

# TileMill

A modern map design studio  
powered by open source technology.



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Development Seed

Foss4g  
Sept 14, 2011

# devseed

## Development Seed and Mapping

Solid design, simple maps: <http://preparedness.interaction.org>

Big data sites / results in context: <http://afghanistanelectiondata.org>

Microsites: <http://data.awidercircle.org>

## MapBox - Open Source Tools

TileMill - Map design studio

TileStream - Ultra fast tile server

Mobile Apps for offline maps - iPad and MBTiles format



▶ Play



Map paused. Click play to resume.

## Development Seed

We are a creative data visualization and mapping team. We help organizations use data to explain complex issues and make better decisions.

NodeConf  
May 2011



Geneva Switzerland  
April 2011



U.S. School Districts  
June 2011



Port Au Prince  
April 2010



Food Security in Africa  
September 2008







# mapping

should be easy fun

simple to start and rewarding

warts later not first (projections, coordinates, kml)

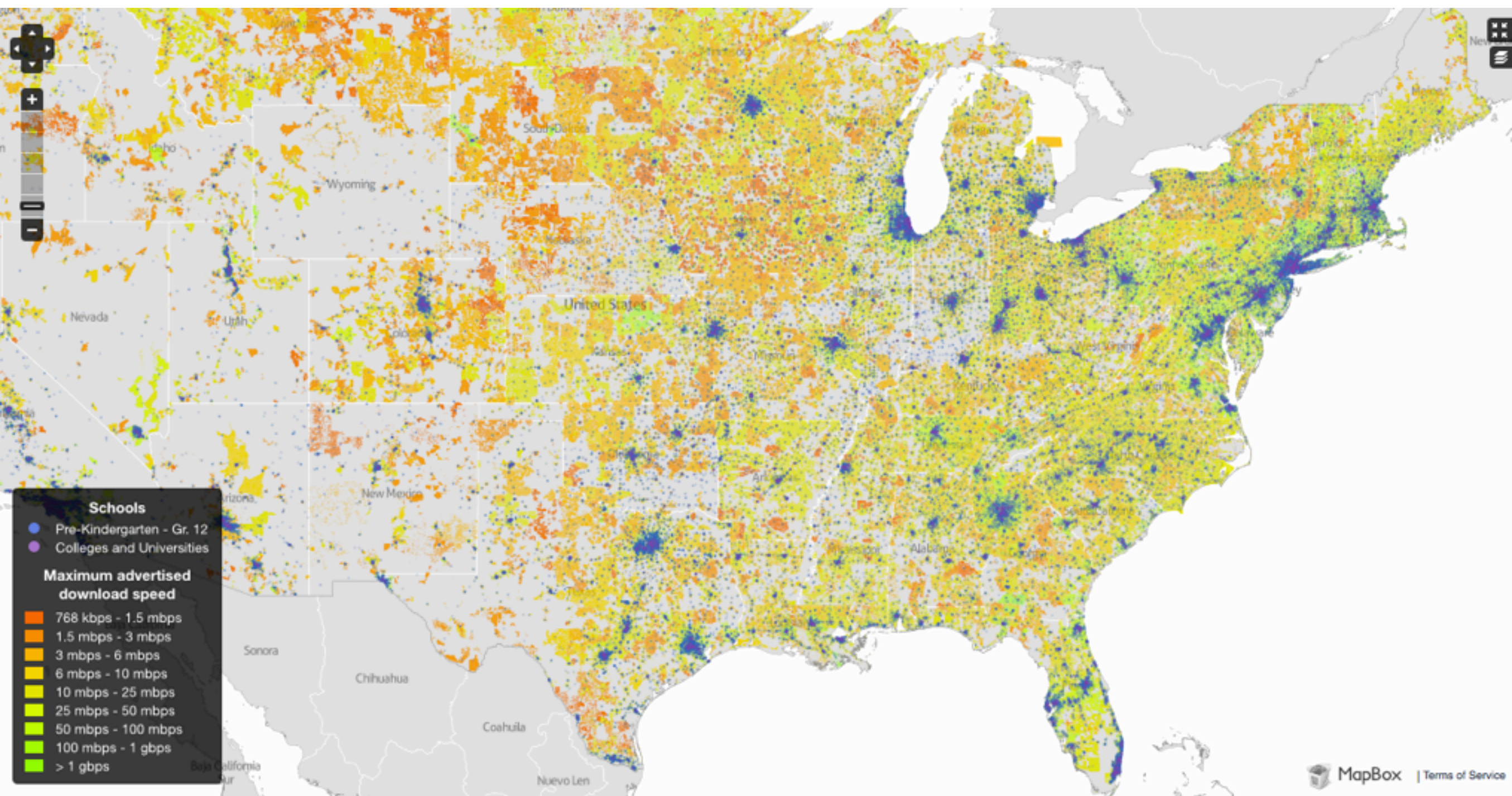
like good parts of web-dev

google maps, but free and open

integrate with free and open data like osm.org

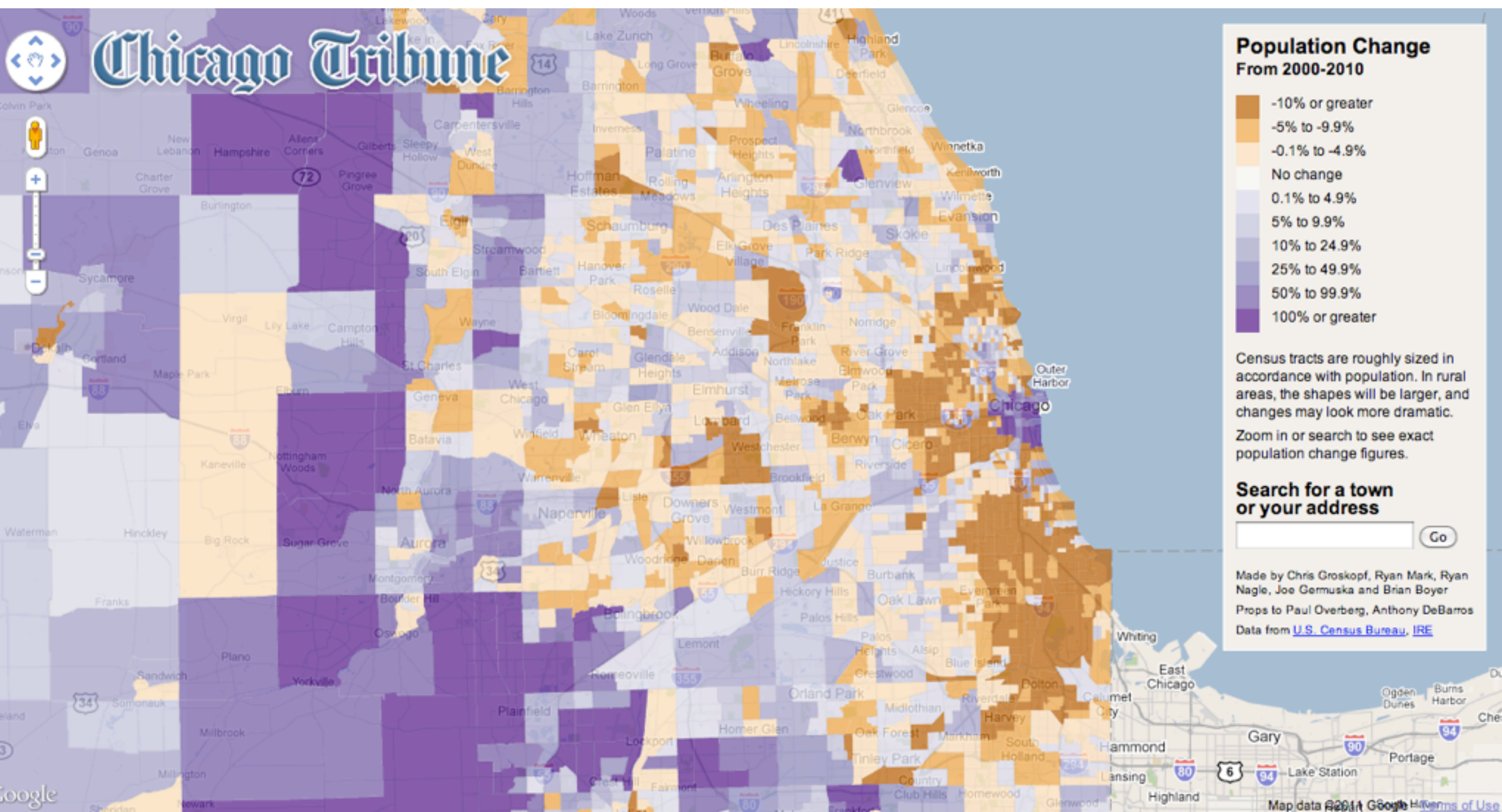
should be scalable, tunable by designers

