8 LESSONS 94 MIN TOTAL

Multimedia Storytelling

This course will empower you to transcend words and take your audience to the heart of the story with dynamic, interactive and exciting visuals that you create.

Tools Used:
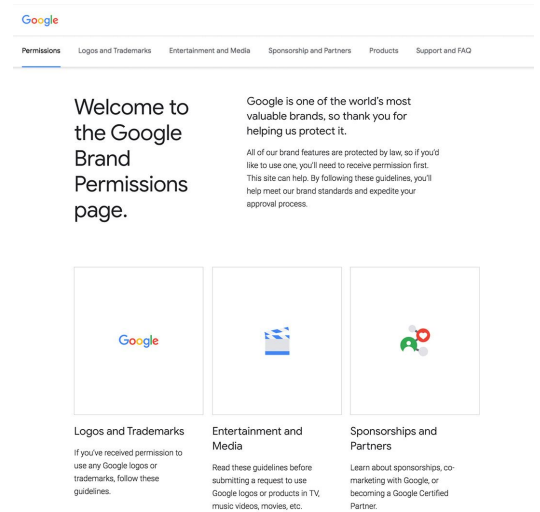Google Permissions, Google Earth, Google Crisis Map, YouTube, Google Fusion Tables

LESSON 01

Permissions: Source Google data

Learn proper usage and citations for Google products.

Lesson overview

How to use the Google brand in your content.

The Google Permissions website is your one-stop-shop to learn how to properly use and cite our products in your stories. It highlights common use cases, basic trademark guidelines and gives instructions on using our logos, images, maps and graphics across all media.

Google

Permissions   Logos and Trademarks   Entertainment and Media   Sponsorship and Partners   Products   Support and FAQ

Welcome to the Google Brand Permissions page.

Google is one of the world's most valuable brands, so thank you for helping us protect it.

All of our brand features are protected by law, so if you'd like to use one, you'll need to receive permission first. This site can help. By following these guidelines, you'll help meet our brand standards and expedite your approval process.

Logos and Trademarks

If you've received permission to use any Google logos or trademarks, follow these guidelines.

Entertainment and Media

Read these guidelines before submitting a request to use Google logos or products in TV, music videos, movies, etc.

Sponsorships and Partners

Learn about sponsorships, co-marketing with Google, or becoming a Google Certified Partner.

1	Citing maps sources.
2	Giving credit where it's due.

For more Multimedia Storytelling lessons, visit:

newsinitiative.withgoogle.com/training/course/multimedia-storytelling

Citing maps sources.

From satellite images to maps, journalists around the world use our tools to help tell their stories. And we're glad. We simply ask that you follow some usage rules to ensure they're used fairly and properly.

Let's say you're publishing a web infographic using an image from Google Earth. Go to google.com/permissions and click **Products**.

and Media   Sponsorship and Partners   Products   Support and FAQ

Google is one of the world's most valuable brands, so thank you for helping us protect it.

All of our brand features are protected by law, so if you'd like to use one, you'll need to receive permission first. This site can help. By following these guidelines, you'll help meet our brand standards and expedite your approval process.

Scroll down until you see **Google Maps/Earth** and click **guidelines for non-commercial use**. The General Guidelines section should answer most FAQs for Google map usage.

Legal

We ask that you put the following tagline beneath any image featuring a Google product screenshot or data

> Google and the Google logo are registered trademarks of Google LLC, used with permission.

Google Maps/Earth

If you're considering using Google Maps, Google Earth, or Street View for your project, follow these guidelines for non-commercial use. They spell out how you can and can't use our mapping tools in everything from marketing and promotional materials, films, television programs, books, academic journals, and much more.

Other products

Partner Marketing Hub

Includes Android, Google Assistant, Google Play, Google Pay, etc.

YouTube

Guidance and brand use request form for YouTube

Giving credit where it's due.

When you're ready to publish, make sure you properly cite your Google source. Many of our products, such as Google Maps and Google Earth, will automatically incorporate an attribution for Google and the data provider. We've also set up an attributions site to answer your more detailed questions.

Congratulations!

You completed "Permissions: Source Google data."

To continue building your digital journalism skills and work toward Google News Initiative certification, go to our Training Center website and take another lesson:

15 min estimated time

Google Historical Imagery: Google Earth Pro, Maps and Timelapse

Look back in time almost anywhere in the world.

For more Multimedia Storytelling lessons, visit:

newsinitiative.withgoogle.com/training/course/multimedia-storytelling

LESSON 02

Google Historical Imagery: Google Earth Pro, Maps and Timelapse

Look back in time almost anywhere in the world.

Lesson overview

History tells a story.

Sometimes the best way to explain the present is to explore the past. Google Earth Pro, Google Maps and Google Landsat Timelapse all allow you to access years of satellite, aerial and Street View imagery, which are an effective tool for demonstrating the development of cities, damage from natural disasters and changes in landscape over time.

1984   2012

Lake Urmia, Iran

1	Exploring history on Google Earth Pro.
2	Exporting still images and video.
3	View streets of the past on Google Maps.
4	Moving through time.
5	Google Earth Engine: Landsat Timelapse.
6	Sharing a timelapse.
7	Creating a custom timelapse.

For more Multimedia Storytelling lessons, visit:

newsinitiative.withgoogle.com/training/course/multimedia-storytelling

Exploring history on Google Earth Pro.

Google Earth Pro's Historical Imagery feature is an easy way to go back in time.
Let's say you want to show the history of renovations to Rio de Janeiro's
Maracanã Stadium:

Type the stadium's name in the search window and fly to
the location.
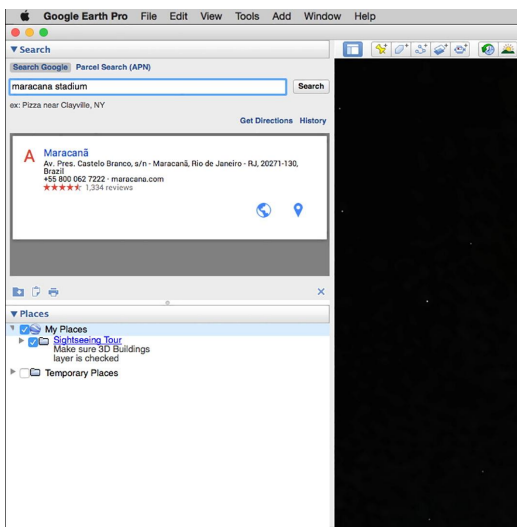
You'll first see the freshest or highest quality imagery
available. Now click the clock icon in the top menu and a
time slider will appear, displaying a notch for every piece
of imagery available for this view.
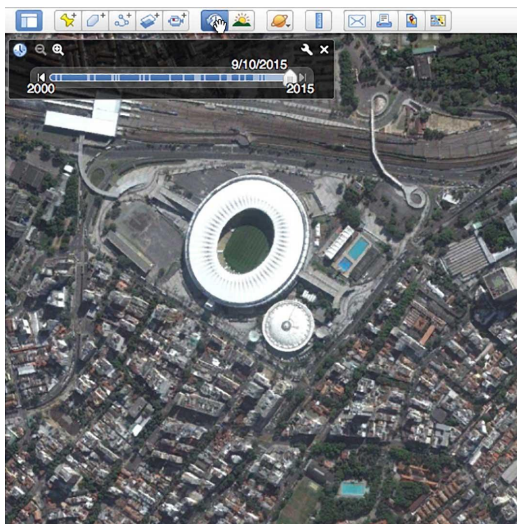
Move the slider all the way to the right to see if any fresher imagery is available, and move it to the left to see imagery from the past. The day, month and year of each piece of imagery is displayed within the slider. Coverage and availability of images will vary depending on the location.
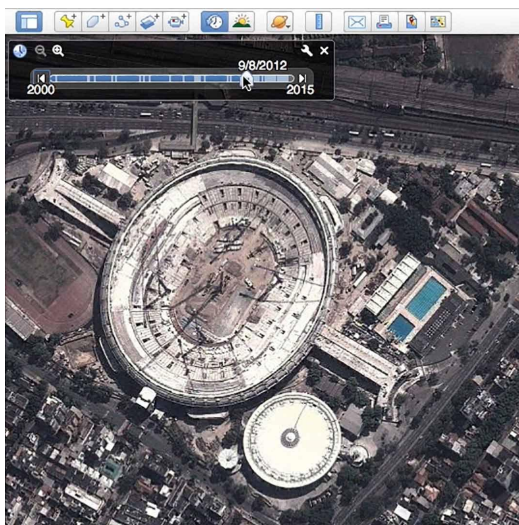
Exporting still images and video.

Google Earth Pro also allows you to create and export HD tour videos for use in your stories. See our tutorials for Google Earth Pro and Google Earth Pro: Export High Resolution Images to learn more.

In Google Earth Pro, you can save and export high-resolution JPGs of these historical images by going to **File**, **Save**, then **Save Image**.
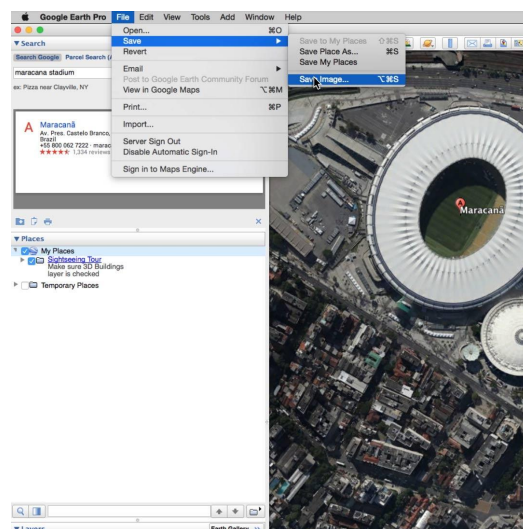
Buttons will appear above the map that allow you to choose the resolution of your images and keep or remove various elements on the map.
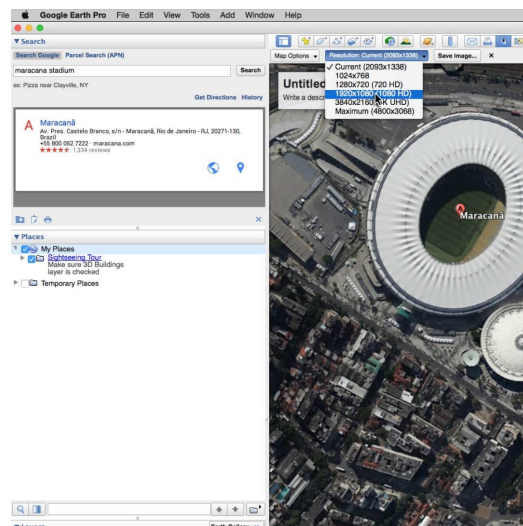
Then click **Save image**.
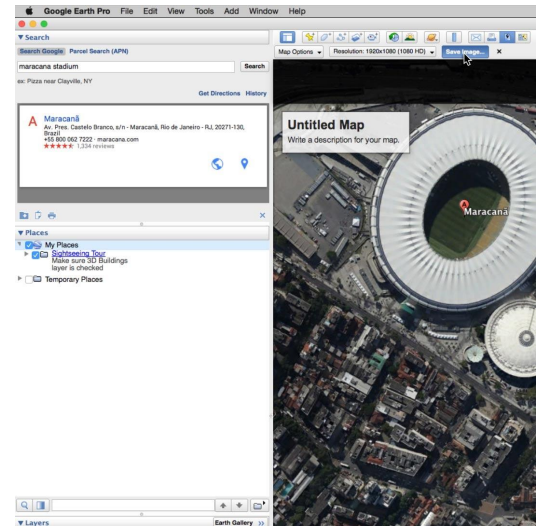
Finally, name your file and click **Save**.
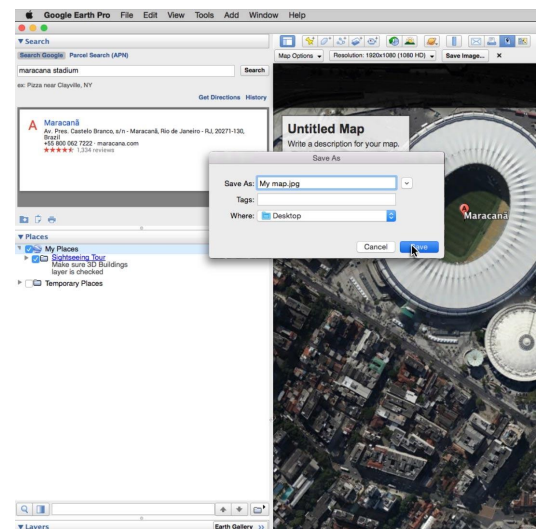
View streets of the past on Google Maps.

Similar to historical satellite imagery in Google Earth, Google Maps for desktop allows you to access historical Street View panoramas gathered from Street View collections dating back to 2007.

Let's say you're doing a story on the reconstruction of Onagawa, Japan after the 2011 earthquake and tsunami.

STEP 1 OF 2

First, type Onagawa in the search bar to fly there. Then, to enter Street View In Google Maps, grab the Pegman and drag him to one of the blue lines on the map (blue lines indicate where Street View is available on the map).
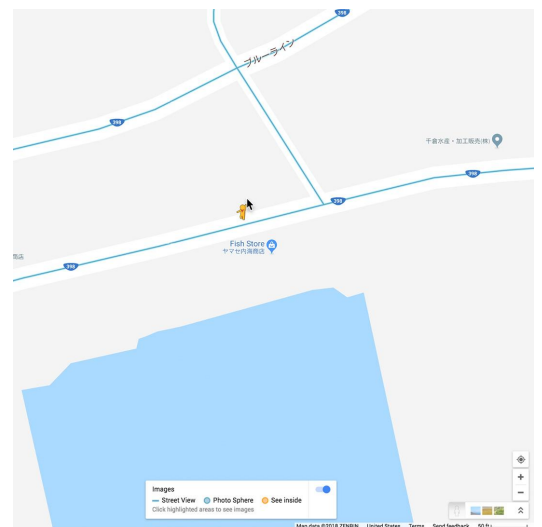
STEP 2 OF 2

When you first enter this mode, you'll see the freshest, highest quality panorama available for that spot.

Moving through time.

Now look for the clock icon in the upper left of the map, which indicates that historical panoramas are available (since coverage varies, you will not always see the clock). Use the slider to toggle on different panoramas, marked with the month and year each was collected.

To see a larger view of the selected panorama, click the magnifying glass icon.

If you would like to use available imagery for your story, for example, in a photo slideshow, video, or GIF, use your computer's screen capture feature to save the needed image. Remember to credit the imagery to Google Maps Street View (visit google.com/permissions or see our Permissions tutorial for details).
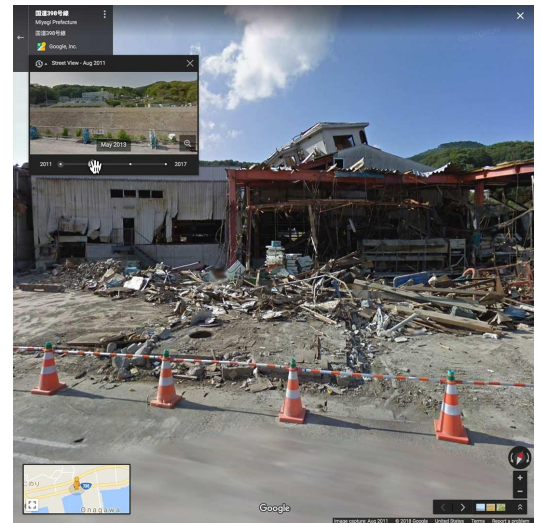
Google Earth Engine: Landsat Timelapse.

A Timelapse map can be a powerful accompaniment to coverage of local, environmental or science-related issues. Working closely with the USGS and NASA, Google released more than a quarter-century of images of Earth taken from space, compiled into an interactive time-lapse map that allows viewers to watch change across the entire planet's surface beginning as early as 1984.

