Web Mapping & Analysis APIs

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Today

- The Web as a source for data
- Web APIs
- API examples

The Web as a source for data

New forms of data

- New forms of data enabled by web technologies
- Digital life, digital traces, digitalised life (Lazer & Radford, 2017)
- Much of these data are available as an *accident* (Arribas-Bel, 2014)

Sources

Arribas-Bel (2014):

- *Citizens as sensors*
- Businesses moving online
- Open (government) data

“Citizens as sensors”

- Web 2.0 –> (data) consumers are *also* creators (Goodchild, 2007)
- Much of everyday life now recorded in a database
- (Parts of) these databases can be accessed

Twitter. It's what's happening.

https://twitter.com

Log in

See what's happening in the world right now

Join Twitter today.

Sign up

Log in

Follow your interests.

Hear what people are talking about.

Join the conversation.

Developer

https://developer.twitter.com

Developer

Sign in

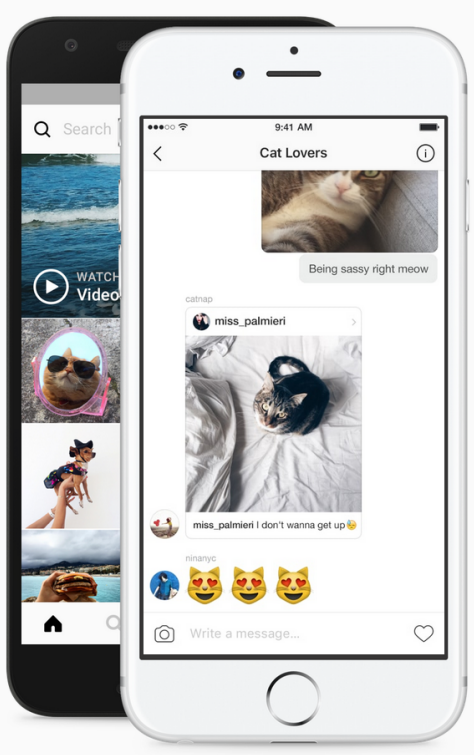
Developers

Tap into what's happening.

Publish and analyze Tweets, optimize ads, and create unique customer experiences.

Twitter Developer Labs is live: **Learn more** >

Use cases



Instagram

Sign up to see photos and videos from your friends.

Log in with Facebook

OR

Mobile Number or Email

Full Name

Username

Password

Next

By signing up, you agree to our Terms . Learn how we collect, use and share your data in our Data Policy and how we use cookies and similar technology in our Cookies Policy .

Have an account? Log in

Get the app.

Download on the App Store

GET IT ON Google Play

ABOUT US HELP PRESS API JOBS PRIVACY TERMS DIRECTORY PROFILES HASHTAGS LANGUAGE

© 2020 INSTAGRAM FROM FACEBOOK

Instagram | Sandbox Invites | Manage Clients | Log in

- Overview
- Authentication
- Login Permissions
- Permissions Review
- Sandbox Mode
- Secure Requests
- Endpoints
  - Users
  - Comments
- Embedding
- Mobile Sharing
- Libraries
- Support
- Changelog
- Platform Policy

API Endpoints

Once you've registered your client it's easy to start requesting data from Instagram.

All endpoints are only accessible via **https** and are located at **api.instagram.com**. For instance: you can retrieve photos with a given hashtag by accessing the following URL with your `access_token` (replace ACCESS-TOKEN with your own):

```
https://api.instagram.com/v1/self/media/recent?access_token=ACCESS_TOKEN
```

The Instagram API requires an `access_token` from authenticated users for each endpoint. We no longer support making requests using just the `client_id`.

Note

The URL examples throughout this documentation use ACCESS-TOKEN as a placeholder. For these examples to work, you need to substitute the value with your own `access_token`. In your application, you should have each user go through an authentication and authorization flow in order to receive a valid `access_token`.

Limits

Please refer to the limits documentation for information on rate limits that apply to API requests.

