

Deep Dive into Fusion Tables



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Google earth outreach

What is Fusion Tables?



- Online light-weight database in the cloud
- Manage a lot of data easily
- Organize table and geographic data
- Visualize data on maps, bar charts, time lines, etc.
- Collaborate with colleagues to edit & discuss data.

Go to

docs.google.com

OR

google.com/fusiontables

What is Fusion Tables *NOT*?



- Not GIS software
- Not a strong analytical tool
 - But you *can* do light-weight analysis (query, summary, etc.)
- Not a strong database software
- No offline access

Go to

docs.google.com

OR

google.com/fusiontables

Import your Data

- Import your own table data (from CSV or Excel format)
- Import your own geographic data (from KML format only)

Import new table

From this computer Donors_example.csv

Separator character Comma Tab Colon Other

Character encoding

You can upload spreadsheets, delimited text files (.csv, .tsv, or .txt), and Keyhole Markup Language files (.kml) [Learn more](#)

Import new table

Specify import.

Column number

Import

1	Name	Address	Email	Donation Amount	Date	
2	Karina Prescott	25745 Bassett Lane, Los Altos, CA 94022	kprescott@gm	\$5	8/1/2011	
3	Tanya Larson	450 Serra Mall, Stanford, CA 94305	fcho@gmail.co	\$5	8/4/2011	Ma
4	Tanya Larson	3860 Middlefield Road, Palo Alto, CA 94302	fcho@gmail.co	\$5	9/8/2011	At event

Rows before the header row will be ignored.

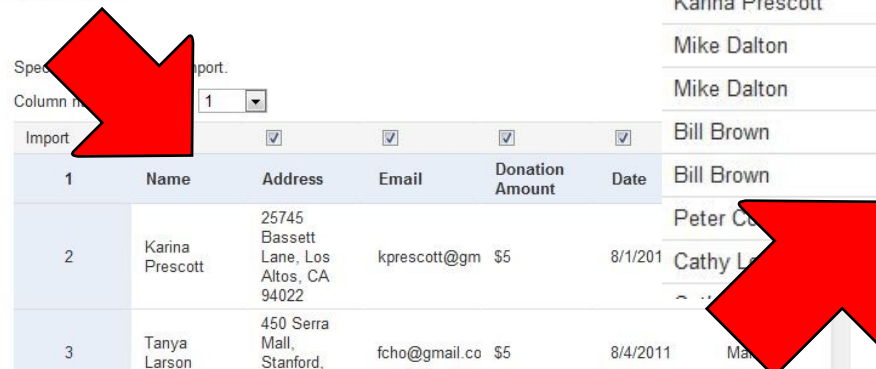
Donors_example.csv

File View Edit Visualize Merge

Showing all rows [options](#)

Name	Address
Karina Prescott	25745 Bassett Lane, Los Altos, CA 94022
Tanya Larson	450 Serra Mall, Stanford, CA 94305
Tanya Larson	3860 Middlefield Road, Palo Alto, CA 94303
Karina Prescott	1 Amphitheatre Parkway, Mountain View, CA
Mike Dalton	201 South Market Street, San Jose, CA 95113-2008
Mike Dalton	320 Moorpark Way, Mountain View, CA 94041
Bill Brown	151 W. Mission Street, San Jose, CA 95110
Bill Brown	1885 Miramonte Avenue, Mountain View, CA 94040
Peter C	480 S California Ave, Palo Alto, CA 94306
Cathy L	10000 Walter Welsher Court, Gilroy, CA 95020-9704

Cancel « Back Next »



Merge or Join Multiple Tables

- Merge or join multiple tables
 - Based on common column!

Merge with another table ×

1 Choose the column to use for matching data across the two tables

2 Merge with

Enter a table name, ID, or URL.

Donors_example.csv

- Name
- Address
- Email
- Donation Amount
- Date
- How paid?