Visit earthengine.google.com/timelapse
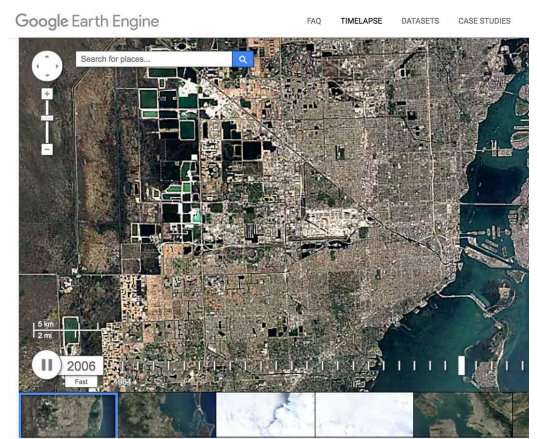
Timelapse

Timelapse is a global, zoomable video that lets you see how the Earth has changed over the past 32 years. It is made from 33 cloud-free annual mosaic

Click through the thumbnails of phenomenon such as the sprouting of Dubai's artificial Palm Islands, the retreat of Alaska's Columbia Glacier, the deforestation of the Brazilian Amazon and urban growth in Las Vegas.
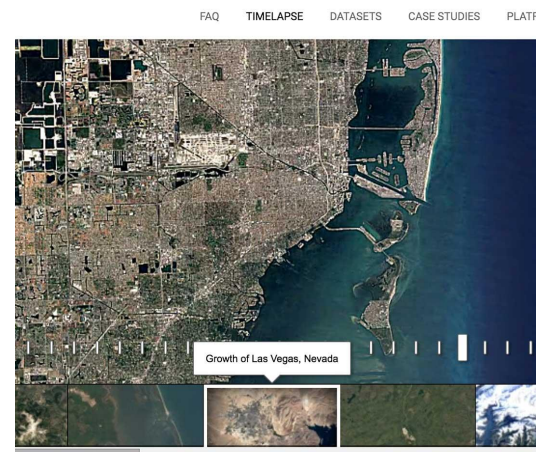
When viewing these areas, remember that Timelapse is an interactive map, so you can pan and zoom just as you would on Google Maps.

You can also use the map's search bar to view a location other than those featured on the homepage.
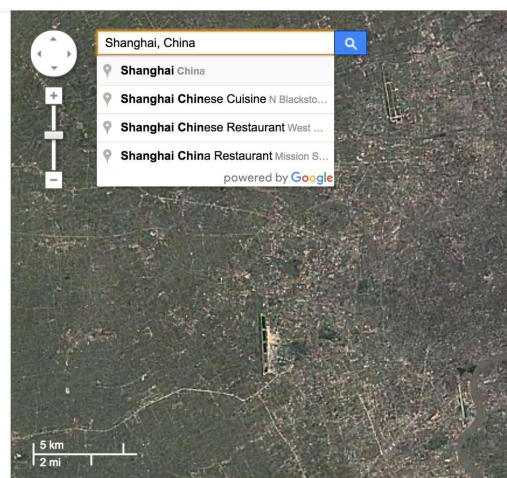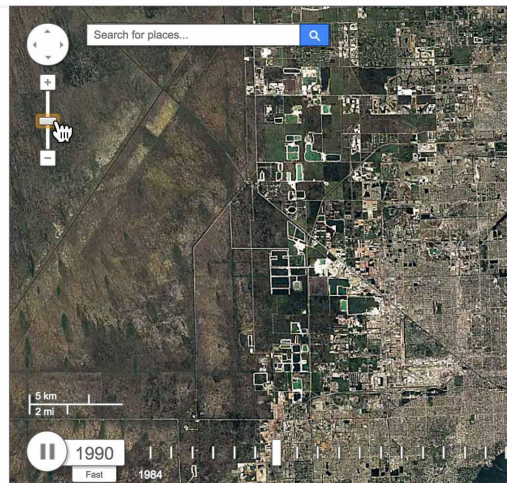
Sharing a timelapse.

The **Share** button below the map generates a link you can use to share the map and embed it on your website.

The link and embed will take viewers to the same area of the map you were viewing when you clicked **Share**.
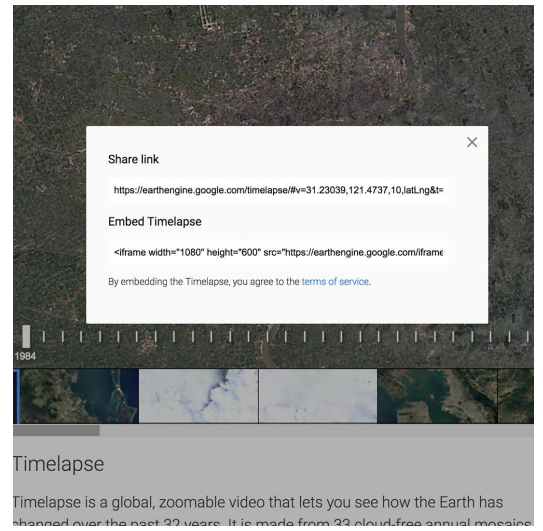
Creating a custom timelapse.

Instead of showing one static area through the years, you can customize your map to travel in various directions over time. Use this timelapse editor, developed by Carnegie Mellon's CREATE Lab, which allows you to fly to the locations you want to highlight and add keyframes at each stop. Let's say you're doing a story on the effects of irrigation in Saudi Arabia, and you'd like to show the change and expansion of the landscape as more water is introduced.

STEP 1 OF 3

Start your tour above the irrigation fields, and add a keyframe. Now let's go in closer and add another keyframe, and move north so the camera reveals additional irrigation fields and add one more keyframe.
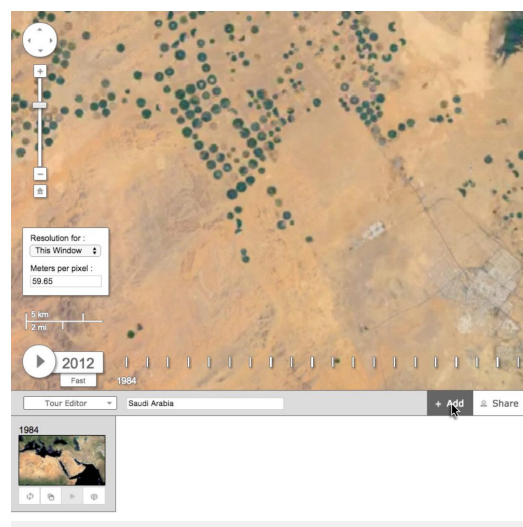
STEP 2 OF 3

Click **Play Tour** to see your finished map. You can set loop and duration information for each key frame in the transition panels.
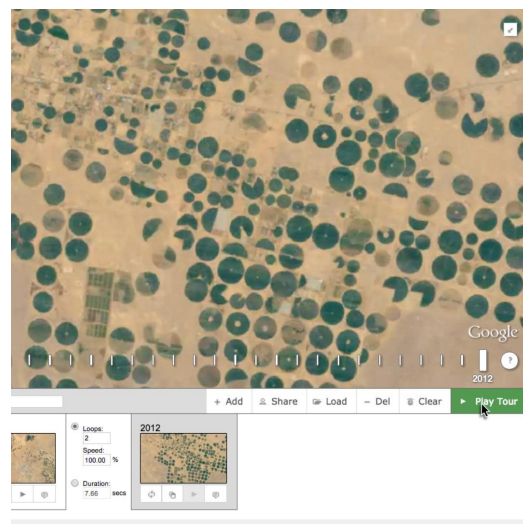
When you're ready to share or embed this tour on your website, just click the **Share** button. The link above includes more options for customization.
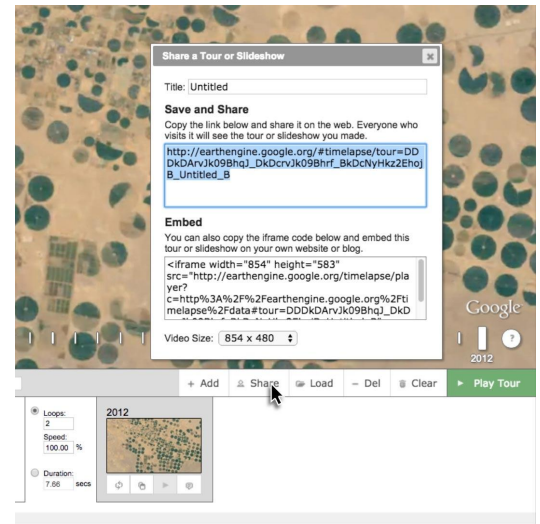
Congratulations!

You completed "Google Historical Imagery: Google Earth Pro, Maps and Timelapse."

To continue building your digital journalism skills and work toward Google News Initiative certification, go to our Training Center website and take another lesson:
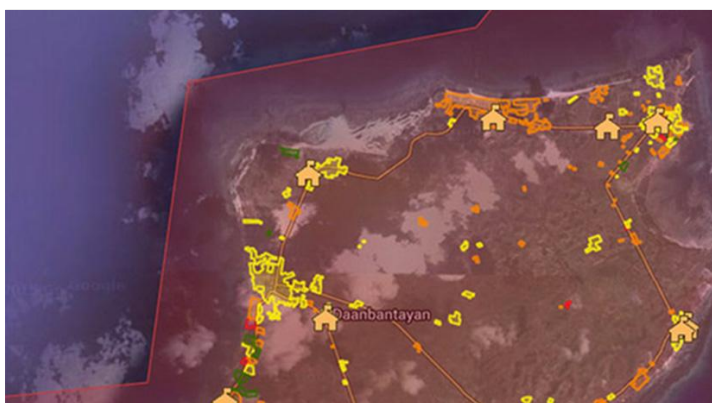
10 min estimated time

Google Crisis Map: Diagramming a disaster and its response

See the latest crisis-related data and customize it for your story.

For more Multimedia Storytelling lessons, visit:

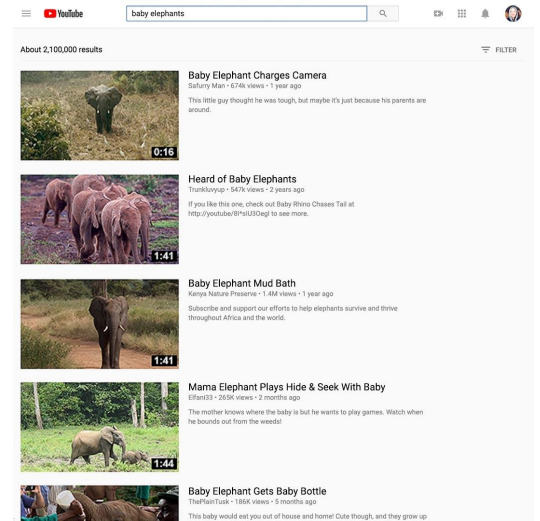newsinitiative.withgoogle.com/training/course/multimedia-storytelling

LESSON 03

Google Crisis Map: Diagramming a disaster and its response

See the latest crisis-related data and customize it for your story.

Lesson overview

About the Crisis Map.

When a disaster strikes, Google Crisis Response helps ensure that accurate information is available to those affected.

The Google Crisis Response team works directly with authoritative emergency organizations such as the Red Cross, NOAA and many others to create and update the Google Crisis Map, which features helpful information regarding disasters all over the world.

The Crisis Map can help journalists visualize and share crisis-related data, and includes relevant information such as shelter locations, weather, evacuation zones, post-event satellite imagery and more.

| 1	Explore archived Crisis Maps.
2	Customizing the Crisis Map.
3	Customization for advanced users.
4	Sharing the Crisis Map.
5	Receive alerts for new Crisis Maps.

For more Multimedia Storytelling lessons, visit:

newsinitiative.withgoogle.com/training/course/multimedia-storytelling

Explore archived Crisis Maps.

To get to know the tool, go to google.org/crisismap. Then start by exploring a growing collection of archived Crisis Maps. Just click the dropdown arrow next to the title of the current map.
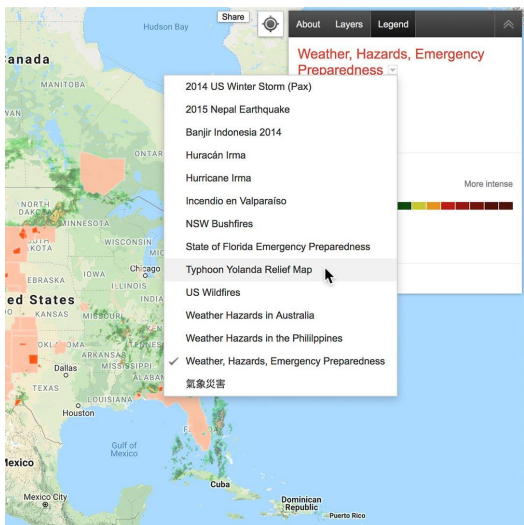
Customizing the Crisis Map.

By default the Crisis Map displays multiple layers of information. But it's easy to customize the map and highlight only specific information.

Let's say you were writing about Typhoon Yolanda, which hit Southeast Asia in 2013, and wanted to feature a map of just Evacuation Centers in your story. You would just open the **Layers** panel and uncheck boxes to remove information you don't want to appear. Whatever layers you check will be displayed on the map when you copy and share its URL or embed code, which will be explained in an upcoming screen.
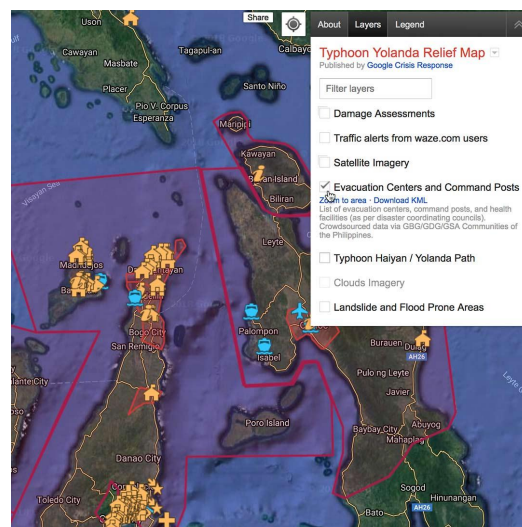
You can also choose a specific area of the map to display, and select satellite imagery based on the date it was collected. On the Layers tab click **Satellite Imagery**, then the date.
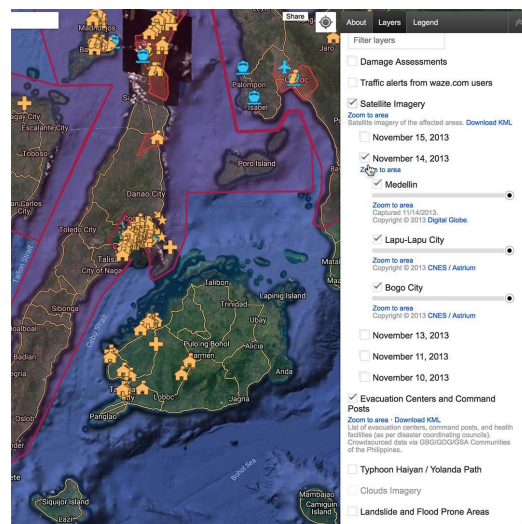
To better feature this imagery, click **Zoom to area** and position your map. Use the Zoom tool to get closer to the details in the satellite imagery.

The final layer and position you choose will be saved and appear in the map when you share it.
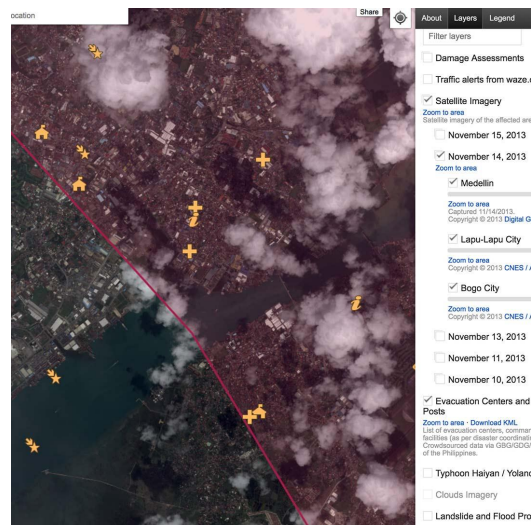
Customization for advanced users.