Deleting Objects

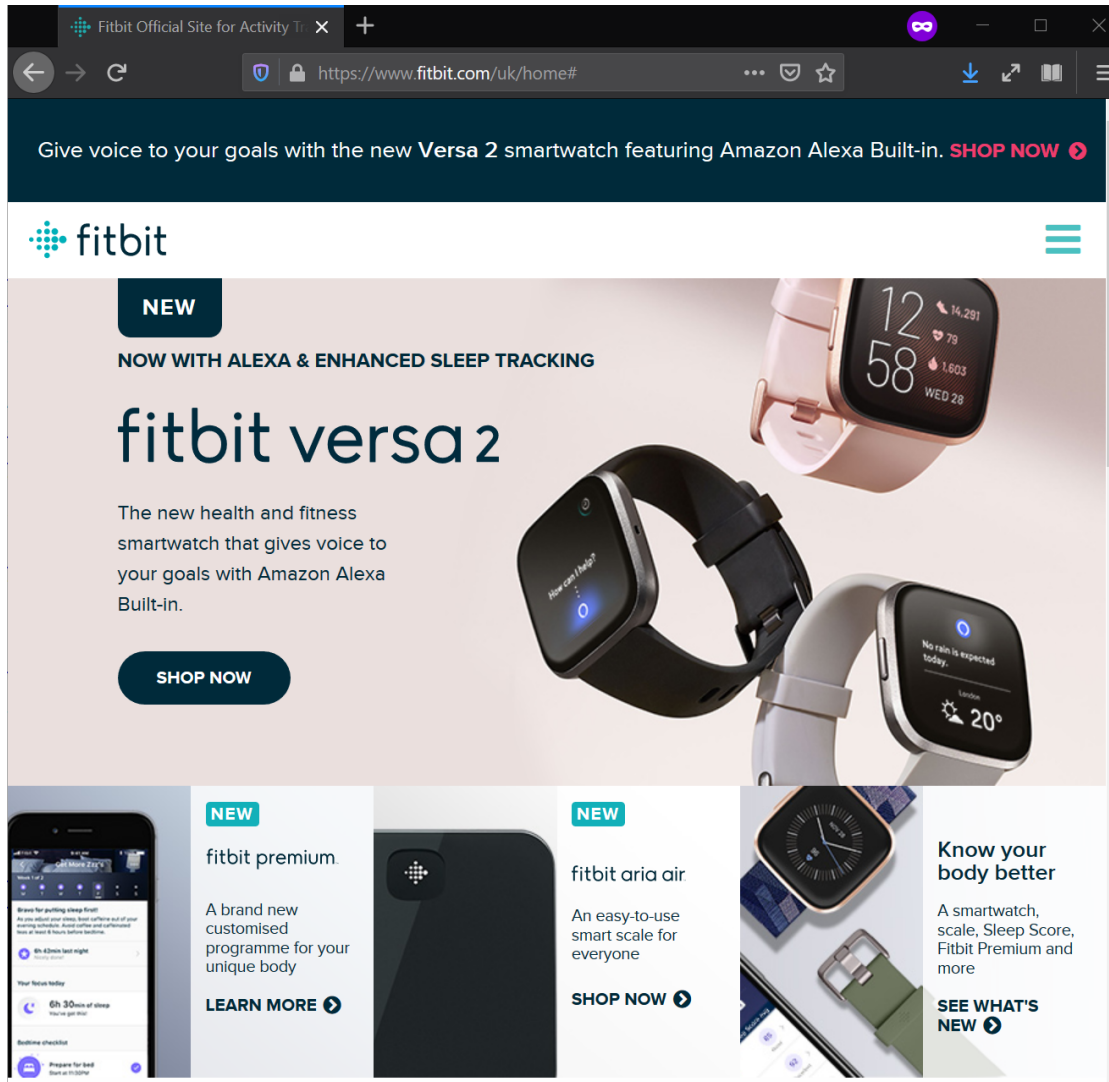
We do our best to have all our URLs be RESTful. Every endpoint (URL) may support one of four different http verbs. GET requests fetch information about an object, POST requests create objects, PUT requests update objects, and finally DELETE requests will delete objects.

