AnOl, GeoExt, MapStore 2, ngeo, ...

An overview of extensions, plugins, libraries & frameworks around OpenLayers

Marc Jansen / @selectoid

2017-08-16, FOSS4G, Boston, MA, USA

Outline

- Disclaimer
- About …
- Motivation
- Examples galore
- Conclusion

Disclaimer

Disclaimer

- Overview … but likely incomplete
- Comparison? Apples and oranges!
- I am partly involved in development of some projects
- I'll try to be unbiased
- Vanilla JS vs. JavaScript fatigue vs. reinventing the wheel
- Non-scientific definitions

Image: Nature morte aux pommes et aux oranges, Paul Cézanne, Public Domain

About ...

Marc Jansen

jansen@terrestris.de
@marcjansen
@selectoid

- Technical lead @ terrestris
- Core developer OpenLayers
- Core developer / PSC member GeoExt
- Author "OpenLayers" (German)
- Speaker & workshop instructor national & international
- OSGeo Foundation Charter Member

terrestris

@terrestris
@terrestrisde

- terrestris.de
- Top-notch OpenSource GIS from Bonn, Germany
- Development, projects, support & teaching
- Consulting, implementation, planning & maintenance

...this talk

extension, plugin, add-on
Focused addition, new feature
library
multiple different additions, collection
framework
often built on top of 3rd party software, usually comes with a paradigm / structure / pattern

Sometimes the boundaries are blurred and there is a fluid transition

Motivation

Why?

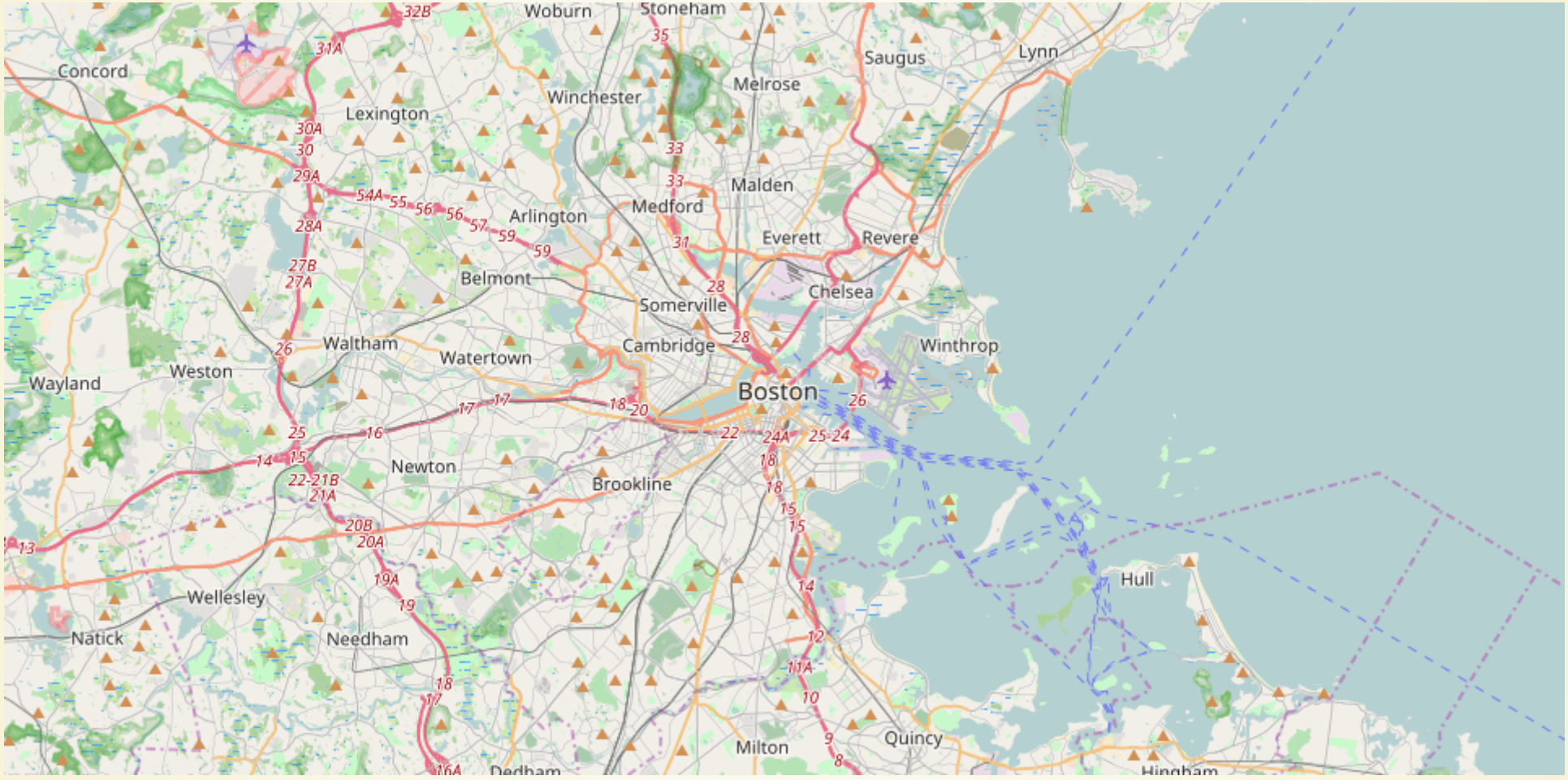
- OpenLayers doesn't have everything
- What else is there on the market?
- There is a lot out there!
- Impact of decisions for own projects