Whenever possible, Crisis Response provides a download link with individual information layers on the Crisis Map so that it can be downloaded as KML (Keyhole Markup Language) data.

A reporter can, for example, use that KML data in Google Earth Pro to help create a customized video tour of the crisis area. See our Google Earth lesson for information about creating, customizing and exporting video tours for news reports.
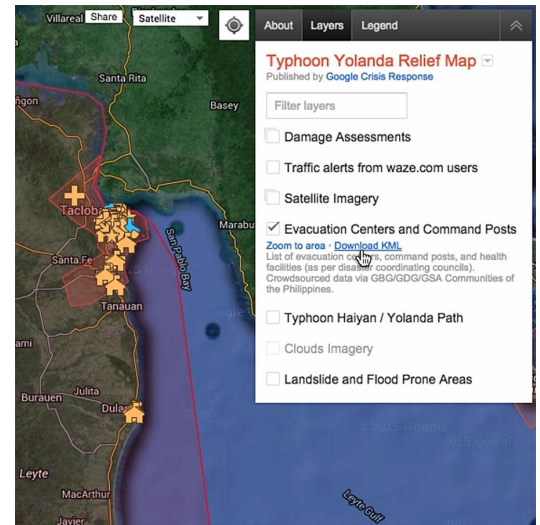
Sharing the Crisis Map.

The Google Crisis Response team makes it easy for trusted news sources to share and embed Crisis Maps as part of their coverage.

Once you've customized the Crisis Map with the information and area you want to feature, click **Share** at the top of the map.
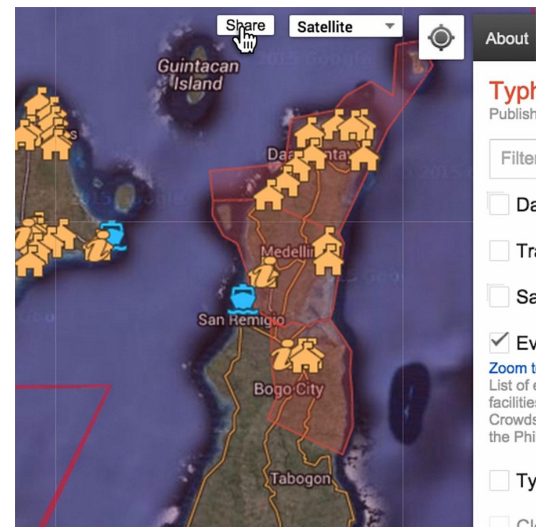
In the pop-up window you can share the map on social media or copy the map's URL.

You can also embed the map on your website using the iframe provided. In that code, you can customize the height and width of the map embed.
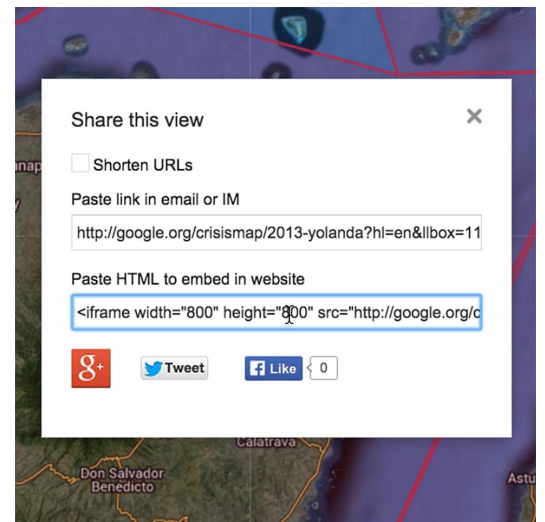
Receive alerts for new Crisis Maps.

To find out when the Google Response Team launches a new Crisis Map, sign up for our Google Geo Media Updates group.

To sign up, go to groups.google.com/forum/#!forum/geomedia-updates and click **Apply to join group**.
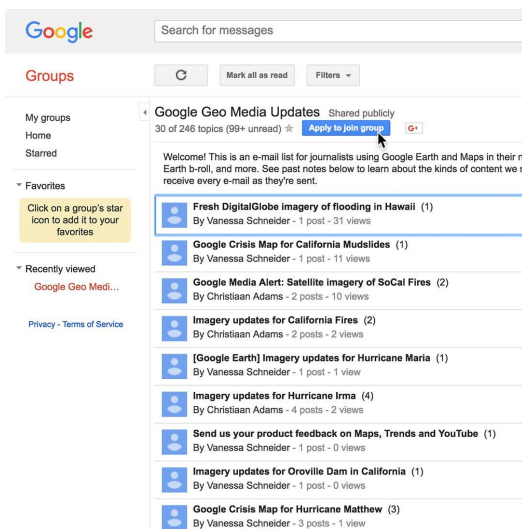
Edit your display information, email preferences, and provide your company info. Then click **Apply to join group**.
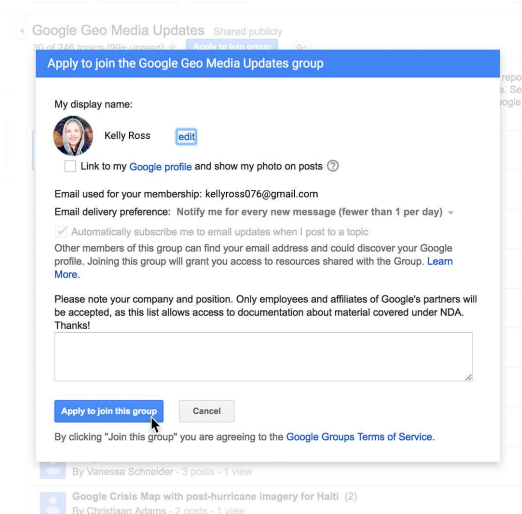
Congratulations!

You completed "Google Crisis Map: Diagramming a disaster and its response."

To continue building your digital journalism skills and work toward Google News Initiative certification, go to our Training Center website and take another lesson:

5 min estimated time

YouTube: A storytelling tool

Find out how to cultivate and maintain a YouTube audience.

For more Multimedia Storytelling lessons, visit:

newsinitiative.withgoogle.com/training/course/multimedia-storytelling

LESSON 04

YouTube:
A storytelling tool

Find out how to cultivate and maintain a YouTube audience.

Lesson overview

Using YouTube to source content.

YouTube can be a powerful source for discovering content that's relevant to stories you're reporting. Let's say you're writing about endangered species breeding programs and you're looking for footage of a baby elephant. After searching on YouTube, you'll see a results page with relevant videos, playlists and channels.

1	Filter and sort to find your ideal footage.
2	Crediting the content owner.

For more Multimedia Storytelling lessons, visit:

newsinitiative.withgoogle.com/training/course/multimedia-storytelling

Filter and sort to find your ideal footage.

By clicking **Filter** you can use advanced filtering and sorting techniques to quickly find what you're looking for.
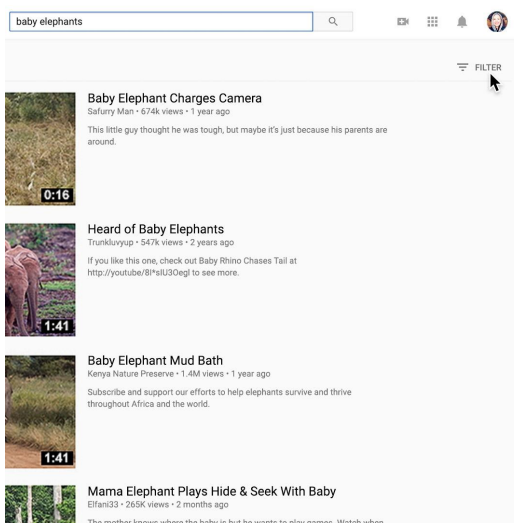
You can further refine your search by filtering for upload date, video length, HD content and more. Finally, you can sort by relevance, view count, rating and recency.
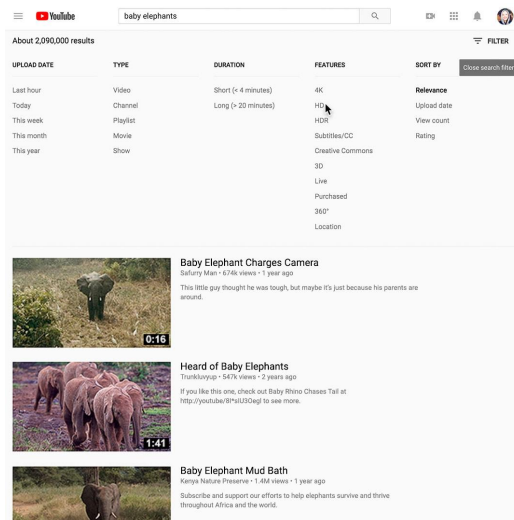
Crediting the content owner.

Now that you've found the footage you want, find out if it's available for use. Though YouTube has a license to distribute the video, it's the YouTube user who owns the content. We encourage you to reach out to users directly and to provide attribution by displaying the username or the real name of the individual, if you've obtained it.

To contact a YouTube user, click on their username to go to their channel.
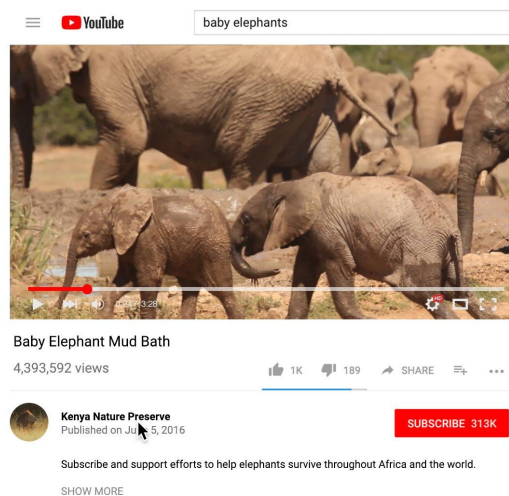
Then click **About**. Here you can see what personal information he or she has shared (name, website, location, etc.).
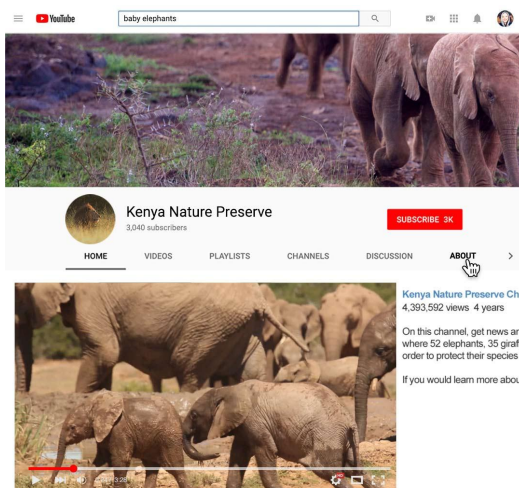
You can also find out if they've shared their contact email and use that to reach out.

Once you have permission to use their footage, be sure to credit the source onscreen, in your video's description and by linking to their channel.
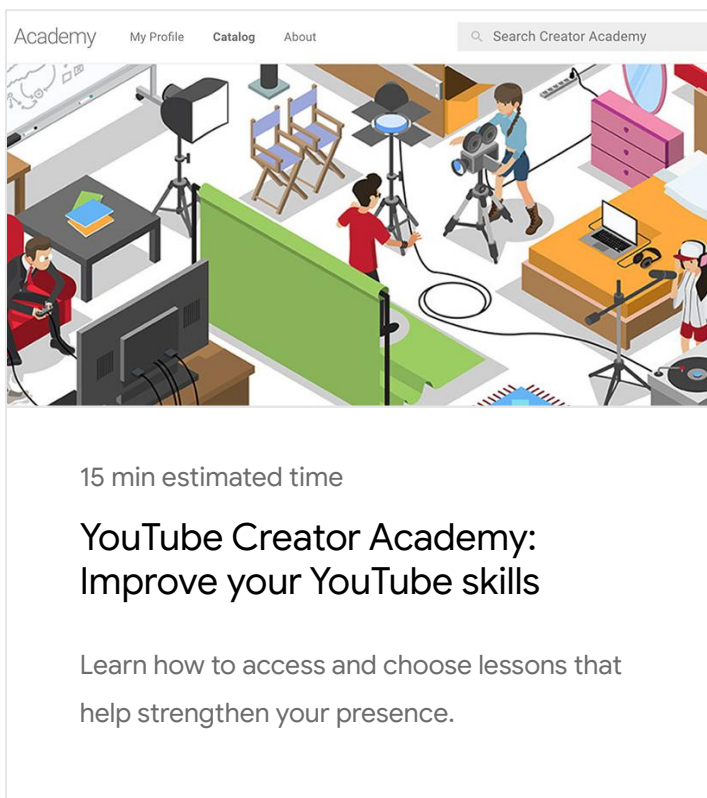
If you're broadcasting your YouTube video on television, please include on-screen and verbal attribution. Remember, since the YouTuber owns the video, attribution should be theirs, not "YouTube."

Congratulations!

You completed "YouTube: A storytelling tool."

To continue building your digital journalism skills and work toward Google News Initiative certification, go to our Training Center website and take another lesson:

15 min estimated time

YouTube Creator Academy: Improve your YouTube skills

Learn how to access and choose lessons that help strengthen your presence.

For more Multimedia Storytelling lessons, visit:

newsinitiative.withgoogle.com/training/course/multimedia-storytelling

LESSON 05

YouTube Creator Academy: Improve your YouTube skills

Learn how to access and choose lessons that help strengthen your presence.

Lesson overview

YouTube Creator Academy.

Whether you're new to YouTube or already have a news channel you want to take to the next level, there's always something to learn in the YouTube Creator Academy.
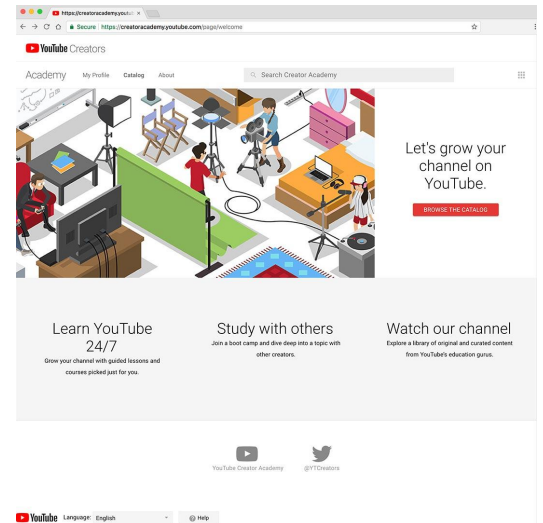
1	Searching and browsing by topic.
2	Begin with the basics.
3	Intermediate courses.
4	Advanced courses.
5	Review and enhance your skills.

For more Multimedia Storytelling lessons, visit:

newsinitiative.withgoogle.com/training/course/multimedia-storytelling

Searching and browsing by topic.

Each Creator Academy course consists of multiple lessons, practice exercises and quizzes centered around a useful topic. The curriculum features top YouTube Creators sharing tips and strategies that you can try yourself. There is a lot of content here, so we'll start by introducing you to popular courses for news organizations.

For a full list of available courses click **Catalog**.
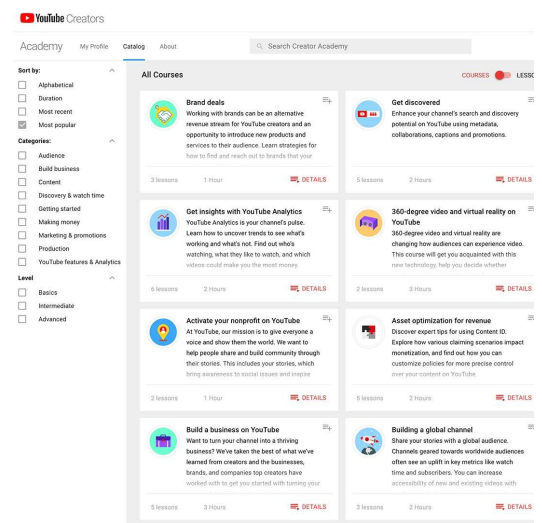
To see all the lessons listed individually, switch the toggle in the upper righthand corner to "lesson" view.
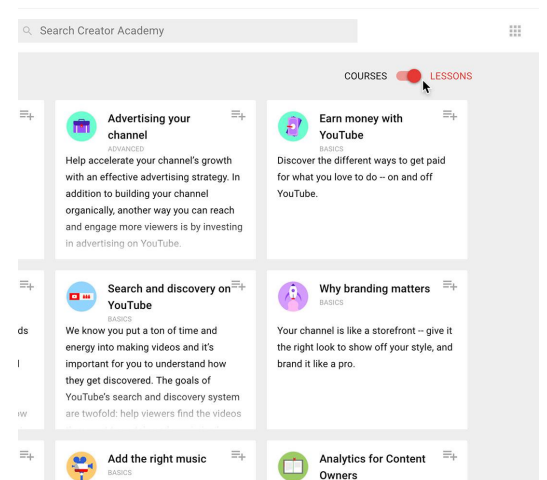
Begin with the basics.