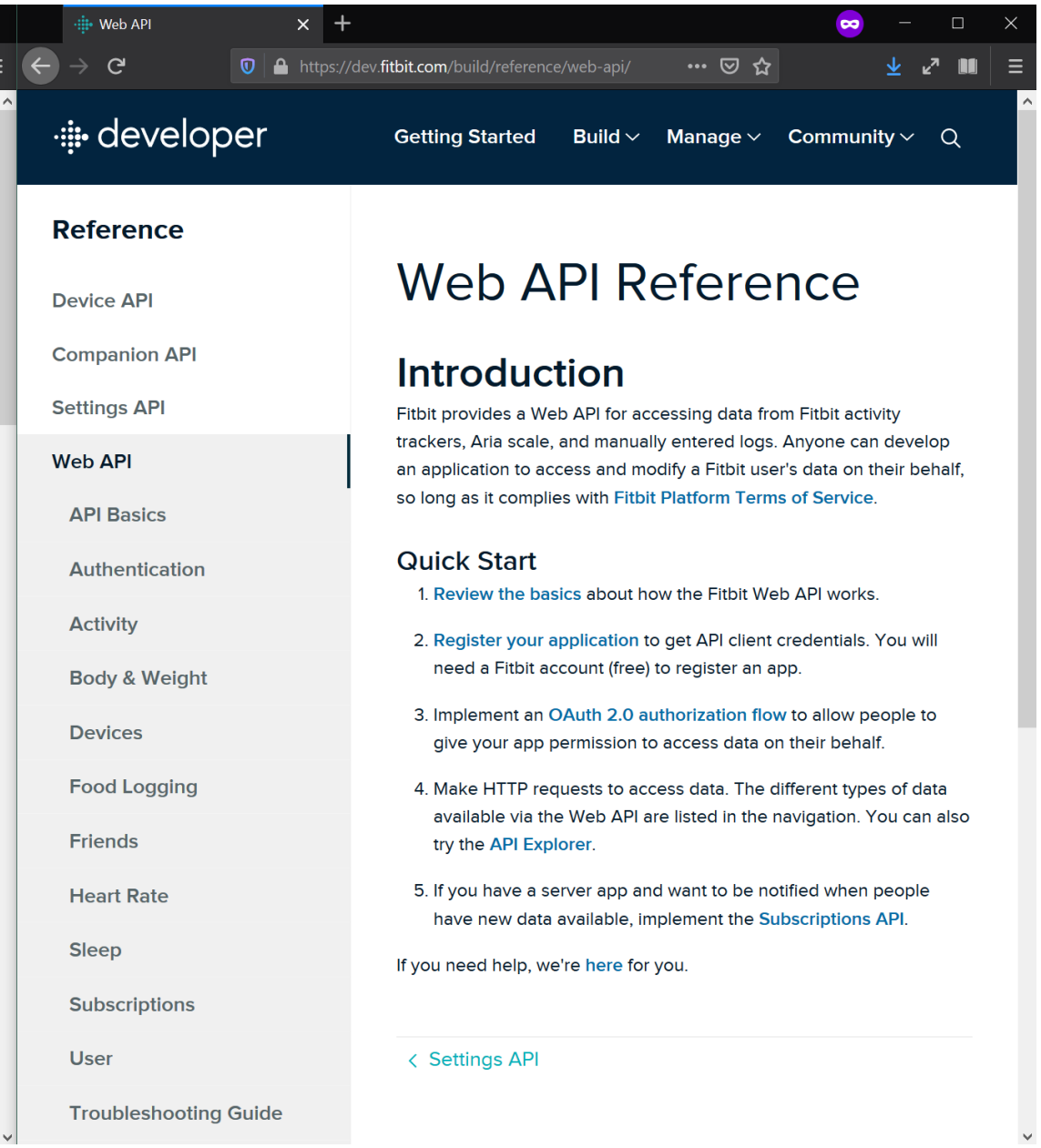
Structure

The Envelope

Every response is contained by an envelope. That is, each response has a predictable set of keys with which you can expect to interact:

```
{
    "meta": {
        "code": 200
```


Fitbit Official Site for Activity Tr
https://www.fitbit.com/uk/home#
Give voice to your goals with the new Versa 2 smartwatch featuring Amazon Alexa Built-in. SHOP NOW
fitbit
NEW
NOW WITH ALEXA & ENHANCED SLEEP TRACKING
fitbit versa 2
The new health and fitness smartwatch that gives voice to your goals with Amazon Alexa Built-in.
SHOP NOW
NEW
fitbit premium
A brand new customised programme for your unique body
LEARN MORE
NEW
fitbit aria air
An easy-to-use smart scale for everyone
SHOP NOW
Know your body better
A smartwatch, scale, Sleep Score, Fitbit Premium and more
SEE WHAT'S NEW
Fitbit motivates you to reach your health and fitness goals by tracking your activity, exercise, sleep


Web API
https://dev.fitbit.com/build/reference/web-api/
developer
Getting Started
Build
Manage
Community
Reference
Device API
Companion API
Settings API
Web API
API Basics
Authentication
Activity
Body & Weight
Devices
Food Logging
Friends
Heart Rate
Sleep
Subscriptions
User
Troubleshooting Guide
Web API Reference
Introduction
Fitbit provides a Web API for accessing data from Fitbit activity trackers, Aria scale, and manually entered logs. Anyone can develop an application to access and modify a Fitbit user's data on their behalf, so long as it complies with Fitbit Platform Terms of Service.
Quick Start
1. Review the basics about how the Fitbit Web API works.
2. Register your application to get API client credentials. You will need a Fitbit account (free) to register an app.
3. Implement an OAuth 2.0 authorization flow to allow people to give your app permission to access data on their behalf.
4. Make HTTP requests to access data. The different types of data available via the Web API are listed in the navigation. You can also try the API Explorer.
5. If you have a server app and want to be notified when people have new data available, implement the Subscriptions API.
If you need help, we're here for you.
Settings API

“Businesses moving *online*”

- Business activities digitalised (or entirely digital)
- Records stored in databases, that can also be accessed
- Active/passive collection (eg. IoT)

LOCALES EN RENTA
PREVIA CITA
2225360644
301
303
YORK
NUTRISA
Google maps
Street View
google.com/streetview

Earn Money by Driving or Get

https://www.uber.com/gb/en/

Uber

Log in Sign up

Earn Ride Eat Freight Business Work Bike Fly

Get in the driver's seat and get paid

Drive on the platform with the largest network of active riders.