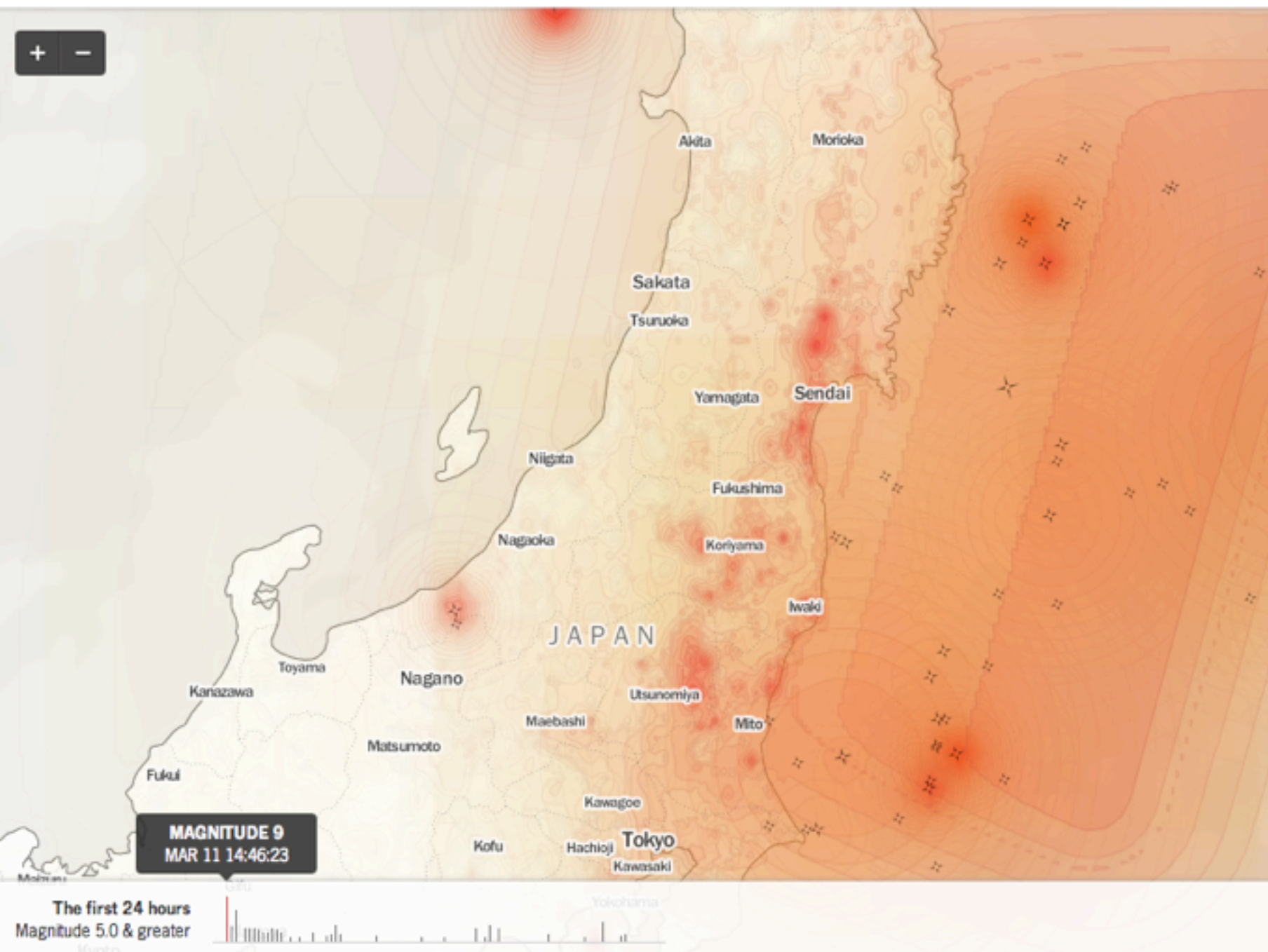
highly specific interaction for storytelling



<http://maps.ed.gov/>







## Helping lead an effective response and recovery.

On March 11, Japan was struck by a 9.0 earthquake and subsequent tsunami with waves over 30 feet. This was the most powerful earthquake to ever hit Japan and one of the top five largest in the world ever recorded. The disaster left thousands dead and missing. Over 170,000 people continue to seek shelter in evacuation centers across 17 prefectures.