If you're new to YouTube, we suggest that you use the search bar to find and take the following courses.

[The quickstart guide to YouTube](#) - The fundamentals of YouTube and branding your channel.
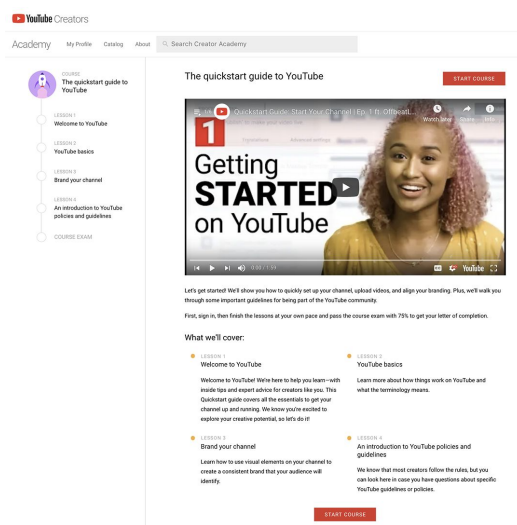
[Create great content](#) - Develop your creative strategy and production skills to attract loyal fans.
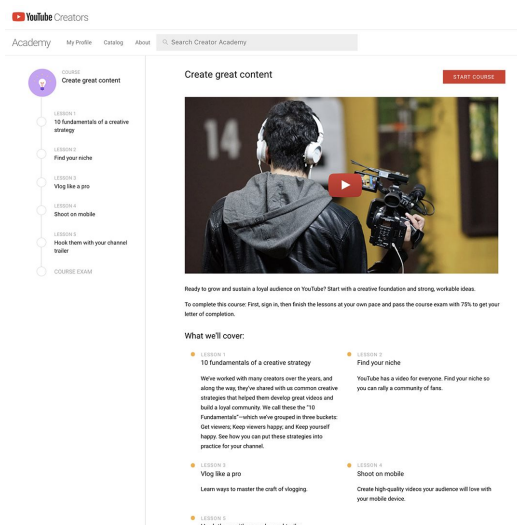
News channels - Lesson 4 in the course **Target your audience** features clips from some of YouTube's most successful news channels.

Intermediate courses.

Once you know the fundamentals, these courses can help you expand your audience.

[Get discovered](#) - Package your videos to give them the best chance to get watched.

[Grow your community](#) - Build and engage your audience for long-term success.

Advanced courses.

These courses help you monetize your content and gauge its popularity:

Make money with YouTube - Make money as your stories gain a following.

Get insights with YouTube Analytics - Measure your success and find out how you can improve.

Review and enhance your skills.

At the end of many lessons is a quick quiz to help review what you've learned. Spend some time in the Creator Academy, and soon you'll become a master of YouTube.

Visit youtube.com/creatoracademy
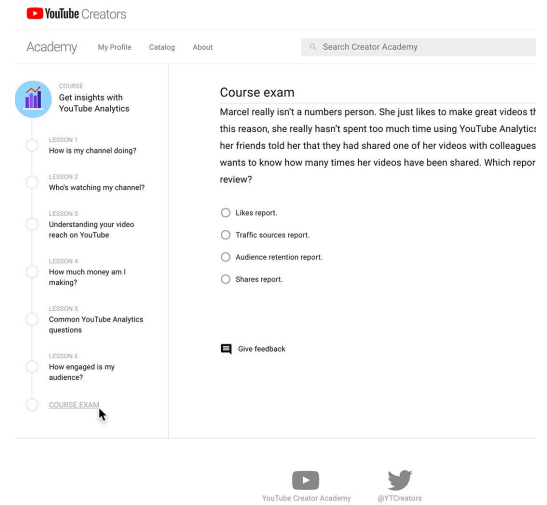
Congratulations!

You completed "YouTube Creator Academy: Improve your YouTube skills."

To continue building your digital journalism skills and work toward Google News Initiative certification, go to our Training Center website and take another lesson.

15 min estimated time

Google Earth Pro: Take your broadcast audience there

Add global perspective with satellite imagery and video tours.

For more Multimedia Storytelling lessons, visit:

newsinitiative.withgoogle.com/training/course/multimedia-storytelling

LESSON 06

Google Earth Pro: Take your broadcast audience there

Add global perspective with satellite imagery and video tours.

Lesson overview

Take your viewers on a journey.

Take your broadcast audience anywhere in the world with Google Earth Pro's expansive collection of satellite, terrain and 3D imagery. Using Google Earth Pro's movie making features for PC and Mac, you can even fly to key story locations and export that animation as an HD video for use on-air.

Take a look at our FAQs video on YouTube Watch now
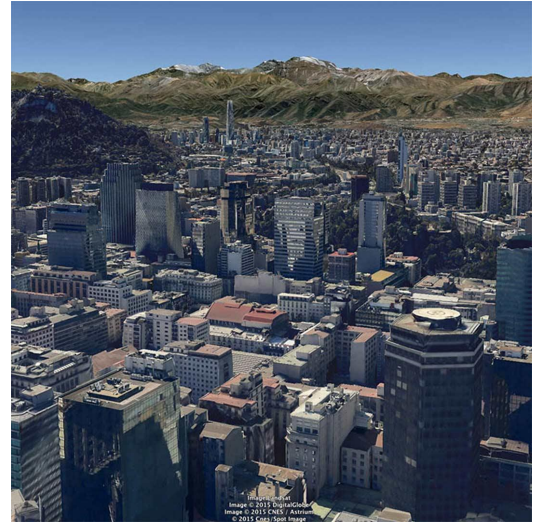
1	Getting started.
2	Creating your tour.
3	Adding Placemarks.
4	Modifying your tour.
5	Previewing and saving your tour.
6	Exporting your tour.

For more Multimedia Storytelling lessons, visit:

newsinitiative.withgoogle.com/training/course/multimedia-storytelling

Getting started.

To take advantage of everything Google Earth Pro has to offer for broadcasters, start by visiting www.google.com/earth/ to download the app. There you can also explore features and see great examples of the tool in use.
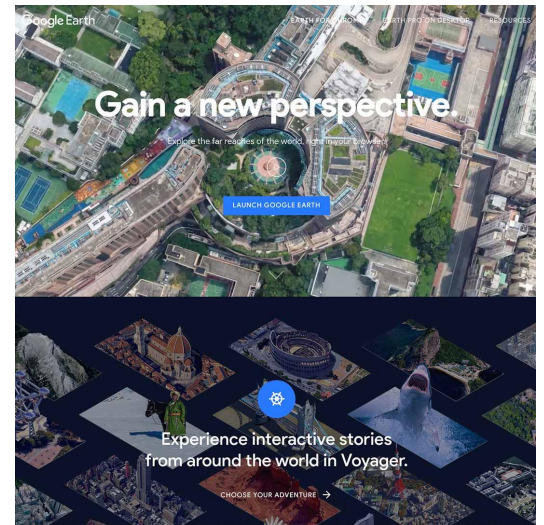
Creating your tour.

The first thing to do is to create a tour. Let's say that you're reporting on Venice's battle with rising water levels and you want to lead in to your story with the tour.

Start by creating a new folder in the Places panel. This is where you'll keep the placemarks that you select for your tour. First, select **My places**.
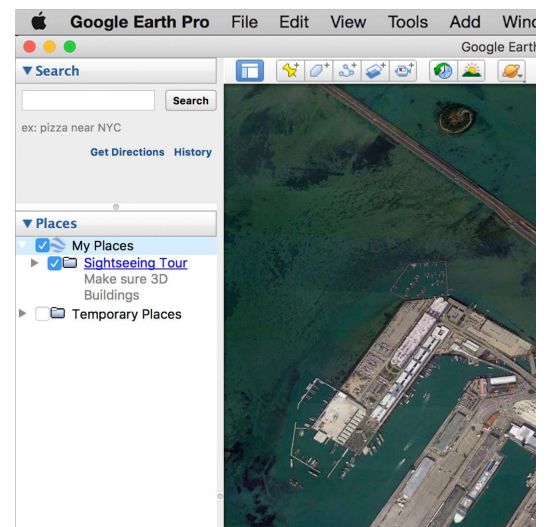
Then click **Add** in the top menu and choose **Folder**.
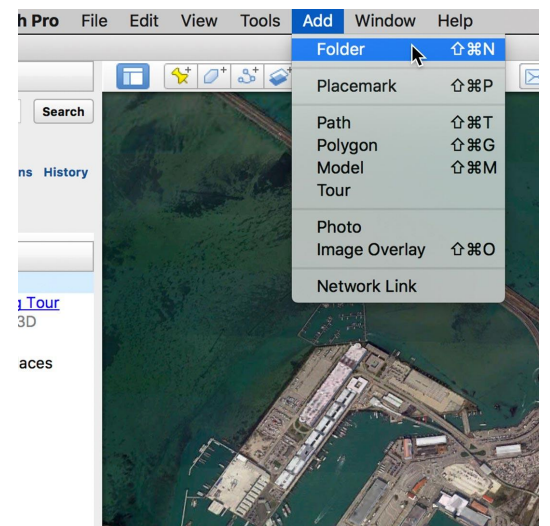
Now choose where you'd like your movie to start and position the globe for the first shot of your tour. Maybe you'd like to start the journey from your current location. Let's say that it's London. Use the search bar to type in your location.
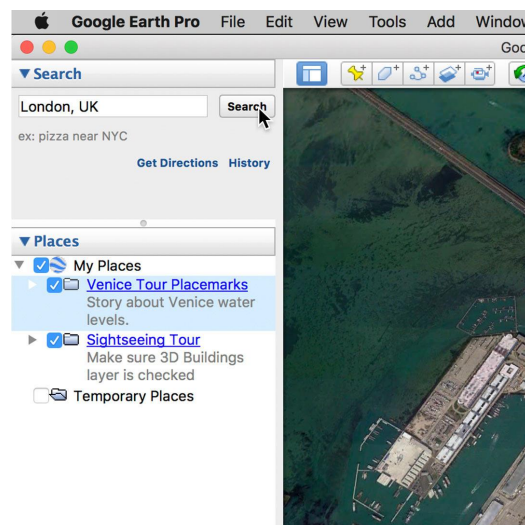
Google Earth Pro will take you to that specific point.
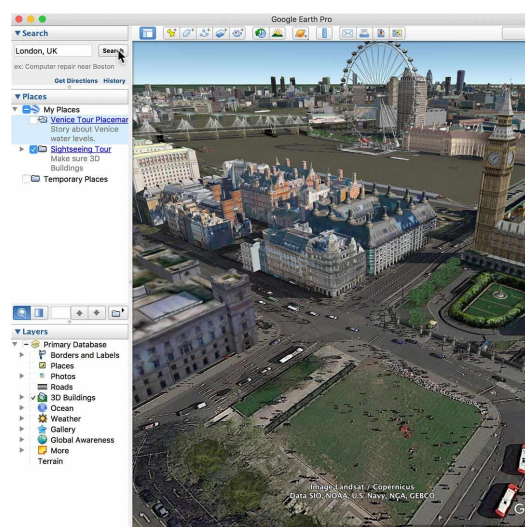
Adding Placemarks.

You can make additional adjustments to the camera position by clicking and dragging on the map or zooming in.

Once you have the camera where you want it click the **Placemark** button in the menu. Think of each placemark as a location on your tour.
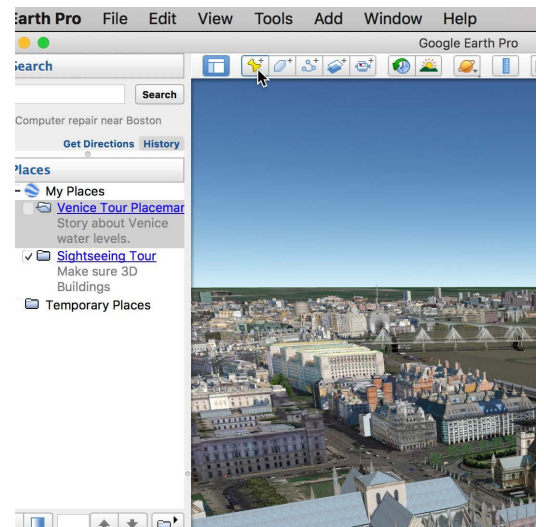
Then give your placemark a name. We'll call this A.
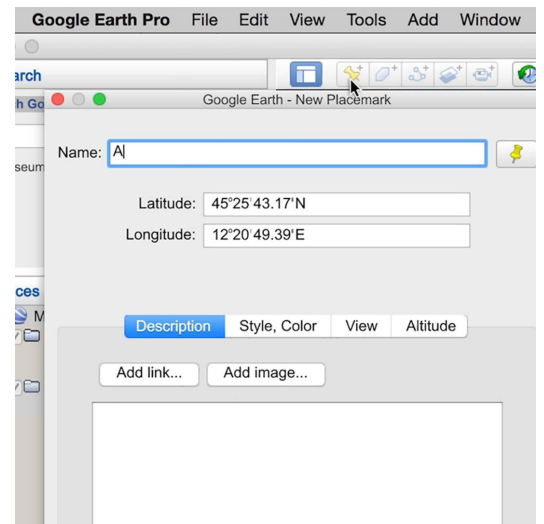
To add the next destination in your tour use the search bar to enter in a location. Let's zoom in to just above Venice, Italy.
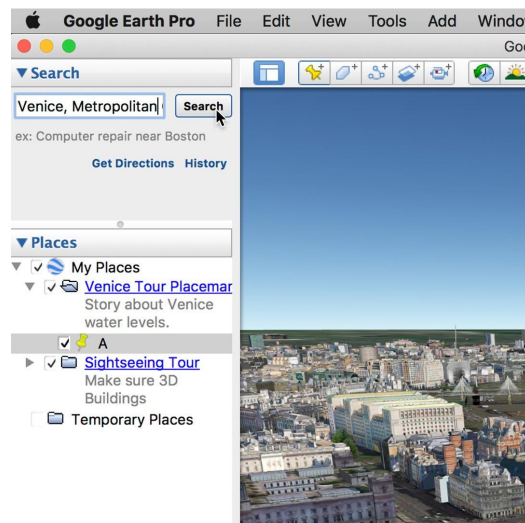
Click the **Placemark** button and call it B. If you want to add more locations to your tour, just repeat the steps and add additional placemarks.
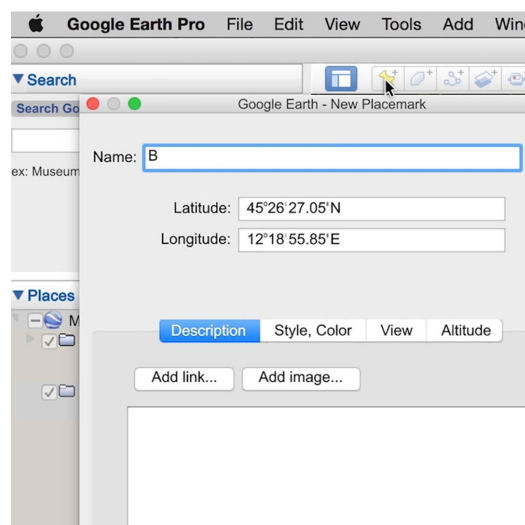
Modifying your tour.

You can further tweak your tour to get even more precise locations, find angles that help tell your story better or adjust the time it takes to get from point A to point B.