Examples galore

Layerswitcher

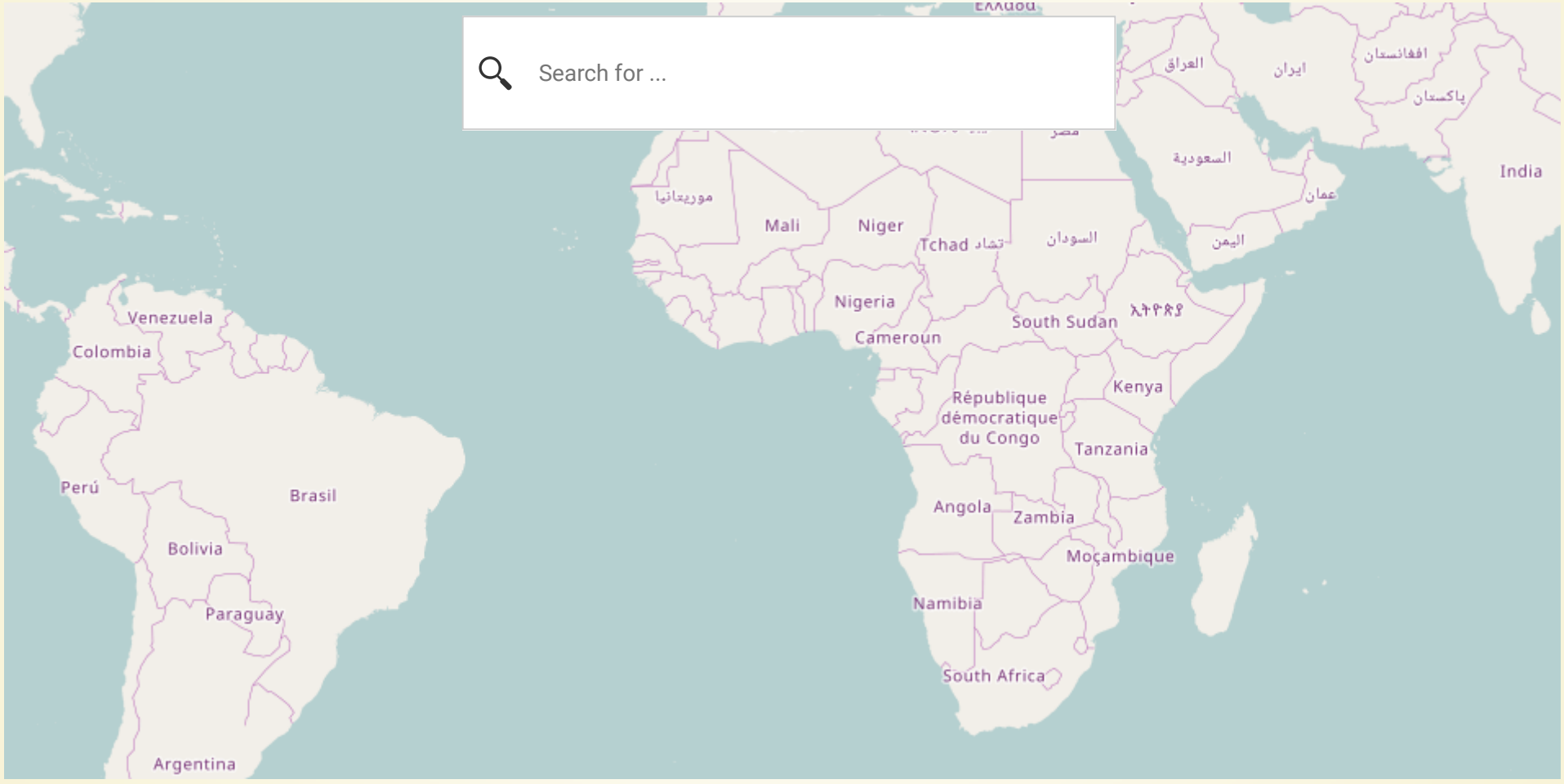
ol3-layerswitcher by Matt Walker: https://github.com/walkermatt/ol3-layerswitcher