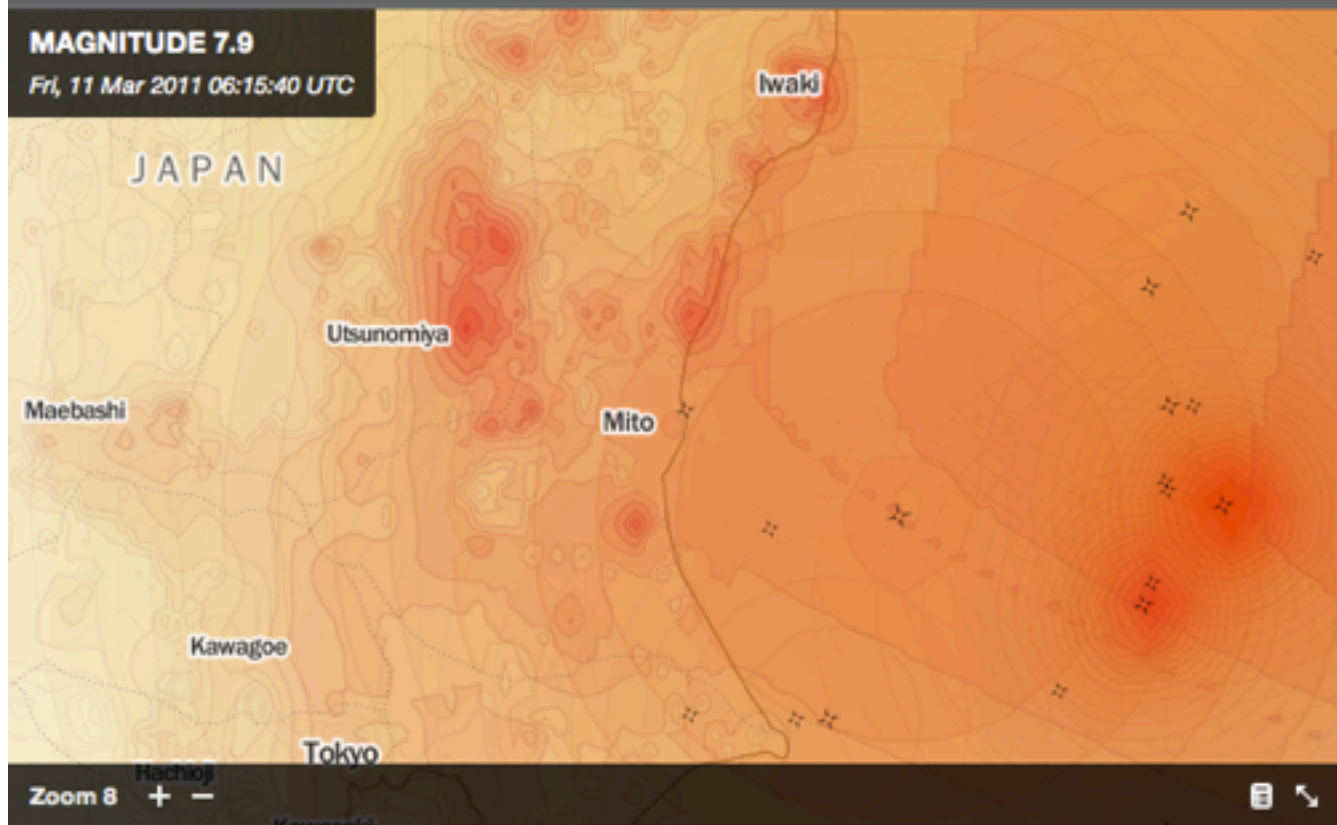
Companies have pledged more than \$300 million in cash and in-kind donations to the response efforts in Japan

**LEARN MORE »**



# MAGNITUDE 7.9

Fri, 11 Mar 2011 06:15:40 UTC

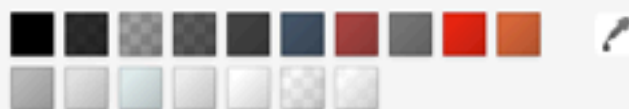


Zoom 8 + -

## Layers

- #epicenters
- #country-label
- #admin-1-labels
- #city
- #admin-1
- #c0001xgp.quake.m9
- #c0001zv3.quake