Let's position our camera at St. Mark's Square, one of the lowest areas of Venice, which can flood up to 100 times each year.
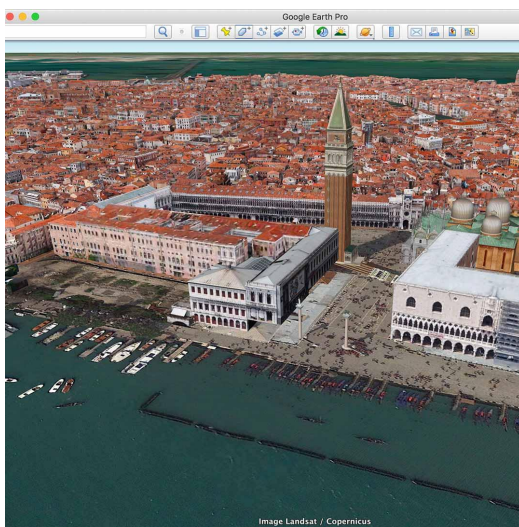
Click and drag the map or zoom in until you find your ideal view. Then right click the placemark in the Places panel and select **Snapshot View**. That will associate the new camera information with that placemark.
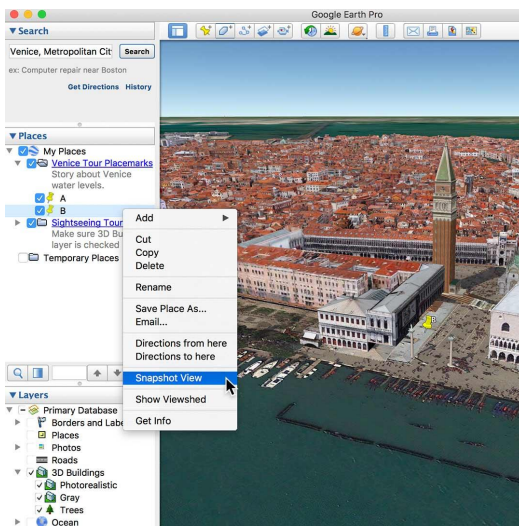
Also note that you can change the speed of the camera between points A and B, as well as other settings, in Google Earth Pro's **Preferences** menu.
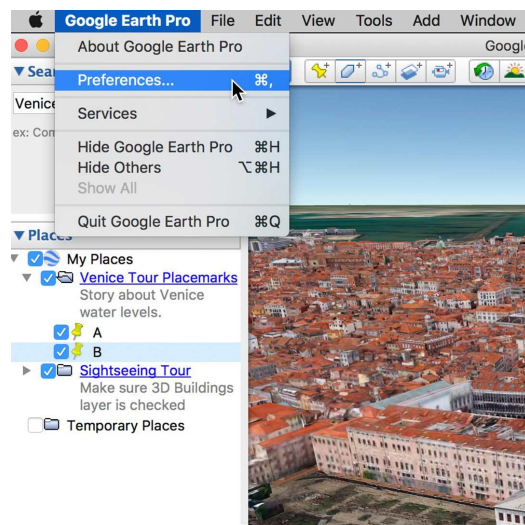
Click **Touring** and adjust the sliders.
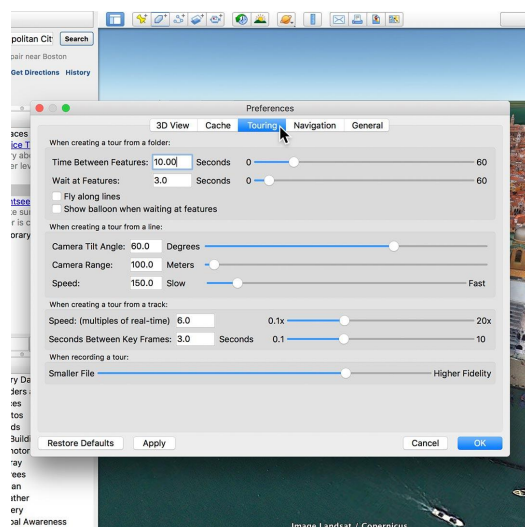
Previewing and saving your tour.

When you're happy with the tour you just created, it's time to export.

First, make sure to uncheck the boxes for each of the placemarks in your tour. This will hide those yellow pins on the map.
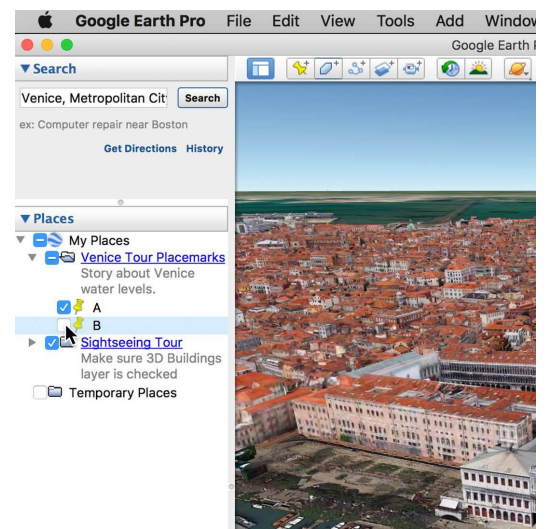
Make sure your map is at the starting point by double clicking Placemark A.
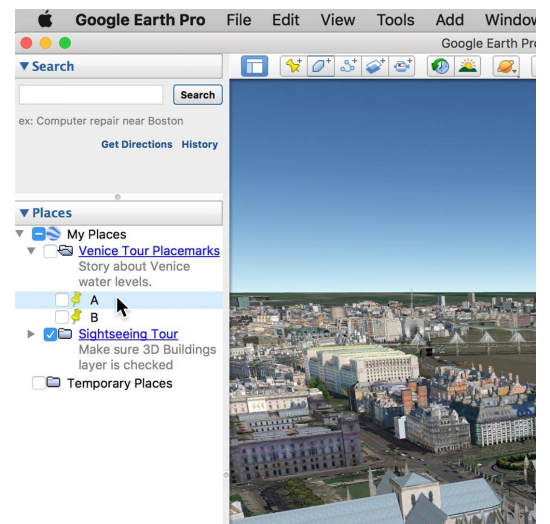
In the **Places** panel, click the title of your tour. You'll see a little folder icon appear just above the **Layers** menu. Click that to play your tour.
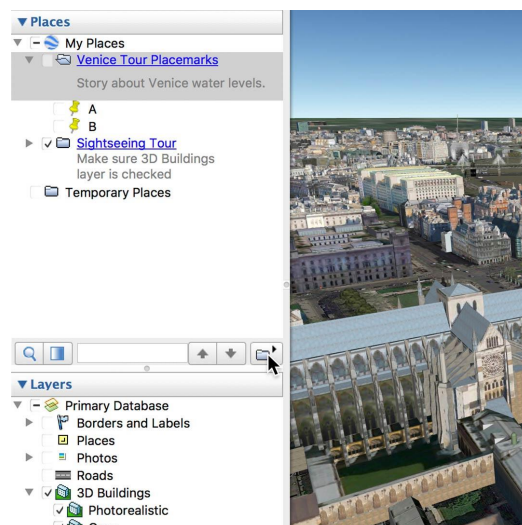
Under **Tour Controls**, click **Save**.

Now give your tour a name and click **OK**.
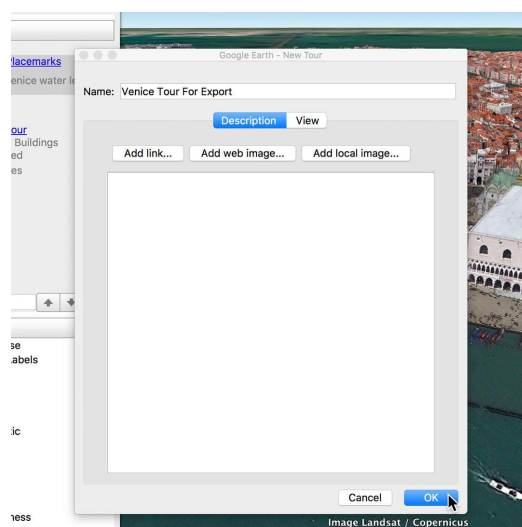
Exporting your tour.

Once again, double click on your starting location in the **Places** menu so the movie will begin in the right place.
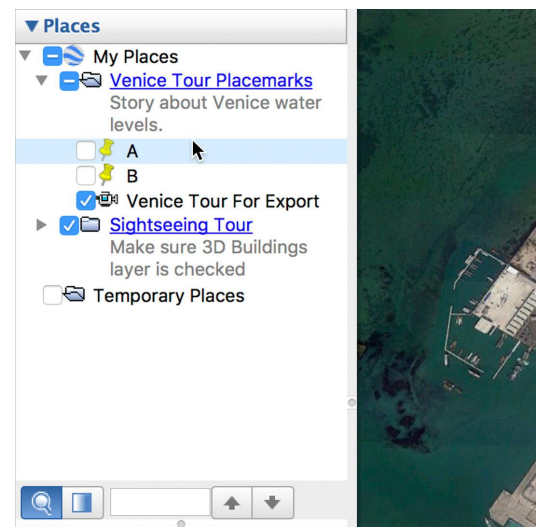
Then, close the tour controls on the bottom left of the screen if they haven't already.
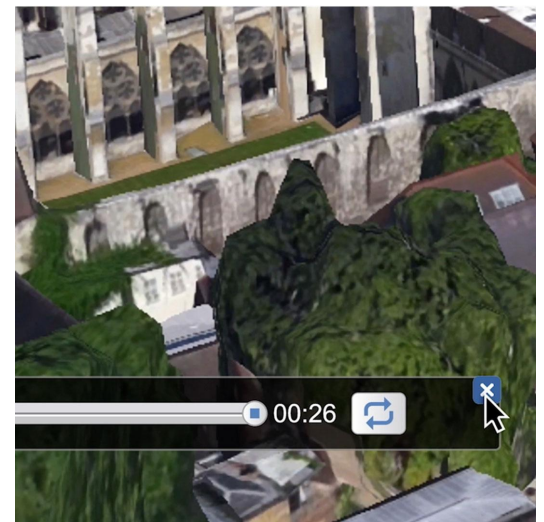
Now go up to **Tools** in the menu and select **Movie Maker**.
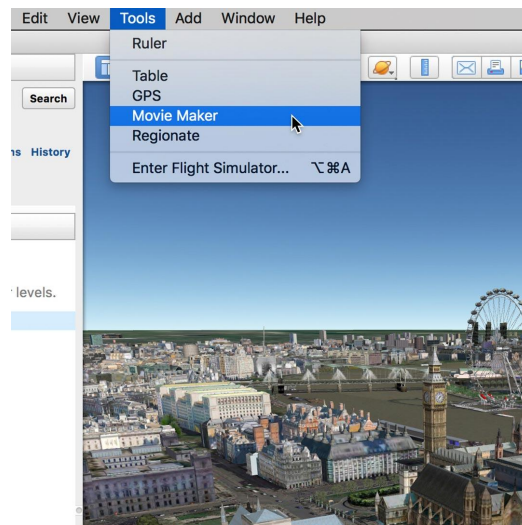
Make sure the Venice tour is selected in the **Record From** dropdown. Now you can set the movie's resolution and other options, and choose where you want to save your movie. Then click **Create Movie**.
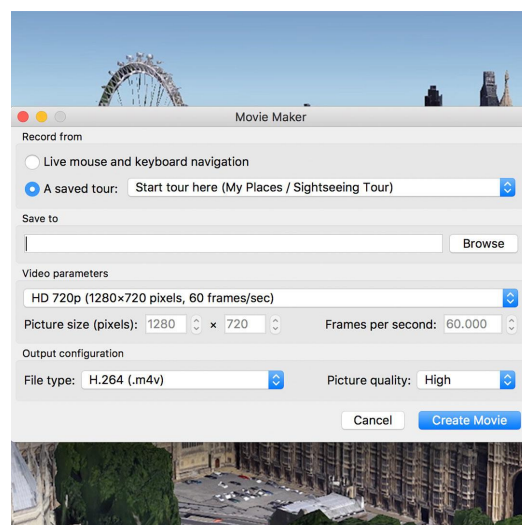
As the movie renders, be sure not to open other programs on top of Google Earth. This should keep the rendering process clean and quick. Render times may vary based on the length of your movie and export settings.
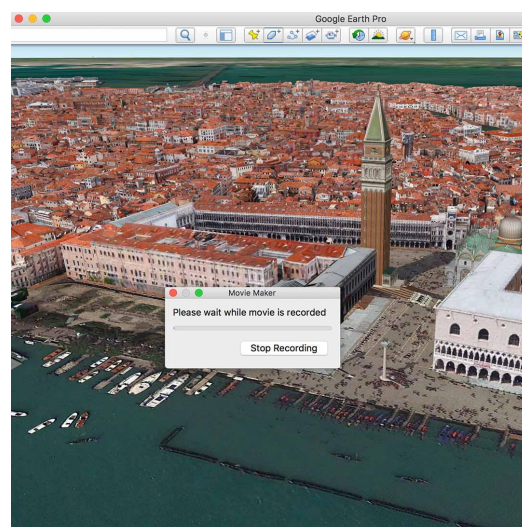
Congratulations!

You completed "Google Earth Pro:
Take your broadcast audience there."

To continue building your digital journalism skills and work toward Google News Initiative certification, go to our Training Center website and take another lesson:

20 min estimated time

Google Earth Pro: Exporting optimal videos and stills

Learn useful tips for creating quality images.

For more Multimedia Storytelling lessons, visit:

newsinitiative.withgoogle.com/training/course/multimedia-storytelling

LESSON 07

Google Earth Pro: Exporting optimal videos and stills

Learn useful tips for creating quality images.

Lesson overview

Faster renders, quality images.

Our Google Earth Pro tutorial describes how to create and export video tours, which can help explain the "where" of your news stories. This tutorial offers tips on how to render those tours faster and better, so you can save time and avoid oversized files and choppy movements. Here you'll also learn how to export high resolution still images from Google Earth Pro.

1	Movie Maker: Build your tours in the places folder.
2	Minimize interference.
3	Clear your cache - Mac.
4	Clear your cache - Windows.
5	If you're still having trouble.
6	Exporting high-resolution still images.
7	Using images from Google Geo Media Updates Alerts.

For more Multimedia Storytelling lessons, visit:

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Movie Maker: Build your tours in the places folder.

SINGLE STEP

For the fastest, cleanest render, build your tours in a Google Earth Pro Places folder and use Movie Maker just as is demonstrated in the Google Earth Pro lesson. Creating a tour from a folder results in a much smaller, tighter, efficient file—and often a cleaner render.

Other methods are less efficient. While it's possible to export animations using the **Record a Tour** tool located in the top menu bar, all movements are captured in the 3D View which can result in a bulky tour file and wobbles or jumps in the Movie Maker render. Recording a tour within Movie Maker using "Live mouse and keyboard navigation" can also result in large files and choppy renders now that Google Earth has such high definition imagery.
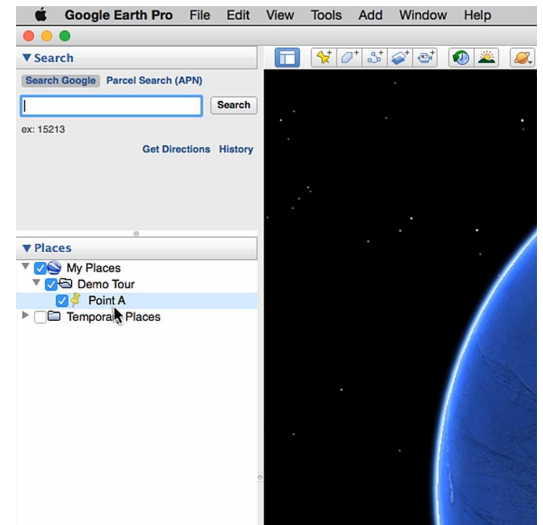
Minimize interference.