Sign up to drive

Learn more about driving and delivering

Uber Movement: Let's find sma

https://movement.uber.com/?lang=en-GB

Uber Movement Products Cities Case Studies Sign in

Let's find smarter ways forward, together.

Cincinnati

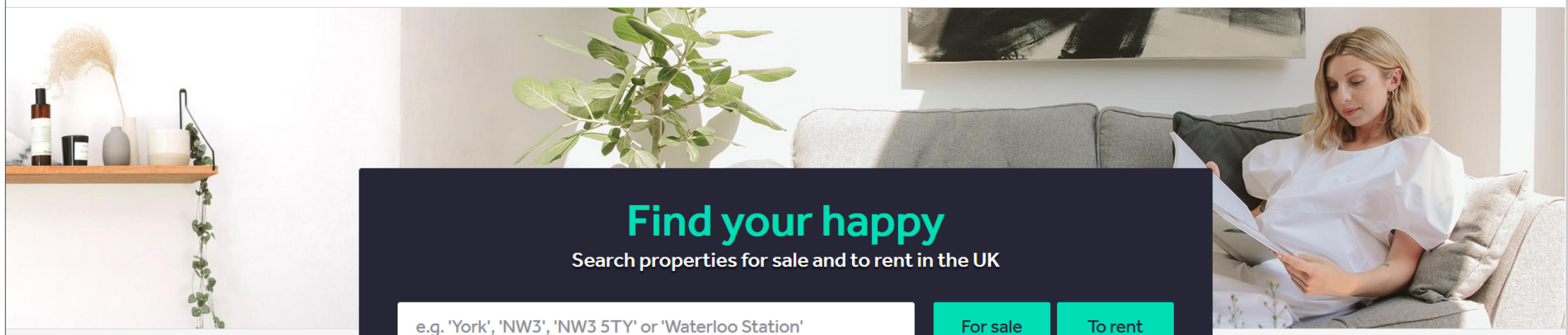
Uber Movement shares anonymized data aggregated from over ten billion trips to help urban planning around the world.

Rightmove - UK's number one

https://www.rightmove.co.uk

rightmove

Buy Rent Find Agent House Prices Commercial Inspire Overseas Sign In



Find your happy

Search properties for sale and to rent in the UK

e.g. 'York', 'NW3', 'NW3 5TY' or 'Waterloo Station'

For sale

To rent

Map search

Property maps

Quick links: England, Scotland, Wales, Northern Ireland, London, London stations.

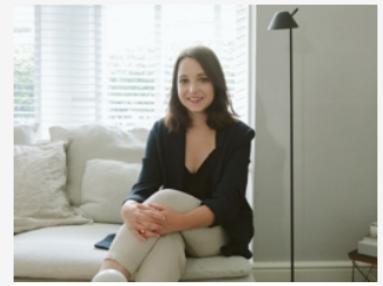
or Draw a search >

Dream Properties

Prisoner of war camp tower has been totally transformed

It's a remarkable renovation.

Visit the Rightmove Blog >



Moving Stories

This is why renting is perfect for this couple

This married couple found their happy letting a Victorian home in Leytonstone.

Find out more >

Where can I live?

Be the first to see new properties

Register with us to get instant property alerts as soon as a property hits Rightmove, save properties and searches, personalise content, and more...

Get property alerts

Recent searches

You have no recent searches.

Stay connected

Governments “opening up”

- Public institutions releasing internal data under open licenses
- Variety of reasons (transparency, economic value, service…)
- Not to take for granted!

Place overview - Global Open D

https://index.okfn.org/place/

GLOBAL OPEN DATA INDEX

Places Datasets Download Insights Methodology About Help

OPEN KNOWLEDGE FOUNDATION

Home / Places

Share this page

Twitter Facebook Google+

Place overview

Table view | Map view

Search

Search for a place

Rank	Place	Government Budget	National Statistics	Procurement	National Laws	Administrative Boundaries	Draft Legislation	Air Quality	National Maps	Weather Forecast	Company Register	Election Results	Locations	Water Quality
1	Taiwan													
2	Australia													
2	Great Britain													
4	France													
5	Finland													
5	Canada													
5	Norway													

Home | data.police.uk

https://data.police.uk

DATA.POLICE.UK

Cymraeg

Home | Data | API | Changelog | Contact | About

Welcome to data.police.uk

This is the site for open data about crime and policing in England, Wales and Northern Ireland.

