL path and name of the full size image starting with http:// or https://. Relative paths aren't supported. There's no default location if a full URL isn't specified. Use the maximum text field length of 254 characters for this text field. (This field can alternately be called PICTURE, PIC or PIC_URL).

THUMB_URL The full URL path and name of the thumbnail image starting with http:// or https://. Relative paths aren't supported. There's no default location if a full URL isn't specified. Use the maximum text field length of 254 characters for this text field. (This field can alternately be called THUMB or THUMBNAIL).

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 red. 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).

Note: If you will be using the first record as the intro or cover picture for your map tour, simply add the location for this feature anywhere in your study area. This point won't appear on the map. You can leave the THUMB_URL and ICON_COLOR field blank for the intro record.

Tip: It is useful to also include a numeric field with which the points are sequentially numbered. This isn't required. The template doesn't use this field to determine the order of the records, but by sorting the shapefile's records on this field using the Sort geoprocessing tool in ArcGIS Desktop, you can easily change the ordering of the records to change the order of the tour points. For example you can add a Short Integer type field called NUMBER of Precision 2 (so it can hold two digit integers up to 99). To reorder the points in the map tour layer you can manually edit the values of this field to be in the sequence you want, and then use the Sort tool to sort the shapefile based on this field.

Tip: Remember that if you want to assemble your map tour points in ArcMap but don't like the 254 character limitation that the shapefile format imposes on text fields, you can create your points in a geodatabase feature class and then export them to a CSV file. The \samples\feature_class in this template download includes a ready-made feature class you can use. You'll need to populate the LONG and LAT fields before doing the export.

Assembling your map tour points in an ArcGIS feature service

You can create a feature service in ArcGIS using your ArcGIS for Organizations subscription or ArcGIS Server containing your map tour points. 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. The template automatically applies the numbered marker point symbology to the feature service, so there is no particular symbology you need to apply to your service before you publish it.

The `\samples\feature_class` folder contains a layer package (LPK) and a map package (MPK) both containing a geodatabase feature class point layer you could use as the basis for your own feature service. This sample references the images via URLs rather than storing them as attachments. (Note that this sample feature class has LONG and LAT fields too: these have been added for the convenience of people who want to use this feature class to edit map your points and export them to a CSV file: if you are going to use the feature class to publish a feature service you can delete those fields):

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

Here are the fields read by the map tour template from a layer based a feature service. The order of the fields doesn't matter. Neither does the case of the field name. The feature class 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. (The usual OBJECTID and SHAPE fields also have to be present of course but they are not listed below).

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. (This field can alternately be called COMMENT or DESCRIPTION). Your caption text can include HTML tags to format the text or provide hyperlinks. See below for some examples of this.

URL The full URL path and name of the full size image starting with http:// or https://. Relative paths aren't supported. There's no default location if a full URL isn't specified. (This field can alternately be called PICTURE, PIC, or PIC_URL). Alternatively, you can omit this field and the next 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 aren't supported. There's no default location if a full URL isn't specified. Use the maximum text field length of 254 characters for this text field. (This field can alternately be called THUMB or THUMBNAIL). Alternatively, you can omit this field and the one above and instead store the images in the feature service as attachments. If you use attachments, the thumbnail photos 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 red. 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).

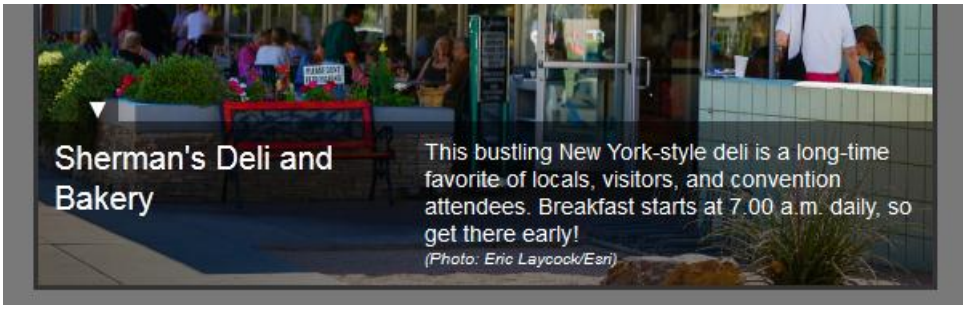
Note: If you will be using the first record as the intro or cover picture for your map tour, simply add the location for this feature anywhere in your study area. This point won't appear on the map. You can leave the THUMB_URL and ICON_COLOR field blank for the intro record.

Tip: It is useful to also include a numeric field with which the points are sequentially numbered. This isn't required. The template doesn't use this field to determine the order of the records, but by sorting the feature class's records on this field using the Sort geoprocessing tool in ArcGIS Desktop, you can easily change the ordering of the records to change the order of the tour points. For example you can add a Short Integer type field called NUMBER. To reorder the points in the map tour layer you can manually edit the values of this field to be in the sequence you want, and then use the Sort tool to sort the shapefile based on this field.

Formatting your caption text using HTML tags

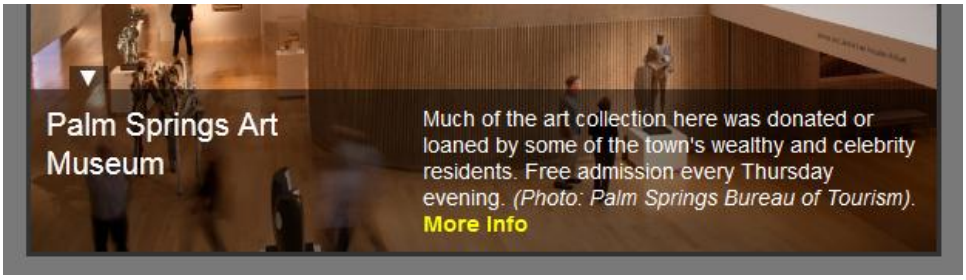
The caption text can include HTML tags to define formatting and links. For example, the caption text below is formatted so that the photo credit part of the caption appears on a separate line in a smaller italic font than the rest of the caption:

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
_deli.jpg,http://downloads.esri.com/blogs/places/palmsprings/tour/shermans_deli_thumb
nail.jpg
```

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.

A note about the field names given above

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.

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.

Load in your tour points

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.

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 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",
```

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.

For example if you don't want the first record in your map tour to be handled as an intro for the application, then change the `firstRecordAsIntro` property to be `false` instead of `true`. (Make sure you don't delete the comma following that property if you edit it).

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

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 level. 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,
```

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` and `sourceLayerTitle` parameters can also be included in 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
```

You can also include both of these optional parameters if you need to:

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

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

Tips

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

To help people find your map tour application, we recommend creating a web mapping application entry for your map tour in ArcGIS.com 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.com 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.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. Put 'map tour story map' as some of the tags for your entry so it shows up in our searches.

Related to this, 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.