Ideally, a Google Earth Pro render takes place using a powerful video card and lots of RAM (8GB or more). Still, Google Earth Pro should work well on your PC or Mac as long as it can run without interference. For best result:

Quit all other applications while using Google Earth Pro.
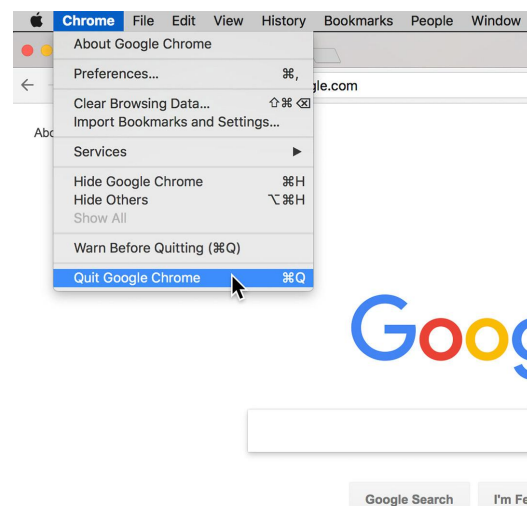
Within Google Earth Pro, turn off any layers you're not using.
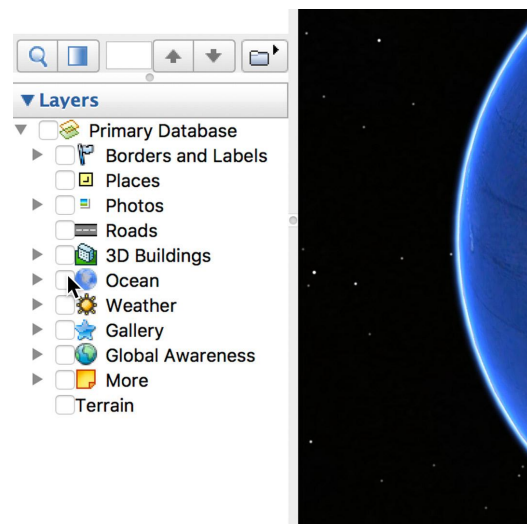
Clear your cache - Mac.

Before rendering a tour, especially one that features a lot of 3D buildings, it's also best to clear your cache. A full cache is storing a lot of downloaded information unrelated to Google Earth Pro, so clearing it makes room to store imagery needed for a proper render. To clear your cache on a Mac:

First, be sure to save your tour. To do that, click folder icon on the left sidebar.
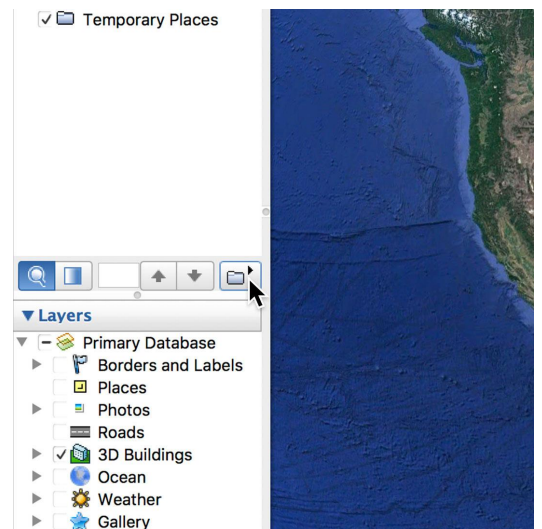
Then click on the disk icon in the popup play bar on the map.
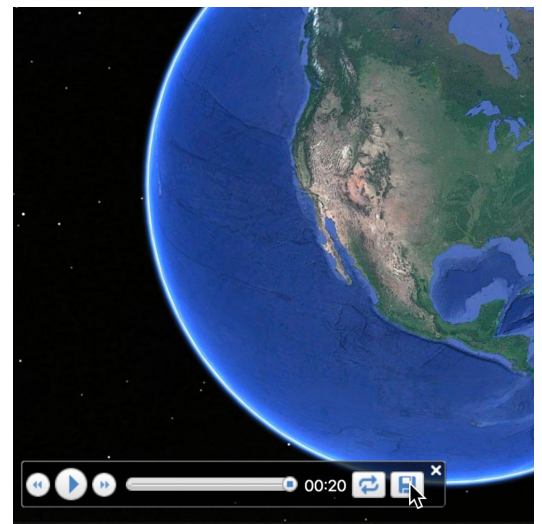
Go to **Google Earth Pro** in the menu, and select
Preferences.
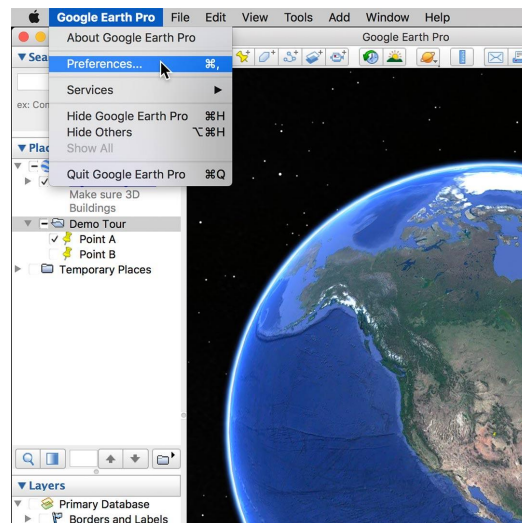
Then select the **Cache** tab. Select both **Clear Memory
Cache** and **Clear Disk Cache**. Click **OK**.
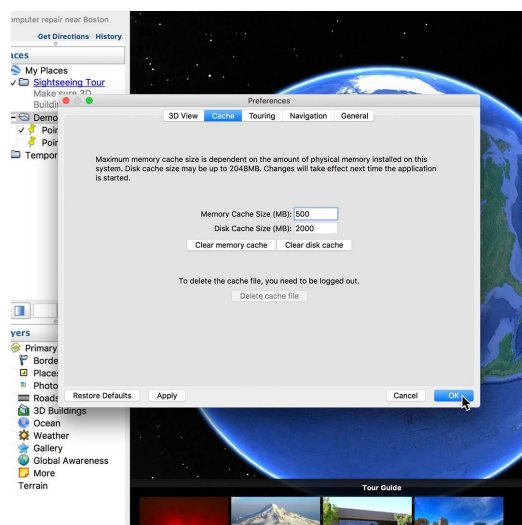
Quit Google Earth Pro, then relaunch it.
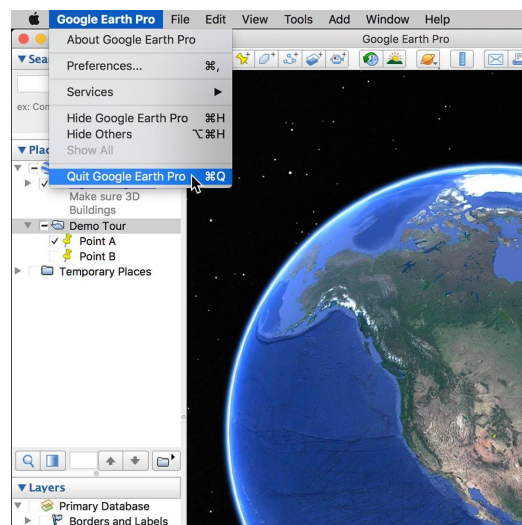
Play through your tour a few times to prime the cache with the imagery in your tour.
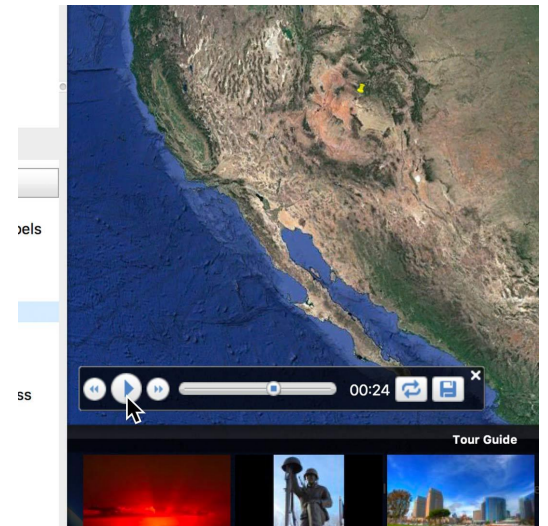
Clear your cache - Windows.

How to clear your cache on Windows:

First, be sure to save your tour. Click folder icon on the left sidebar.
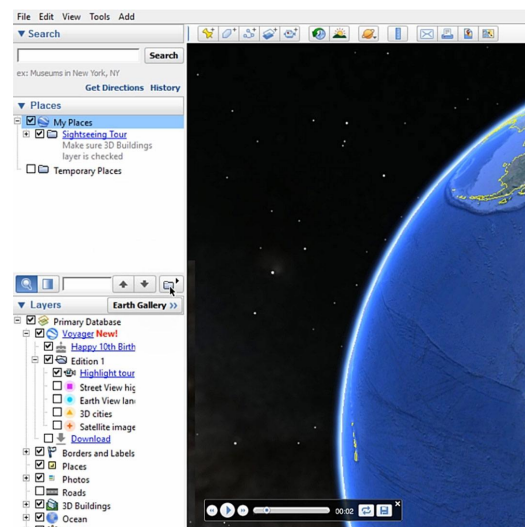
Then click on the disk icon in the popup play bar on the map.
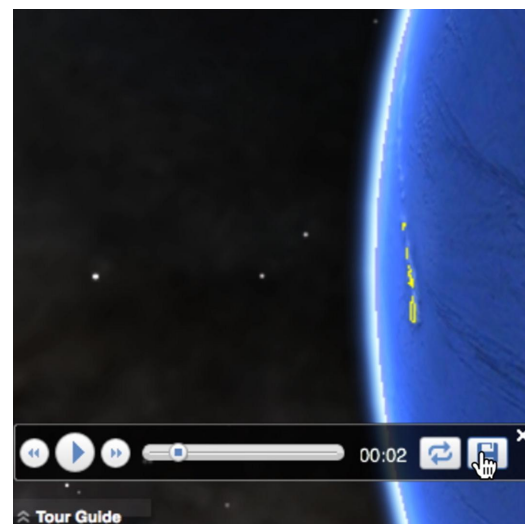
Go to **Tools**, then **Options**.
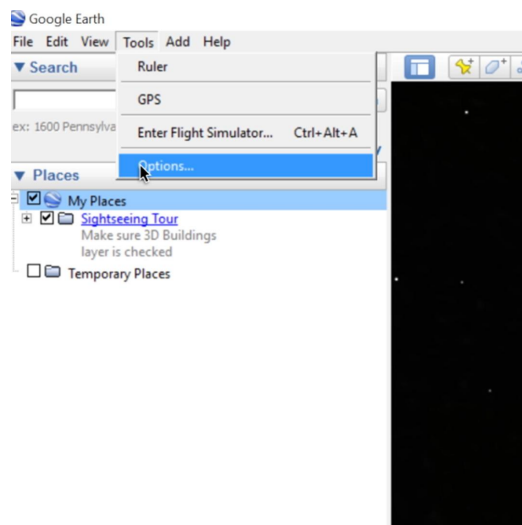
Then select the Cache tab. Select both **Clear Memory Cache** and **Clear Disk Cache**.
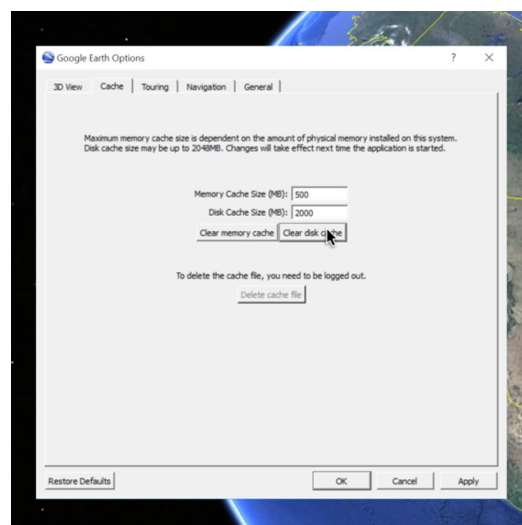
Quit Google Earth Pro, then relaunch it.
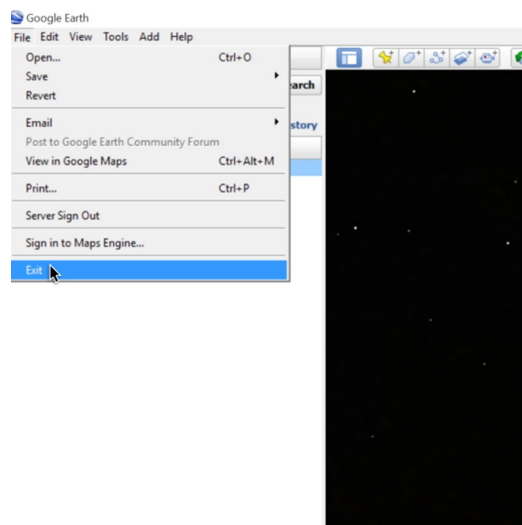
Play through your tour a few times to prime the cache with the imagery in your tour.

If you're still having trouble.

As mentioned, a powerful video card and lots of RAM makes for the best tour renders, so older or slower Macs or PCs may still have trouble rendering after the cache is cleared.

If this is the case, try playing through the tour without recording. Stop every few seconds to allow the 3D imagery along the route to load. Once you've stopped and started through the whole tour, try recording again.
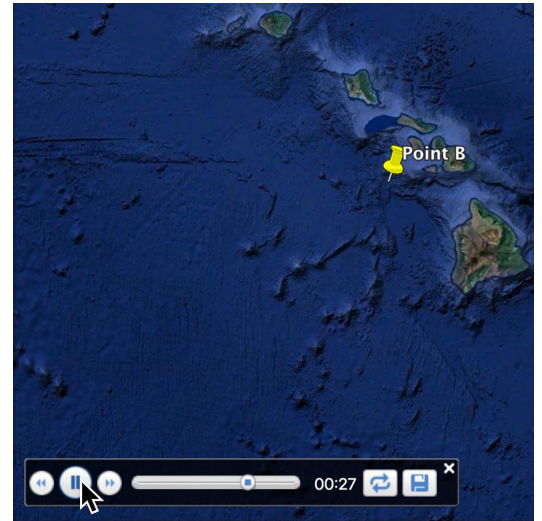
Exporting high-resolution still images.

It's easy to save and export high-resolution still images from Google Earth Pro, which you can use as infographics in news stories.