You can download street-level crime, outcome, and stop and search data in clear and simple CSV format and explore the API containing detailed crime data and information about individual police forces and neighbourhood teams.

You can also download data on police activity, and a range of data collected under the police annual data requirement (ADR) including arrests and 101 call handling.

All the data on this site is made available under the Open Government Licence v3.0.

DOWNLOADS

Download Police.uk data in batches

API DOCS

Access Police.uk data via an API

CHANGELOG

See what's new, see what's coming soon

Cookies

OpenData | How to Use Open

https://www.ordnancesurvey.co.uk/business-government/tools-supp

Leisure | **Business and Government** | Education | Log in

Ordnance Survey

Products | Licensing and agreements | Partners and members | **Tools and support** | Sectors | Innovation

Business and government / Tools and support / OS OpenData support

OS OpenData support

OS OpenData are a set of free digital maps of Great Britain, available for anyone to use, for any purpose.

Free download

Contact us

Getting started

Technical information

Links and downloads

Challenges

- Bias
- Licensing
- Access

Bias

- Who’s represented?
- Who’s missing?
- How is the data used?

Street Bump

www.streetbump.org

STREET BUMP

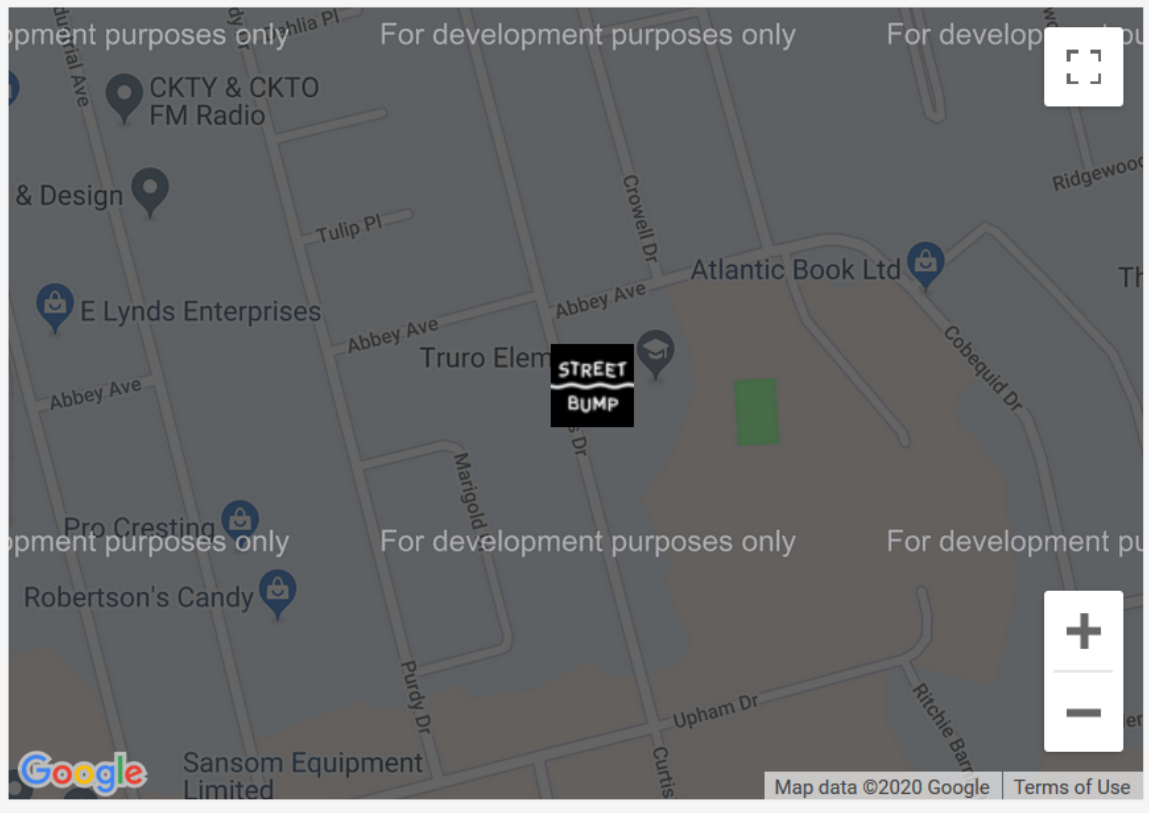
About

Sign In

Where's Street Bump being used?

549 trips, 37,016 bumps, 0 potholes filled, and 0 roadway problems identified

99 bumps reported in 101–199 Curtis Dr, Truro, NS over 5 years ago



Want to use Street Bump to improve your community? Contact Us

What's Street Bump?