Popups



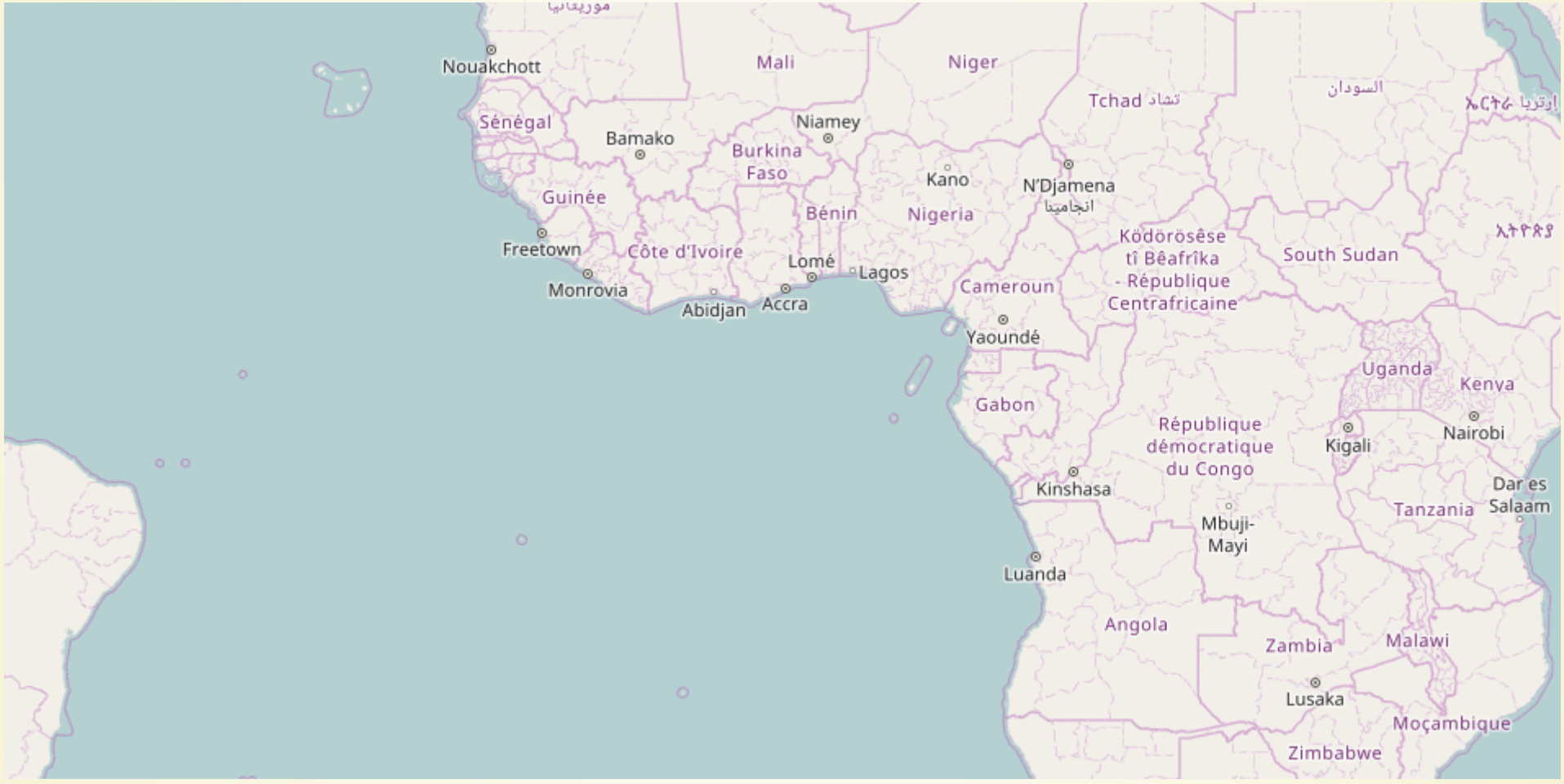
ol3-popup by Matt Walker: https://github.com/walkermatt/ol3-popup