Select subset of columns

Farmers_Market_signups_example.csv

- Name
- Address
- Email
- Newsletter
- Clean-up
- Farmer's Market
- City Council

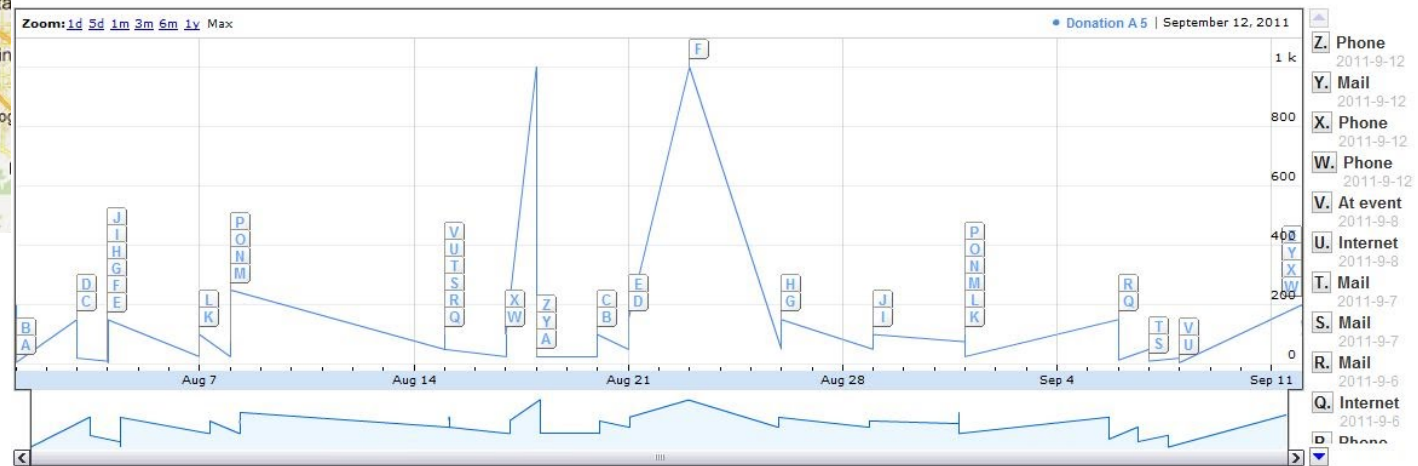
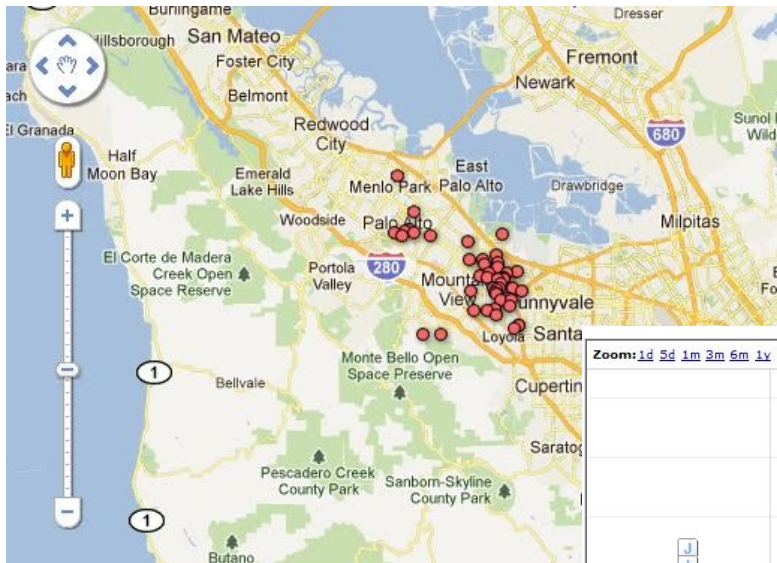
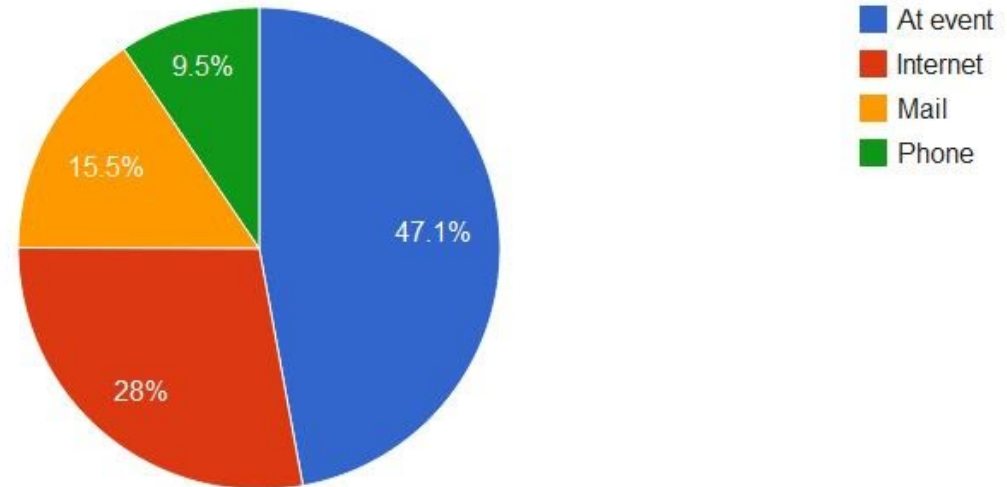
Select subset of columns