## Colors



## Fonts

## style.mss

## borders.mss

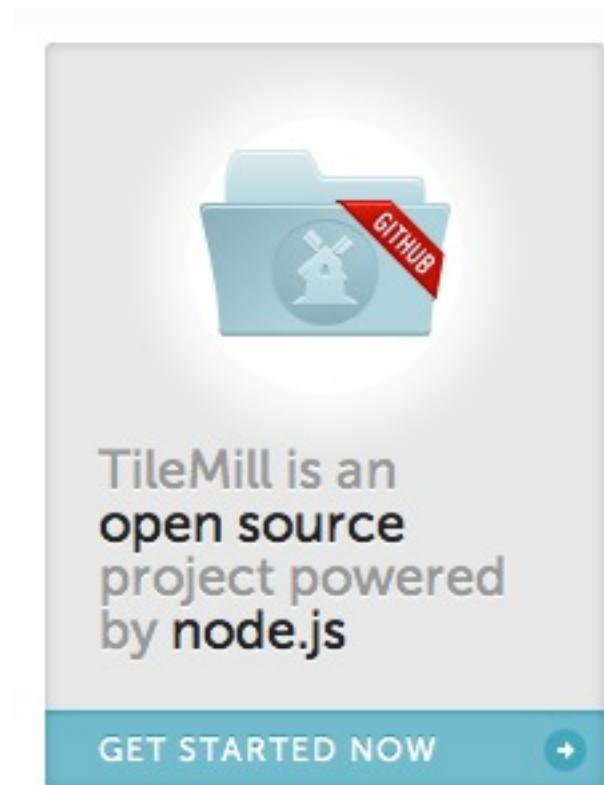
## labels.mss

## quakes.mss

```

11 @water: #fff;
12
13 Map {
14   background-color: @water;
15 }
16
17 #epicenters {
18   point-allow-overlap: true;
19   point-file: url(http://gis-data.s3.amazonaws.com/project/bclc-japan/c
20   [MAGNITUDE>=6][MAGNITUDE<7] {
21     point-file: url(http://gis-data.s3.amazonaws.com/project/bclc-japan/
22   }
23   [MAGNITUDE>=7][MAGNITUDE<8] {
24     point-file: url(http://gis-data.s3.amazonaws.com/project/bclc-japan/
25   }
26   [MAGNITUDE>=8][MAGNITUDE<9] {
27     point-file: url(http://gis-data.s3.amazonaws.com/project/bclc-japan/
28   }
29   [MAGNITUDE>=9][MAGNITUDE<10] {
30     point-file: url(http://gis-data.s3.amazonaws.com/project/bclc-japan/
31   }
32 }
33
34 #water_big[zoom>=4][zoom<=6],
35 #water_med[zoom>=7][zoom<=9],
36 #water_all[zoom>=9] {
37   polygon-fill: @water;
38 }
39

```



<https://github.com/mapbox/tilemill>



MapBox





A design environment for making beautiful, and fast, maps

The design side of “GIS” done right

Browser web app

Runs on your desktop (for now)

- OSX/Linux
- Windows?

Javascript + Some C/C++ bits (NodeJS)

BSD Licensed

Early Development funded as part of Knight News Challenge.



## Code Details

**mapnik** provides map rendering.

**carto** provides MSS-to-Mapnik XML map style compiling.

**tilelive.js** provides high-speed tile-rendering.

**node.js** provides evented server-side javascript.

**express** provides a robust HTTP web server.

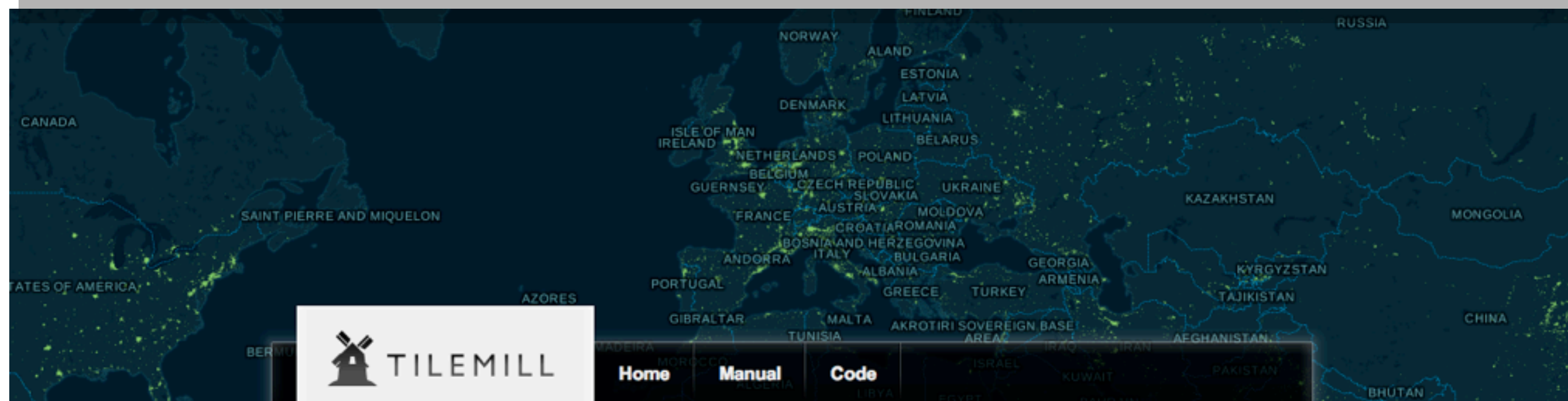
**backbone** provides a client-server MVC framework.

**modestmaps** provides a tile-based map UI.

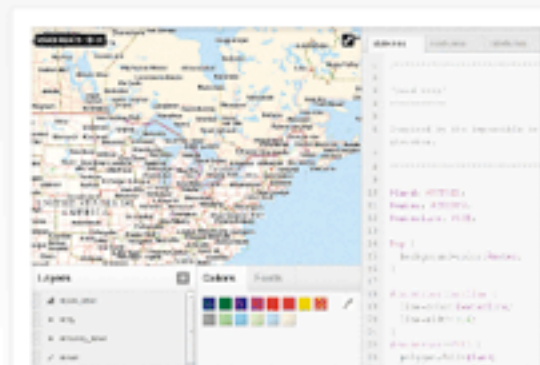
**codemirror** provides in-browser code editing







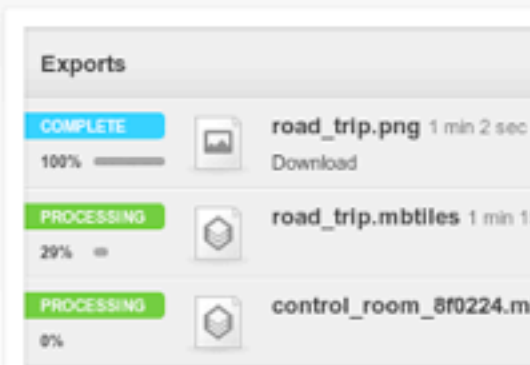
TileMill is a modern map design studio powered by open source technology.