Get to the image you want to save, and go to **File**, **Save**, and **Save Image**. Several small buttons will appear above the map.
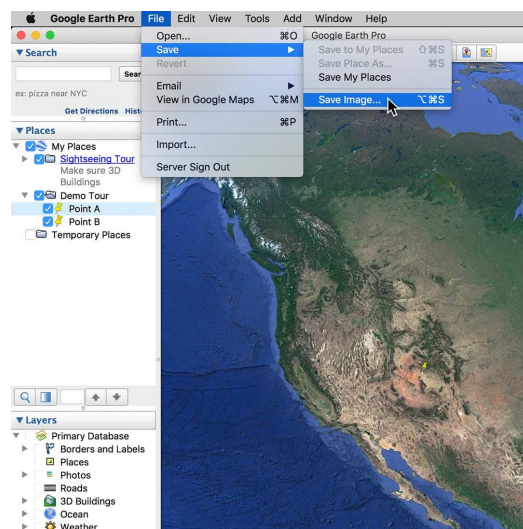
Map Options allows you to turn off elements on the map such as Title and Legend.
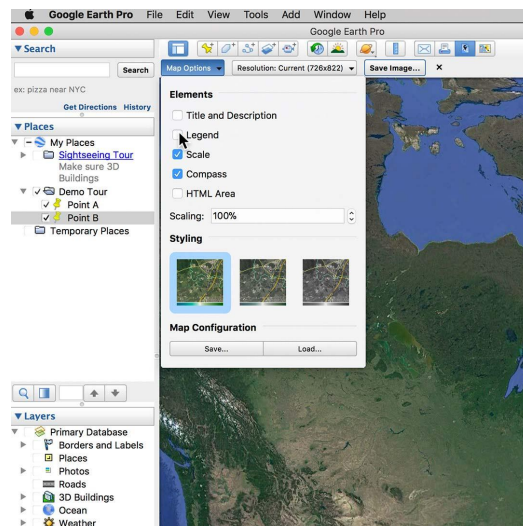
Resolution lets you customize the size of the saved image.
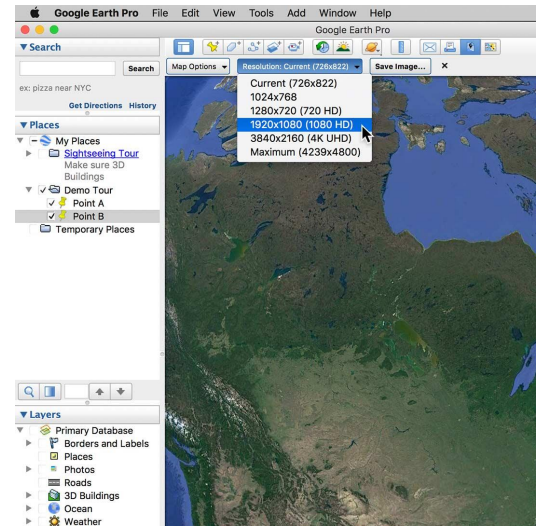
Once you've made these choices, just press **Save Image**.
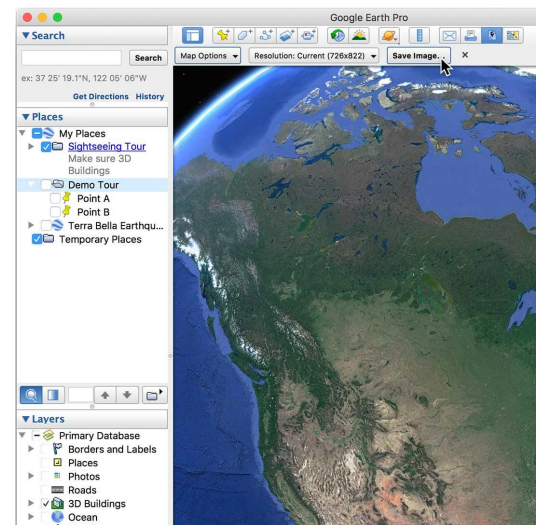
Then select the location in the computer where you want the image to be saved.
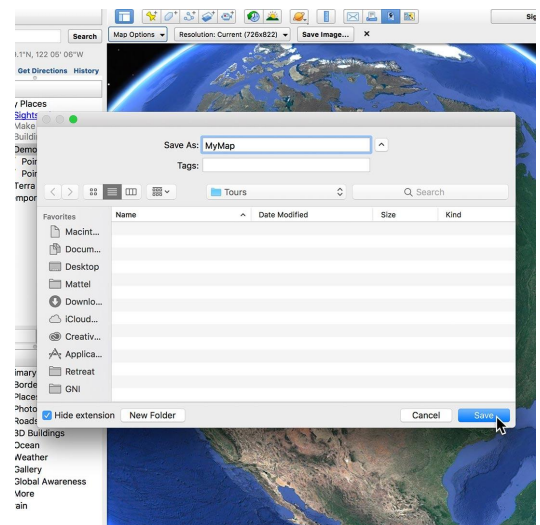
Using images from Google Geo Media Updates Alerts.

If you've signed up for Google Geo Media Updates, you may receive fresh satellite imagery of, say, damage from an explosion in Tianjin and want to create before and after images for a story. You can download the imagery and create infographics, interactive maps or use them in videos to illustrate the earthquake's impact on the area:

Use the link in the alerts email you received to view the imagery in Google Drive.

August 13, 2015
Satellite imagery of Tianjin explosion

We've received fresh satellite imagery of the Tianjin explosion, collected by may use this imagery in your news coverage, just please be sure to visibly

Download high-res before and after images (credit: Skybox Imaging), plus

https://drive.google.com/folderview?id=0BxEeOqcjSE5ufnhaeGQyUlRoSVl2
oSVlpMHNlOGs&usp=sharing

Questions? Feedback? Send a note to media.

Join the mailing list | Have a colleague who'd like to stay up to date on
Send them to Google Groups to sign up.

Download the .KMZ file to your computer.

Shared with me > Tianjin explosion - August 2015

Folders   Name ↑

GIFs

Files

After_acq1...   Before_acq...   Tianjin - Sk...
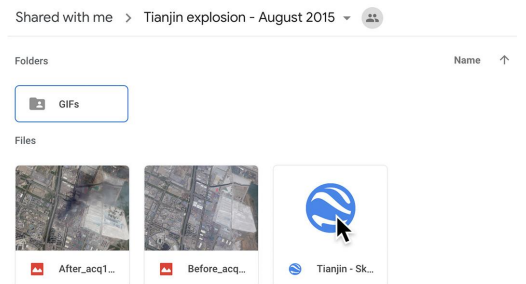
Open the file in Google Earth Pro to view to the location and imagery.
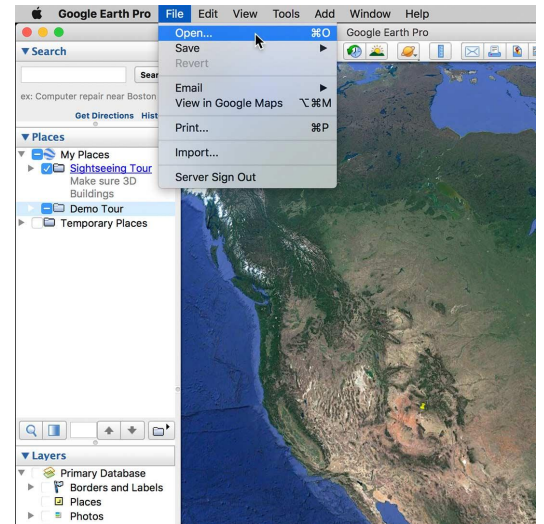
In Google Earth Pro's Places panel, you can turn the downloaded imagery "off" and "on" in order to see and save a "before" and "after" view.
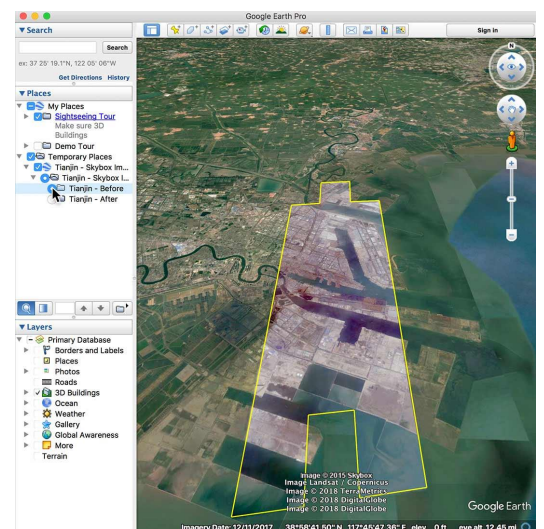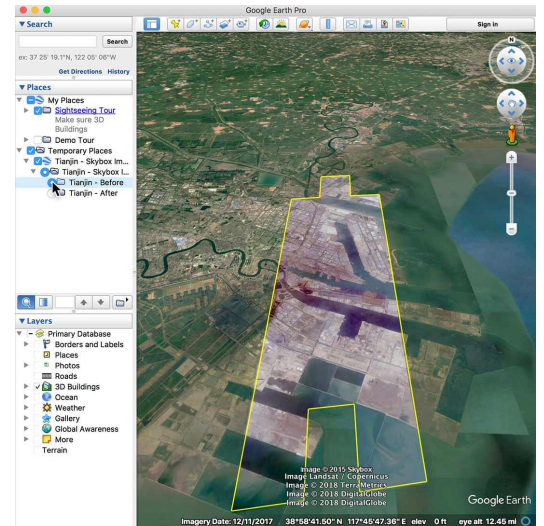
The day/month/year that view was collected can be seen in the bottom right corner of the 3D View.

For more detailed instructions on how to optimize your tours for smooth playback, or to do more sophisticated edits, visit sites.google.com/site/kmltouring/

Congratulations!

You completed "Google Earth Pro: Exporting optimal videos and stills."

To continue building your digital journalism skills and work toward Google News Initiative certification, go to our Training Center website and take another lesson:

10 min estimated time

Google Fusion Tables: Creating intensity maps

Make demographic data easier to understand.

For more Multimedia Storytelling lessons, visit:

newsinitiative.withgoogle.com/training/course/multimedia-storytelling

LESSON 08

Google Fusion Tables: Creating intensity maps

Make demographic data easier to understand.

Lesson overview

About Google Fusion Tables

Google Fusion Tables has many helpful features, but the most popular by far is its ability to create free choropleth maps (intensity maps) with just a few simple steps. This makes it easy for journalists to visualize and publish demographic data, such as election or population numbers, so that readers can more easily understand the story.

1	Adding Google Fusion Tables to Drive.
2	Importing your data.
3	Review your Fusion Table and basic map.
4	Sourcing boundary data to create customized maps.
5	Arranging your merge (fusion).
6	Aligning your data.
7	View your shaded map.
8	Customizing your shaded map.
9	Sharing and embedding your map.

For more Multimedia Storytelling lessons, visit:

newsinitiative.withgoogle.com/training/course/multimedia-storytelling

Adding Google Fusion Tables to Drive.

If you've never used Google Fusion Tables before, you'll need to add the app to your Google Drive menu:

Click **New**, then **Connect More Apps**
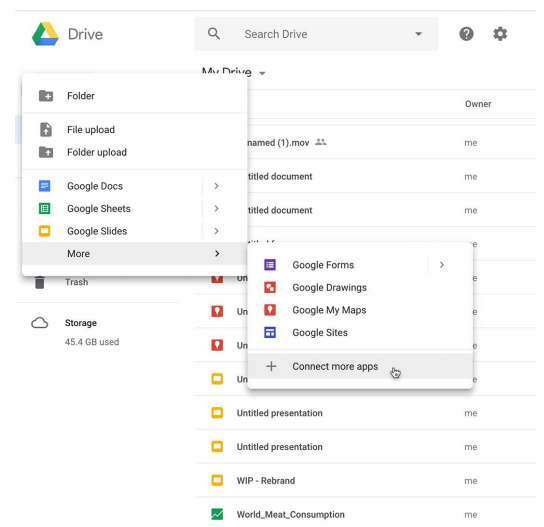
Search for Fusion Tables.
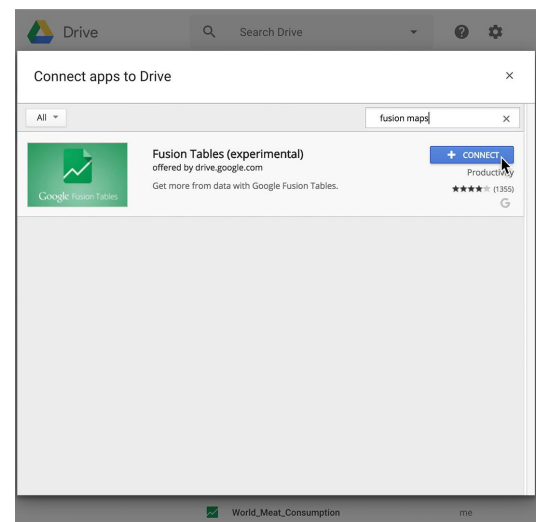
Once you add the app to your Drive, you'll always see it as an option in the menu.
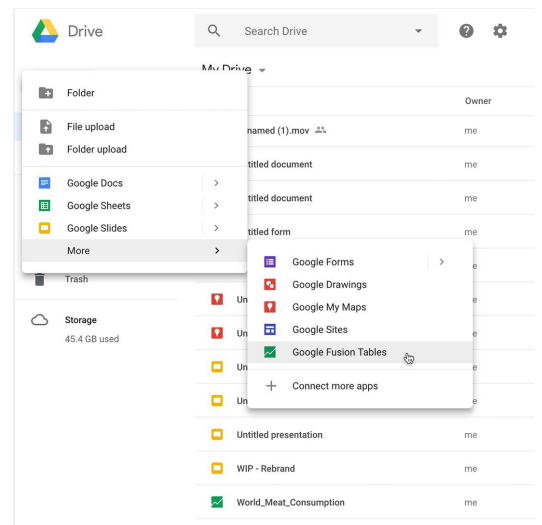
Importing your data.

Fusion Tables can import data in formats including .csv, .tsv, .txt and .kml; or directly from a Google Sheet.

Let's say you're doing a story on the environmental effects of cattle ranching, and want to create a map that represents meat consumption throughout the world. If you'd like to use the same sample .csv file of data that we're using for this exercise—global meat consumption numbers — click here to download it.

STEP 1 OF 3

Click **Choose File** and select a data file from your computer that you want to import, or **search public data tables**. Then click **Next**.
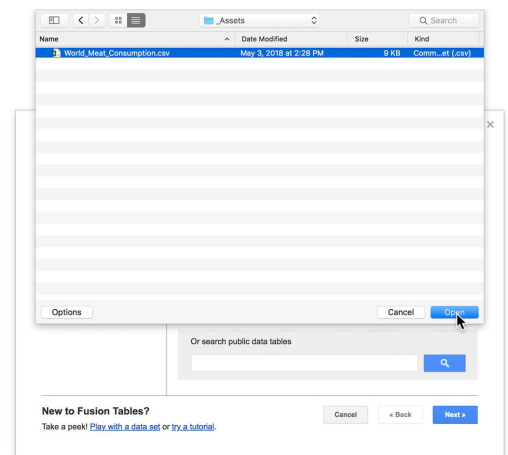
STEP 2 OF 3

Preview your Fusion Table data, then click **Next**.
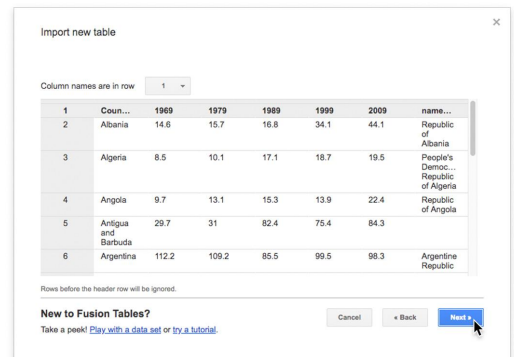
Here you'll have the opportunity to add metadata to your table, including a table name, data attribution details and a description. The Export option, when checked, allows other users to export this data as a file. Click **Finish**.

Google News Initiative

Review your Fusion Table and basic map.

It's critical to wait until the geocoding from the previous step is complete before continuing with the following steps.

Now you'll see your finished Fusion Table. You can edit the information and settings in this window at any time.

Click the **Map of Countries** tab and you'll see that the map visualization has already been created for you, using the location information listed in the column. This will drop a red placemark in each of the locations listed.
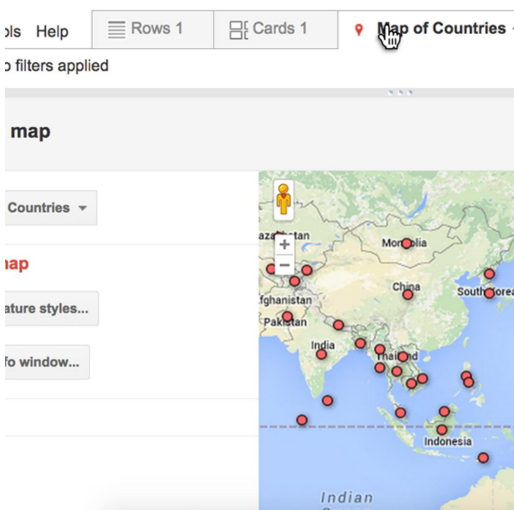
Sourcing boundary data to create customized maps.

Let's say that instead of using placemarks, you'd like to shade whole countries to more accurately represent your data.

To do this, you need boundary data--information that helps place your data within accurate borders on a map. Unfortunately, there isn't one location on the web to find all the boundary data you might need, so here are a couple of methods to try.

Try searching Google Tables for available boundary data sets.

Also, many boundary datasets have been uploaded by users and are free to the public, like this one that we'll use during this exercise, which covers country boundaries worldwide.

Arranging your merge (fusion).