Save as a new table named

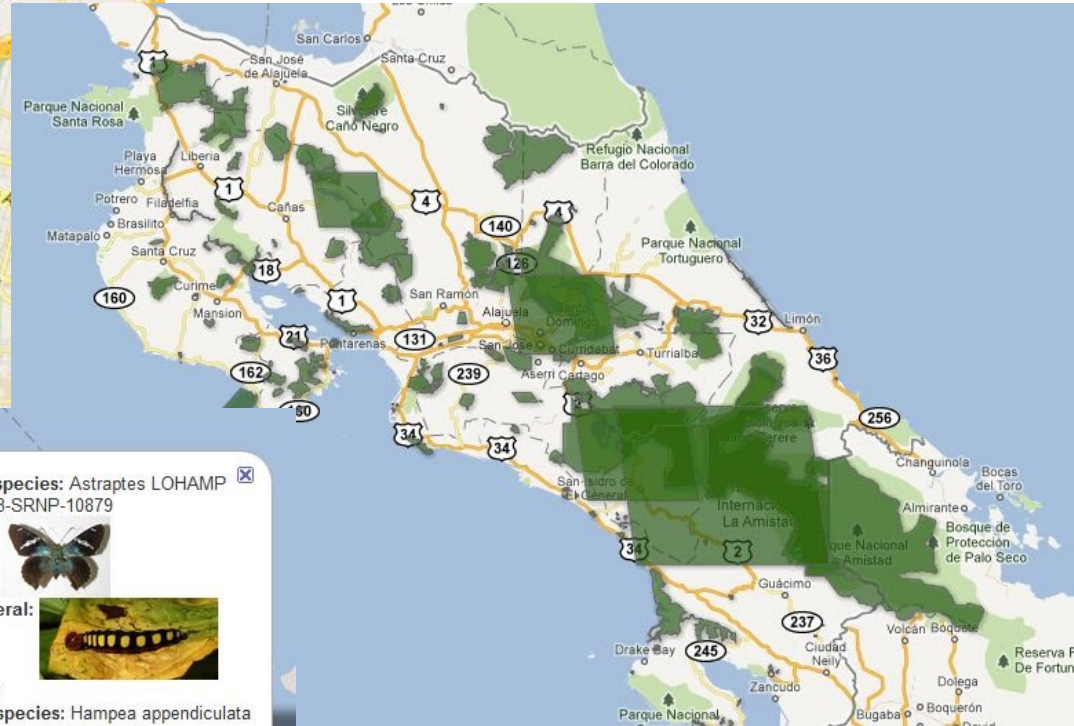
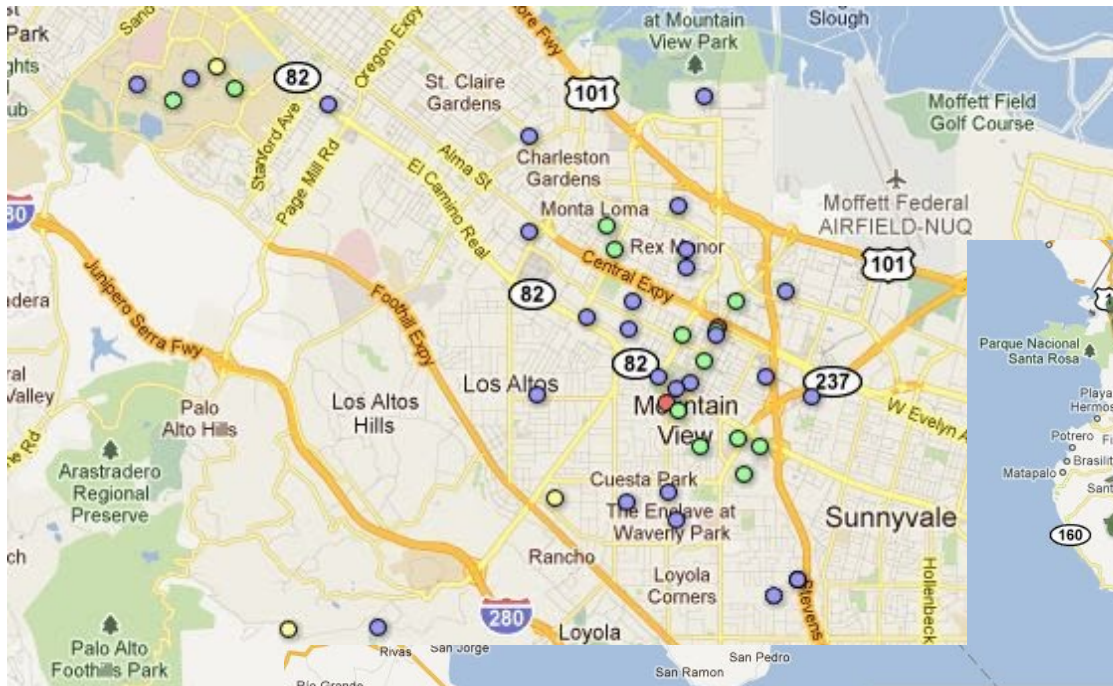
The merged table will be computed dynamically from the two base tables, using the rows from the first table. Changes to the base tables will be reflected in the merged table and vice versa.