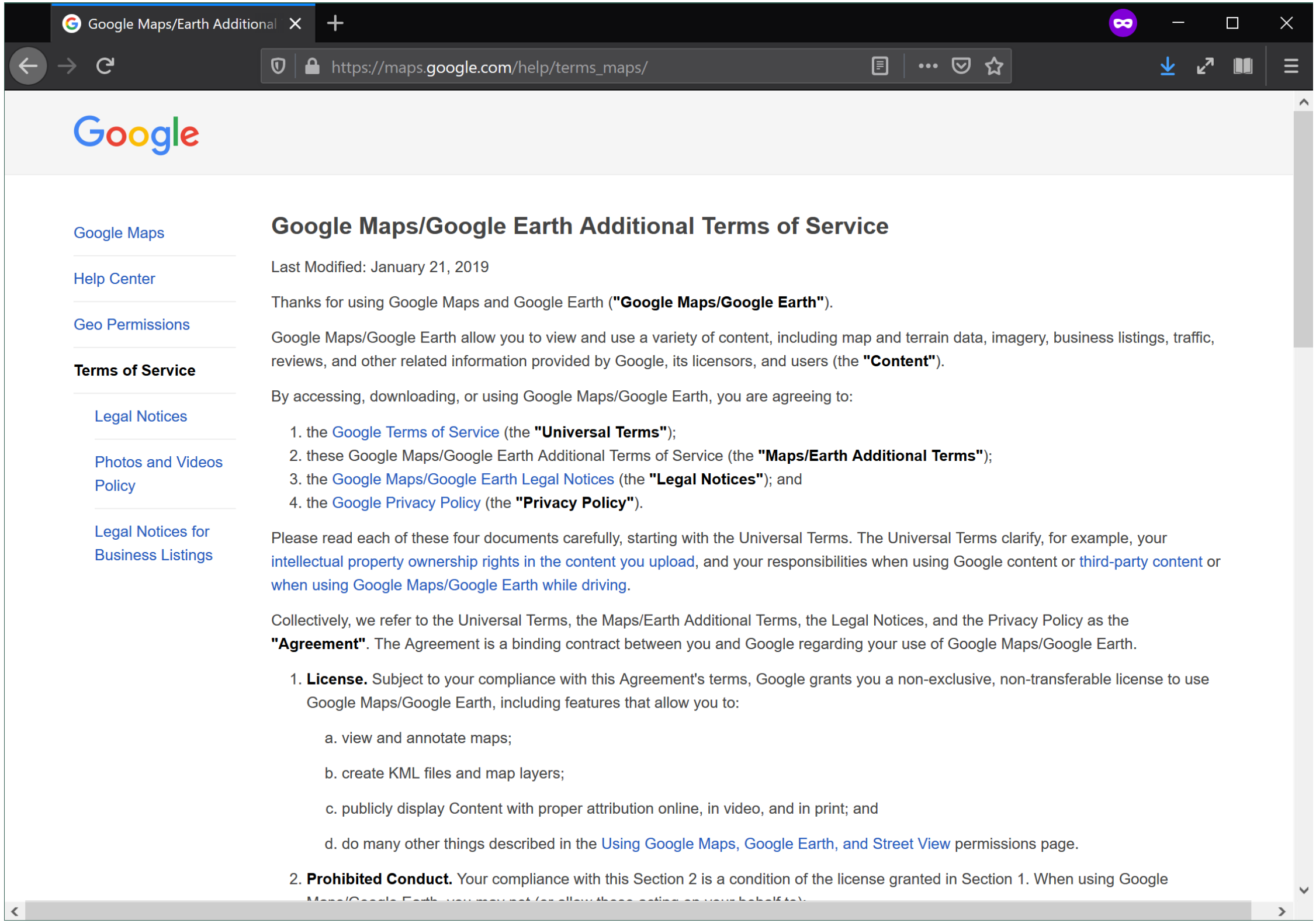
Street Bump is a crowd-sourcing project that helps residents improve their neighborhood streets. Volunteers use the Street Bump mobile app to collect road condition data while they drive. The data provides governments with real-time information to fix problems and plan long term investments.