Create maps and instantly preview changes in a fast, efficient map design interface.



The Carto styling language makes map design easy for anyone familiar with CSS.



Export maps as images, PDFs, or render tilesets to the portable MBTiles format.

## Features

- Access datasources on the local filesystem or through Amazon S3
- Manage map layers with file-based datasources (shapefiles, rasters)
- Edit `carto` stylesheets directly in the browser
- Edit `carto` stylesheets with a custom editor like `Atom` in Minimal mode

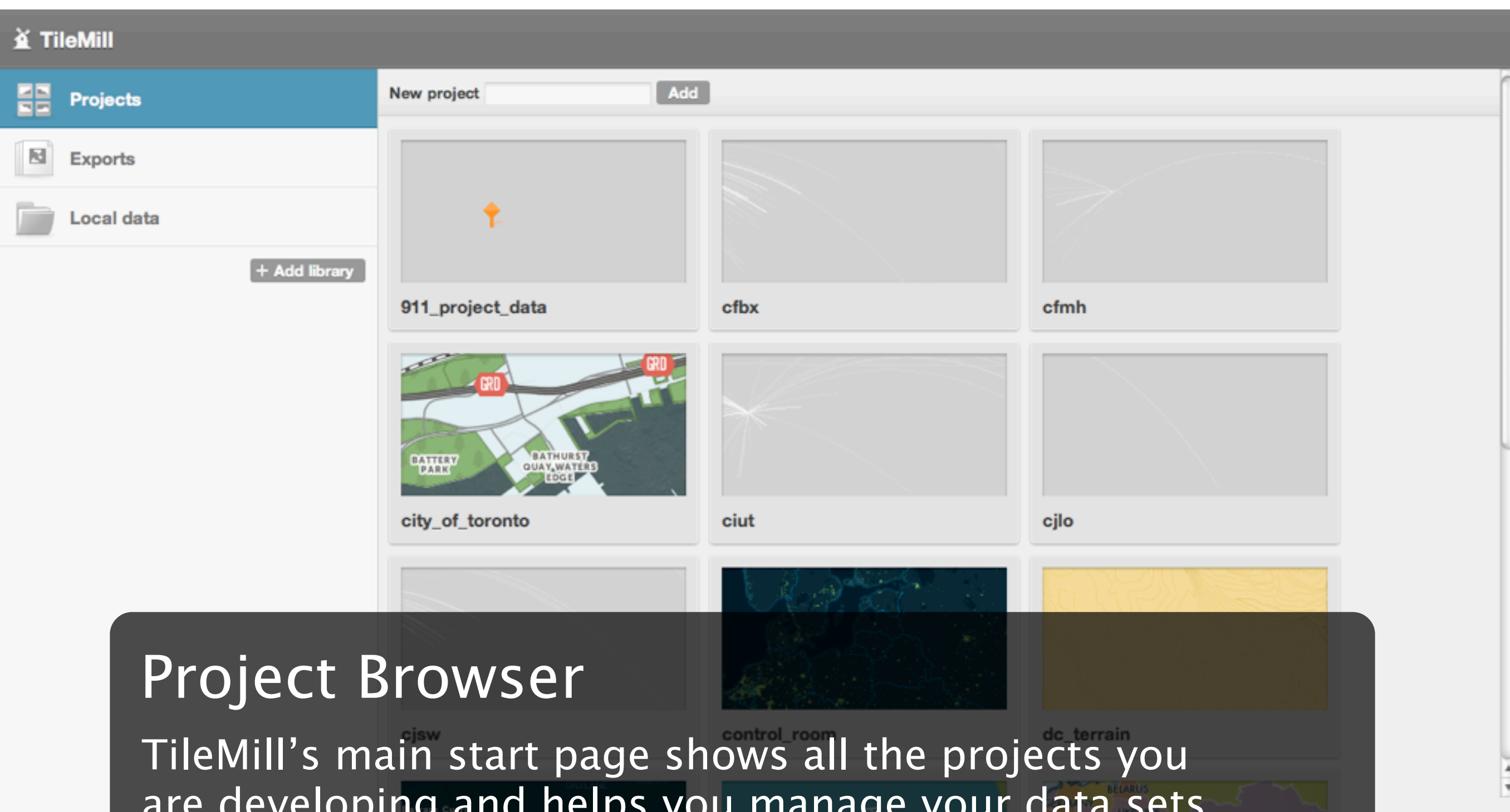


Download latest release  
**TileMill 0.3.3**



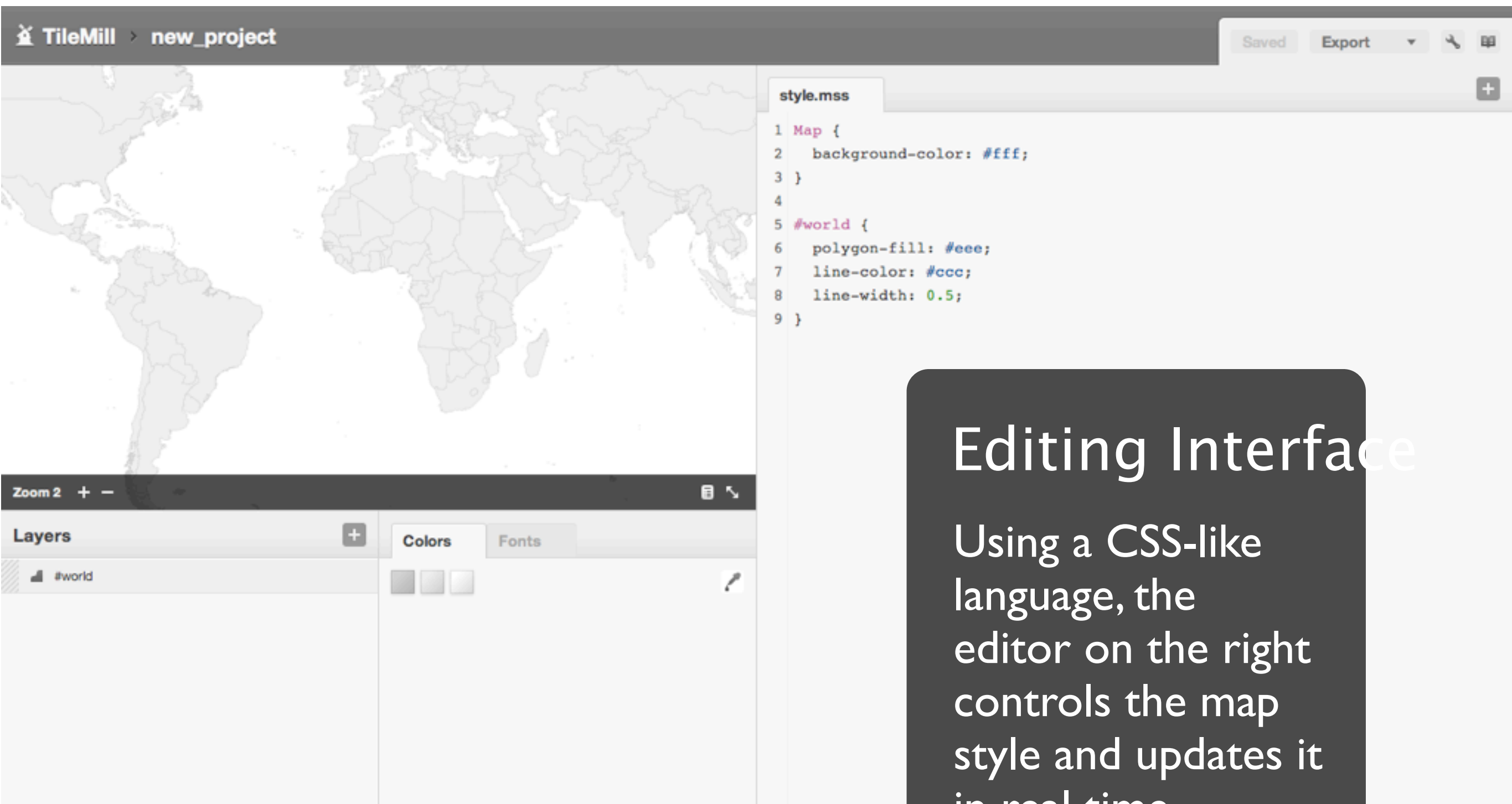
Watch a demo video.





# Project Browser

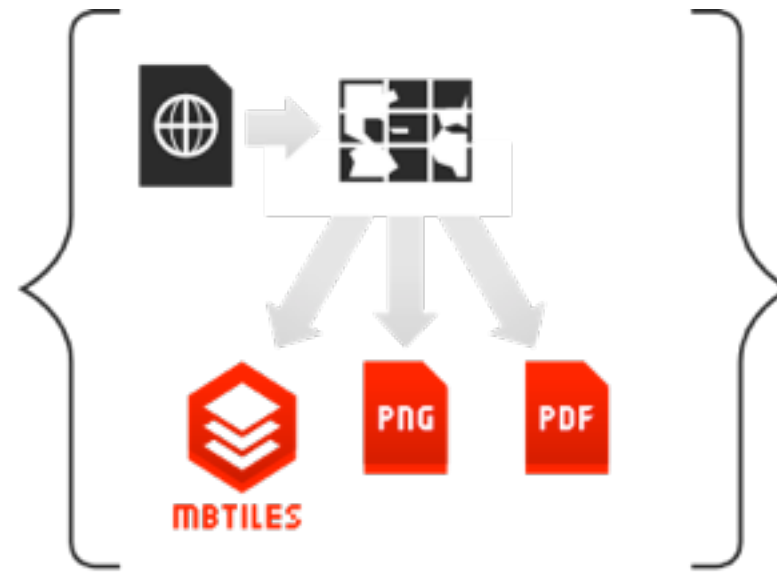
TileMill's main start page shows all the projects you are developing and helps you manage your data sets and quickly start a new project.