Visualize your Data

- Map
- Timeline
- Pie chart
- ...and more!



Style your Maps



herbivore species: *Astraptes LOHAMP*
voucher: 03-SRNP-10879
URL adult: 
URL cp lateral: 
sex: female
host plant species: *Hampea appendiculata*
host plant family: Malvaceae
year: 2003
date eclosion: 6/8/03
elevation: 420

Share your Tables

- Share your tables with colleagues or the world (or keep them private!)

Share this table ×

Invite people to ?

View
Can see and comment on the data

Edit
Can also edit the data and can invite others

Separate email addresses with commas.

Send email invitations

Visibility options ?

Public
Everyone on the internet can find and access. No sign-in required.

Unlisted
Anyone who has the link can access. No sign-in required.

Private
Only people explicitly granted permission can access. Sign-in required.

Editors are allowed to add people and change the permissions

Viewers (0)

Editors (0)

Owners (1)
permcreek@gmail.com

Comment & Discuss

- Comment on a cell value, or an entire row or column
- Great for collaborating!

Donors_example.csv

File View Edit Visualize Merge

Showing all rows [options](#)

Name ▾	Address ▾	Email ▾	Donation An
Karina Prescott	25745 Bassett Lane, Los Altos, CA 94022		
Tanya Larson	450 Serra Mall, Stanford, CA 94305		
Tanya Larson	3860 Middlefield Road, Palo Alto, CA 94303		
Karina Prescott	1 Amphitheatre Parkway, Mountain View, CA		
Mike Dalton	201 South Market Street, San Jose, CA 95113-2008		
Mike Dalton	320 Moorpark Way, Mountain View, CA 94041		
Bill Brown	151 W. Mission Street, San Jose, CA 95110		
Bill Brown	1885 Miramonte Avenue, Mountain View, CA 94040		

Cell: (Karina Prescott | Email)

Current Cell value: kprescott@gmail.com

This email bounces -- we need an updated email address!

Save comment ?