Download on the App Store

Learn More

Licensing

- How accessible data can be used, what for
- “Free beer”, not “free speech”
- Evolving landscape


Google Maps/Earth Additional
https://maps.google.com/help/terms_maps/
Google
Google Maps
Help Center
Geo Permissions
Terms of Service
Legal Notices
Photos and Videos Policy
Legal Notices for Business Listings
Google Maps/Google Earth Additional Terms of Service
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2. these Google Maps/Google Earth Additional Terms of Service (the **"Maps/Earth Additional Terms"**);
3. the Google Maps/Google Earth Legal Notices (the **"Legal Notices"**); and
4. the Google Privacy Policy (the **"Privacy Policy"**).
Please read each of these four documents carefully, starting with the Universal Terms. The Universal Terms clarify, for example, your intellectual property ownership rights in the content you upload, and your responsibilities when using Google content or third-party content or when using Google Maps/Google Earth while driving.
Collectively, we refer to the Universal Terms, the Maps/Earth Additional Terms, the Legal Notices, and the Privacy Policy as the **"Agreement"**. The Agreement is a binding contract between you and Google regarding your use of Google Maps/Google Earth.
1. **License.** Subject to your compliance with this Agreement's terms, Google grants you a non-exclusive, non-transferable license to use Google Maps/Google Earth, including features that allow you to:
a. view and annotate maps;
b. create KML files and map layers;
c. publicly display Content with proper attribution online, in video, and in print; and
d. do many other things described in the Using Google Maps, Google Earth, and Street View permissions page.
2. **Prohibited Conduct.** Your compliance with this Section 2 is a condition of the license granted in Section 1. When using Google

Access

- Vehicles used to make data available are programmatic (APIs)
- Mostly based on web technologies
- Additional set of skills required

Web APIs

Web APIs

Programmable interfaces to web services

- Machine-to-machine communication over the web
- Expose access to (parts of) databases, or output of computations
- Bridge between *client* and *server*

How APIs work

- Authenticate (potentially linked to billing) [Optional]
- Send query as URL
- Receive request (`(Geo)JSON`, `.csv`)

Web APIs: an example

Over HTTP (e.g. REST): the query is a URL:

```
https://services1.arcgis.com/
                ESMARspQHYMw9BZ9/arcgis/rest/services/
                LSOA_DEC_2011_EW_BSC/FeatureServer/0/
                query?
                where=1%3D1&
                outFields=*&
                outSR=4326&
                f=json
```

[URL]

Web APIs: language “bindings”

- Library in a programming language (e.g. Javascript, Python, R) to interact with an API
- Wrapper in the language around HTTP endpoints
- Expose API in familiar form for developers of that language

Web APIs: some thoughts

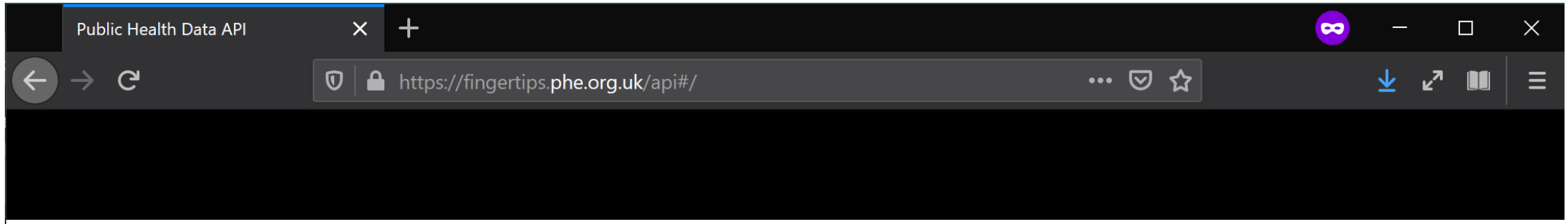
- Very useful to access new forms of data
- All different, but some patterns are broadly general
- Programming skills help to automate data access

API examples

API examples

Access to:

- Data
- Maps
- Computations



Public Health Data API

Areas

Show/Hide | List Operations | Expand Operations

Data

Show/Hide | List Operations | Expand Operations

Entities

Show/Hide | List Operations | Expand Operations

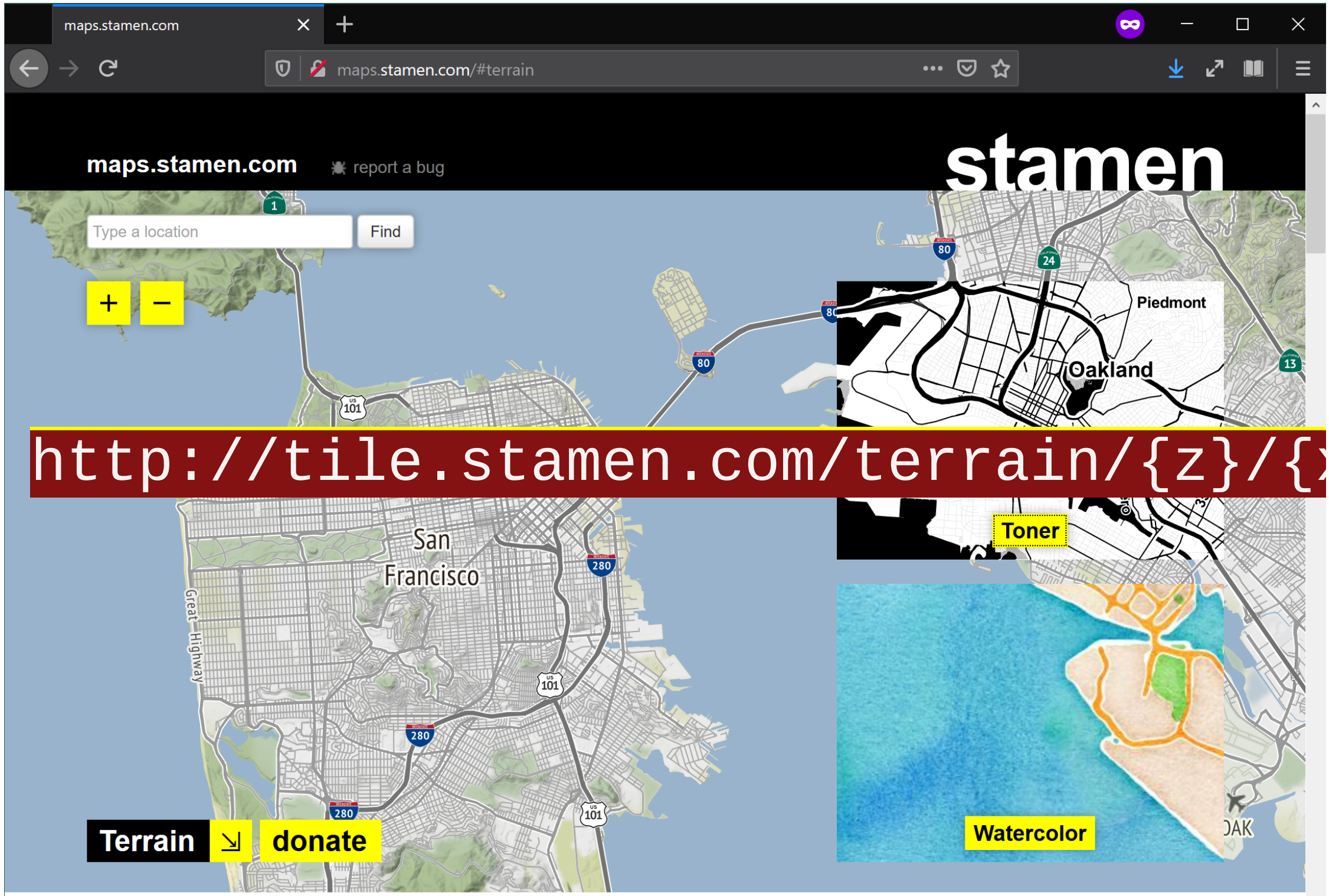
IndicatorMetadata

Show/Hide | List Operations | Expand Operations

GET	/api/indicator_metadata/by_indicator_id	Get the indicator metadata for a list of indicator IDs
GET	/api/indicator_metadata/by_group_id	Get indicator metadata for one or more profile groups
GET	/api/indicator_metadata/all	Get indicator metadata for all the indicators available
GET	/api/indicator_metadata_text_properties	Get a list of the properties that are available for indicator metadata
GET	/api/indicator_search	Finds indicators for each area type that match specific words
GET	/api/indicator_metadata/csv/by_indicator_id	Get a CSV file of metadata for the specified indicators
GET	/api/indicator_metadata/csv/by_group_id	Gets a CSV file of metadata for all the indicators in the specified profile group
GET	/api/indicator_metadata/csv/by_profile_id	Get a CSV file of metadata for all the indicators in the specified profile
GET	/api/indicator_metadata/csv/all	Get a CSV file of metadata for all the indicators available
GET	/api/indicator_names/by_group_id	Get a list of the indicators in the specified profile groups

Profiles

Show/Hide | List Operations | Expand Operations


maps.stamen.com
maps.stamen.com/#terrain
maps.stamen.com
report a bug
stamen
Type a location
Find
+
−
Piedmont
Oakland
San
Francisco
Great Highway
http://tile.stamen.com/{z}/{x
Toner
Watercolor
Terrain
donate

Routes & Directions | Google

https://cloud.google.com/maps-platform/routes/

Google Cloud

Sign in

Google Maps Platform

Overview Products Pricing Docs Blog

Contact sales Get started

Routes

Help your users find the best way to get from A to Z with comprehensive data and real-time traffic

GET STARTED

40 million
miles of roads

Build with reliable navigation information wherever you are.

25 million
updates daily

Count on accurate, real-time location information.

1 billion
monthly active users

Scale confidently, backed by our infrastructure.

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