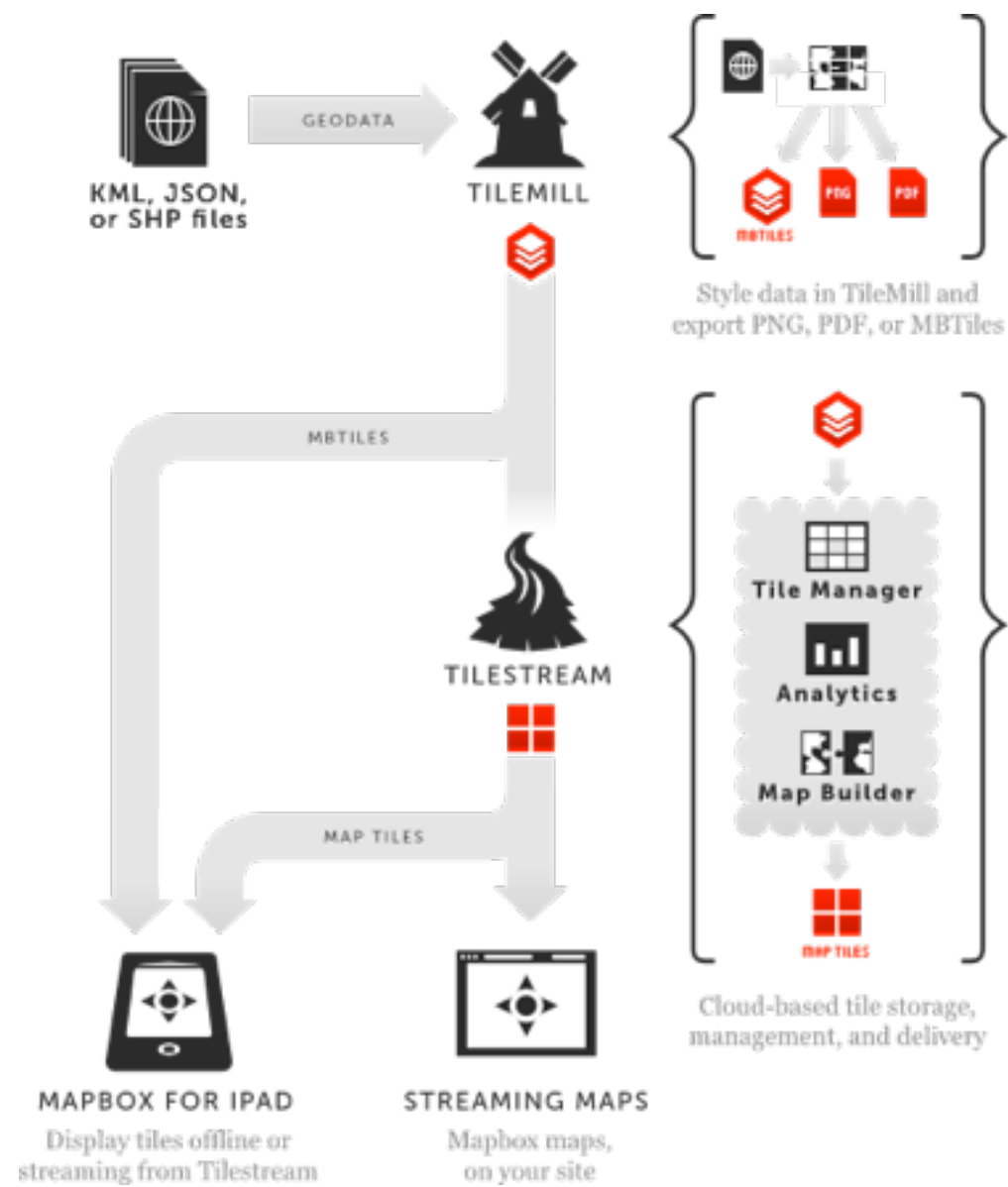
## Editing Interface

Using a CSS-like language, the editor on the right controls the map style and updates it in real time.





Style data in TileMill and  
export PNG, PDF, or MBTiles



# Links

TileMill

[tilemill.com](http://tilemill.com)

[github.com/mapbox/tilemill](https://github.com/mapbox/tilemill)

Documentation

[support.mapbox.com/kb](https://support.mapbox.com/kb)

Wax

<http://mapbox.github.com/wax/manual/index.html>

[github.com/mapbox/wax](https://github.com/mapbox/wax)

MBTile Spec

<http://mbtiles.org/>



**Actual Demo...**



TILEMILL

[twitter.com/springmeyer](https://twitter.com/springmeyer)