To create your customized intensity map, you need to merge the table you just created in Google Fusion Tables with the boundary data, so that you can shade each country based on the meat consumption data. This is where the "fusion" in "Fusion Tables" comes from.
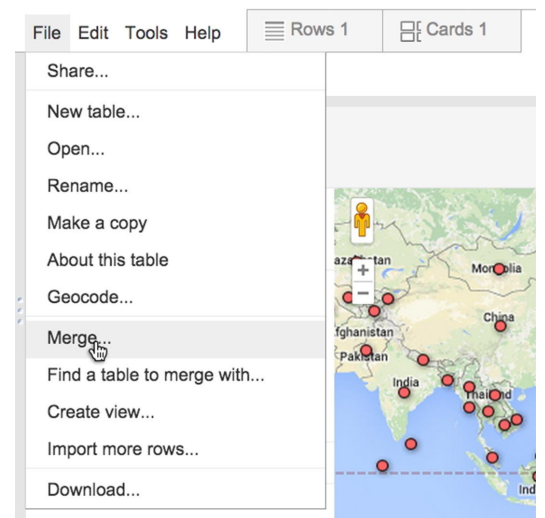
First, copy the URL for the boundary data provided (in the previous step).
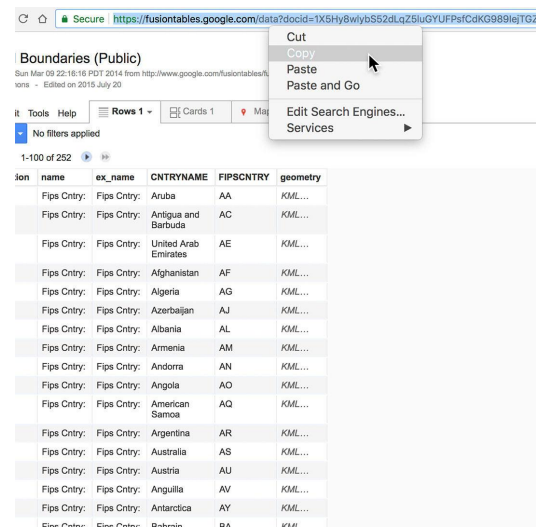
Now go to your meat consumption table and click **File**, then **Merge**.

Paste the boundary data URL into the field at the bottom of the menu. Click **Next**.

Aligning your data.

In order for Fusion Tables to properly merge two tables, each table needs to contain a column of similar, matchable data.
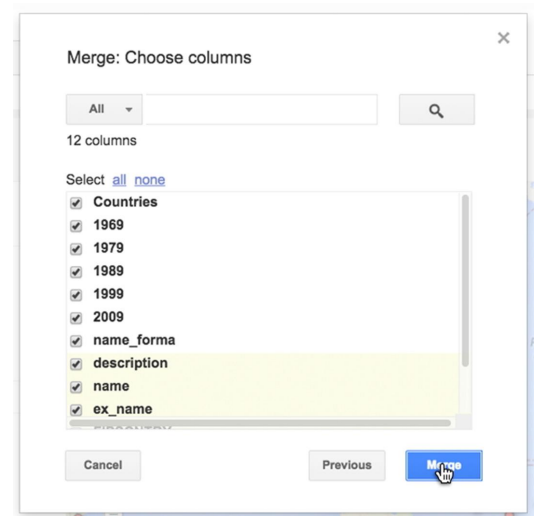
Now, choose which columns you'd like to merge—the information that will be included in each country's description when the map is complete. For this exercise, we'll include all the columns from both tables. Then click **Merge**.
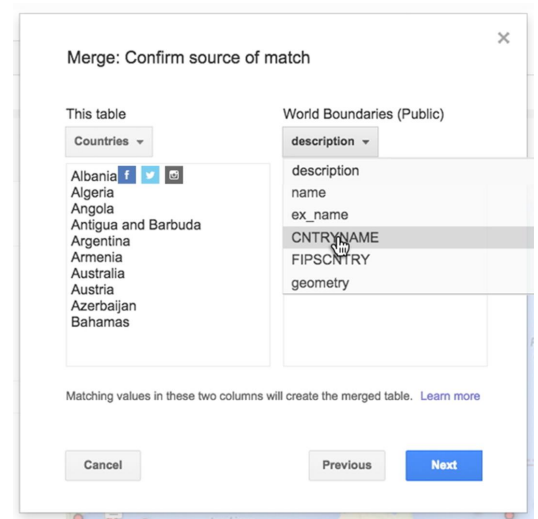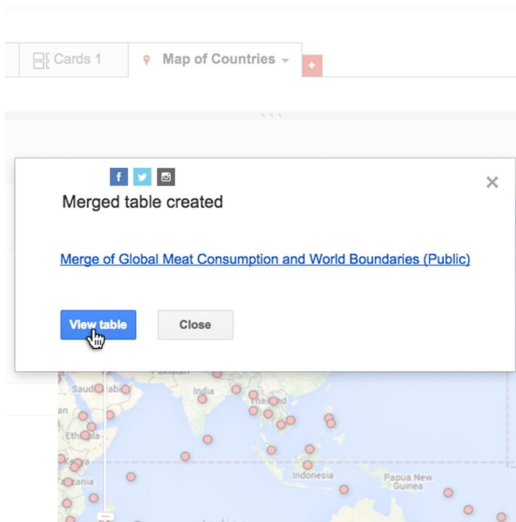
In this case, the column found in both tables is the Country Name column. Make sure both are selected in the two pulldowns. Click **Next**.

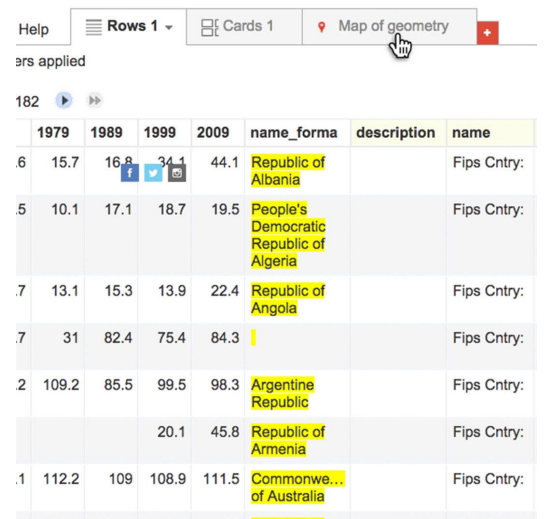To return to your Fusion Table, go to the next window and click **View table**.

View your shaded map.

Now click the **Map of Geometry** tab to see the intensity map.

If your map is not already centered in the window, pull it down to view it, and use the controls to move in closer to reveal your boundary graphics.

When you click on a country, the corresponding meat consumption info should show up in the window.
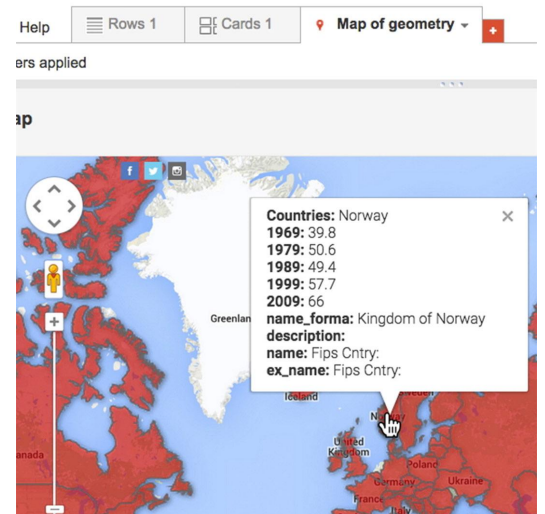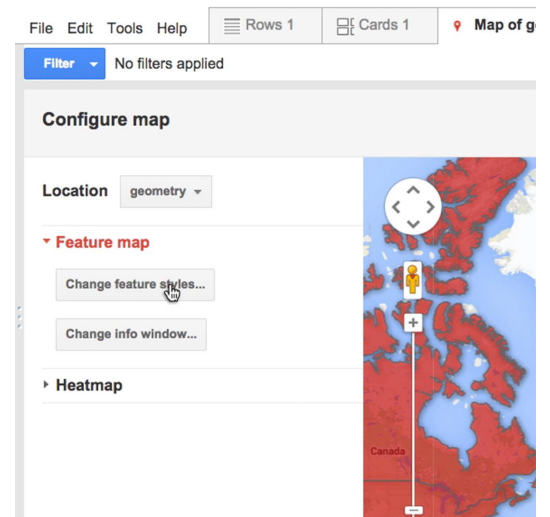
Customizing your shaded map.

Now let's add a gradient to the map to make it a true intensity map and more visually effective for the story. For this exercise, we'll shade the countries based on the 2009 data.

Click **Change feature styles** along the left (or, if you don't see that menu, go to **Tools**, then **Change map** to get the button to appear).

Under Polygons, select **Fill color**. Click the **Gradient** tab and then click **Show a gradient**. In the **Column** pulldown, you can customize the range, or use the suggested range. Make sure the 2009 column is selected, as we'll be shading the polygons (country shapes, in this case), based on this column of information. Here we can also tweak the colors.
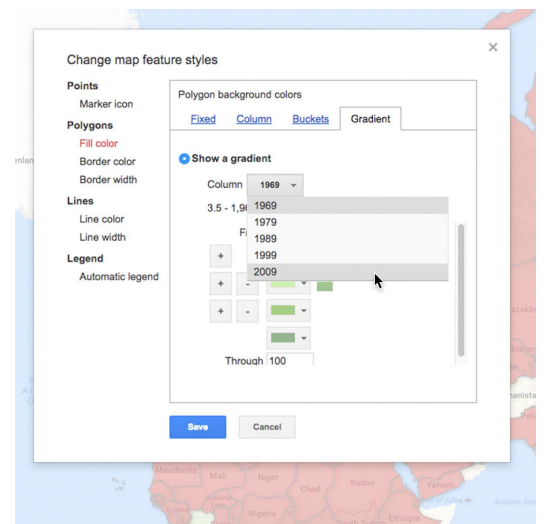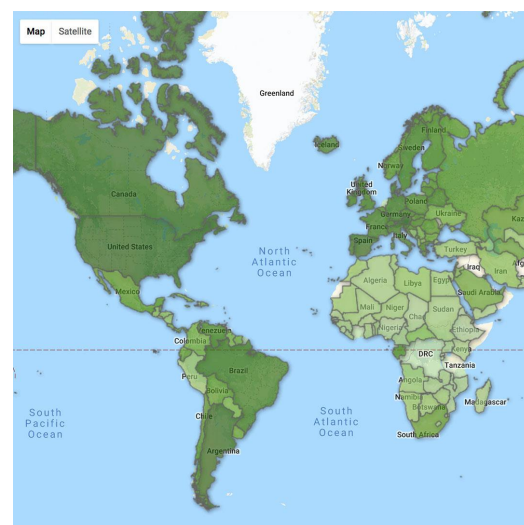
In this window we can also add a legend to our map. Just select the **Automatic legend** option in the menu on the left, then select a position for your legend. Click **Save**.
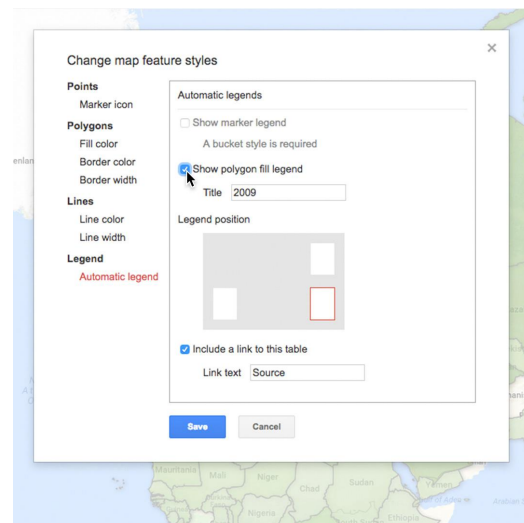
Now we can more clearly see which countries consumed more meat in 2009.

Sharing and embedding your map.

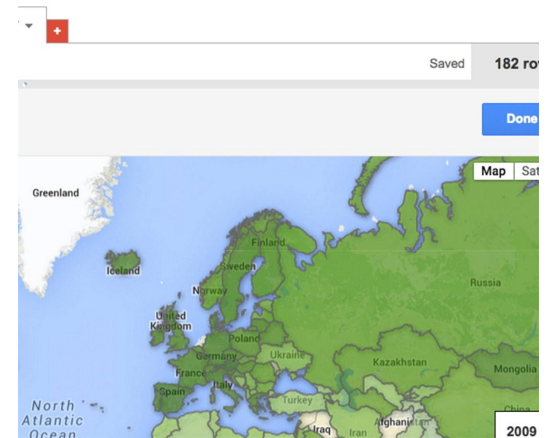The map is complete!

To share and embed this map on your website, first click **Share**.

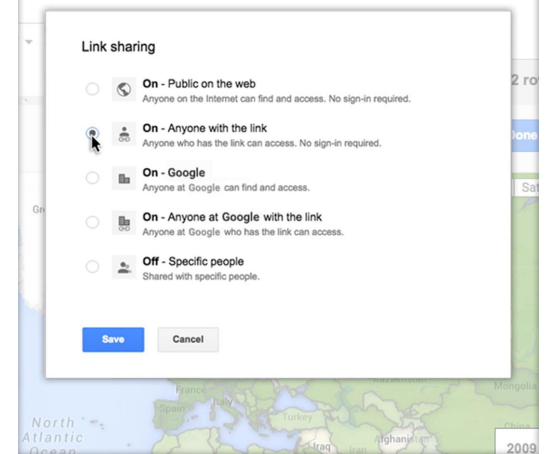Change your settings to either **Public** or **Anyone with the link**.

Now go to **Tools**, then **Publish**.
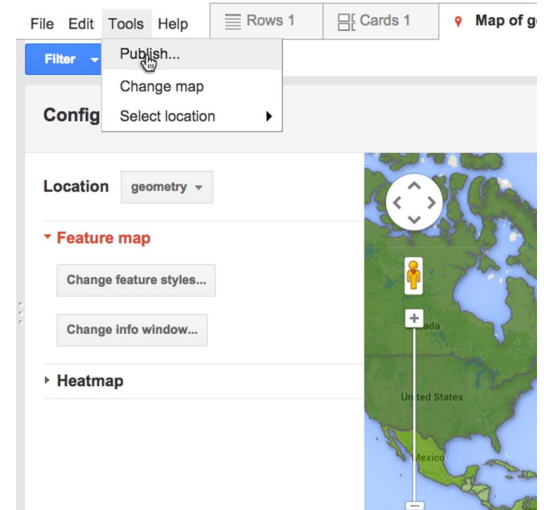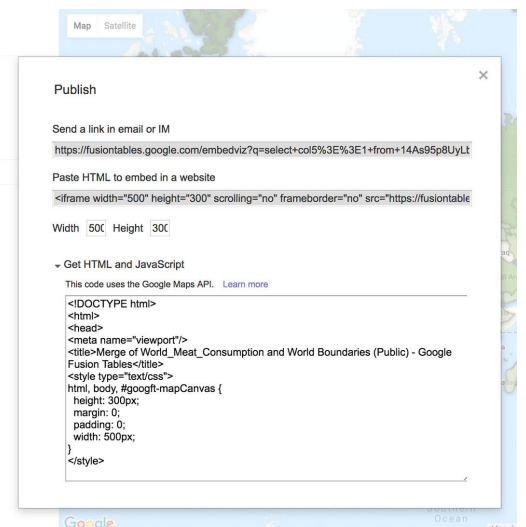
You can copy the URL for the table or copy and paste the iframe to embed the interactive map on your website. You can also change the height and width of your map directly in the iframe.

Use the HTML and JavaScript provided to further customize the look and style of your Fusion Tables map. You can also get inspired and grab code samples on the Google Maps API site

Congratulations!

You completed "Google Fusion Tables: Creating intensity maps."

To continue building your digital journalism skills and work toward Google News Initiative certification, go to our Training Center website and take another lesson.

For more Multimedia Storytelling lessons, visit:

newsinitiative.withgoogle.com/training/course/multimedia-storytelling