Embed on a Website

- Embed your visualizations on a website (everything is linked in real-time)
- Table cannot be private! (must be 'unlisted' or 'public')

SATURDAY, SEPTEMBER 17, 2011

Example 2



Posted by Save Permanente Creek at 12:04 PM



Other Tools: Fusion Tables Layer Builder

- What is the Layer Builder?
 - Tool for overlaying multiple Fusion Tables on a map
- Table cannot be private! (must be 'unlisted' or 'public')

FusionTablesLayer Builder

This wizard helps you create the HTML for a map with a FusionTablesLayer and search element (either text-based search or select menu) in the textarea below to display the map on your own website! Please submit bug reports here: [Issue Tracker](#)

Add layer

Table needs to be public or unlisted. To find the table id, click File > About in the Fusion Tables menu.

Your table id:

Location Column:

Filter (optional): WHERE

Edit Map

Dimensions: W: px, H: px

Map Center:

Zoom:

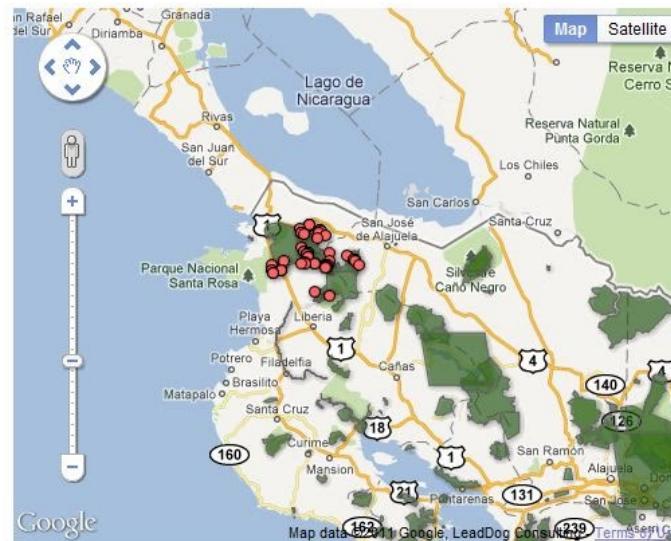
Style Map

Show: All features
[More options](#)

Saturation: Gray Bright

Add another feature

Preview



Other Tools: ShpEscape

- What is ShpEscape?
 - Tool for converting a zipped shapefile into a Fusion Table.

Shape to Fusion



228 shapefiles uploaded in the last few days. [1 in queue]

Upload a zip archive of one (or more) shapefiles for import into Google Fusion Tables

Upload a Zipped Shapefile: No file chosen

Advanced Options ▲

Notes:

- Your zipfile archive must include a *prj*, *shp*, *shx*, and *dbf* file for each shapefile
- You are limited to 200MB in total storage on Google Fusion Tables
- This application will upload a maximum of 100k rows
- If you have questions, leave a [comment](#)

Exercise 1



- Go to geoworkshops.earthoutreach.org/patagoniatools (under "Deep Dive into Fusion Tables"), and download:
 - Donors_example.csv
 - Farmers_Market_signups_example.csv
 - Costa Rica caterpillar data.csv
 - Costa Rica Protected Areas.kml
1. Import Donors_example.csv
 2. Explore data -- use 'Aggregate'
 3. Visualize as map, pie chart, and timeline
 4. Style map points by amount donated
 5. Share table as 'Unlisted' (if you want to embed later)

Extra Credit 1 (for more practice)



1. Import Farmers_Market_signups_example.csv
2. Visualize as map
3. Explore data -- use 'Filter'
4. Style map points
5. Share table as 'Unlisted' (if you want to embed later)

Exercise 2



1. Import Costa Rica caterpillar data.csv
2. Import Costa Rica Protected Areas.kml
3. Visualize both as map
4. Style info balloons for caterpillar point data
5. Style polygons as green for protected areas polygons
6. Share both tables as 'Unlisted'
7. Use Fusion Tables Layer Builder (linked from geoworkshops.earthoutreach.org/patagoniatools), to create a map.

Extra Credit 2



1. Download Costa Rica Protected Areas.zip from geoworkshops.earthoutreach.org/patagoniatools (under "Deep Dive into Fusion Tables")
2. Go to www.shpescape.com
3. Grant access (allows ShpEscape to add a table to Fusion Tables)
4. Upload Costa Rica Protected Areas.zip, and click 'Upload'