Geocoding



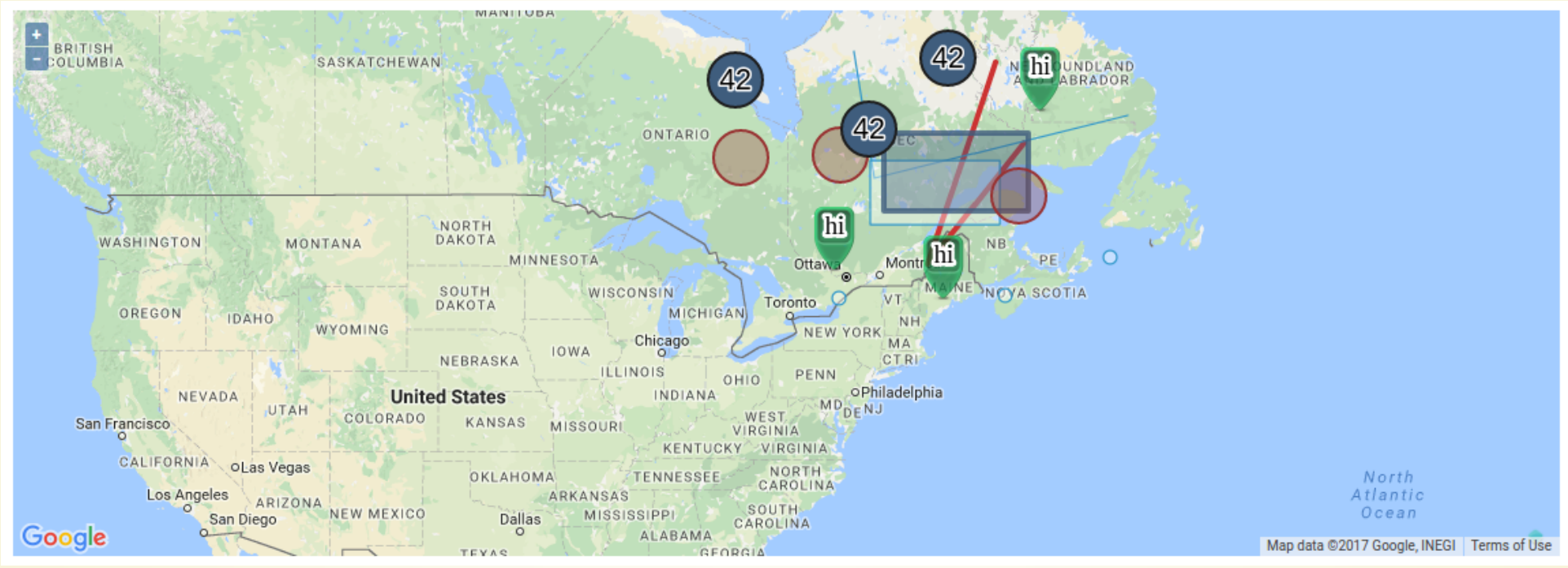
ol-geocoder by Jonatas Walker: https://github.com/jonataswalker/ol-geocoder

Contextmenu



ol-contextmenu by Jonatas Walker: https://github.com/jonataswalker/ol3-contextmenu

Google



`ol3-google-maps` by Mapgears: https://github.com/mapgears/ol3-google-maps

Concept

ALWAYS WANTING
MORE, MORE, MORE!

There is more, e.g.

- ol3-projection-switcher, by National Snow and Ice Data Center,
- GWT-OpenLayers, by Tino Desjardins
- Wrapper for Vaadin 8, (mostly) by Martin Stypinski
- Integration into Drupal and WordPress
- See also https://openlayers.org/3rd-party/
  (PRs accepted to become part of this list)

ol-ext

OL3-ext: Extensions for OpenLayers 3

Search

Fork me on GitHub

Cool extensions for OpenLayers 3 (OL3).

If you like this, you may like OL3-AnimatedCluster

Styles

Font style

(map.style.font.html)

Draw points using an iconic font (font Awesome) gives you scalable vector icons that can instantly be customized (form, size, color, drop shadow) using attributes..

style, vector, font, fontawesome, icon, maki

Photo style

(map.style.photo.html)

The ol.style.Photo is an image style to show photos or images on a map. The photos are drawn in a box and can be anchored.

style, vector, photo

Statistic charts style

(map.style.chart.html)

The ol.style.Chart is an image style to draw statistical graphics (bar, donut or

ol3-ext by Jean-Marc Viglino: https://github.com/Viglino/ol3-ext & https://viglino.github.io/ol3-ext/

OL3-ext: style textPath

Fork me on GitHub

The *ol.vector.setTextPathStyle()* is a function to draw text along a linear feature (ol.geom.lineString) on postcompose.
The function is called as the ol.vector.setStyle() function but rendered in a postcompose frame.
An *ol.style.TextPath* is defined but *ol.style.Text* can be used instead.
You can specify a *minResolution* to prevent drawing beneath this resolution.

- The *rotateWithView* option is used to render readable text (the function tries to display text upward).
- The *textOverflow* option determines how overflowed content that is not displayed is signaled to users.
- If the length of the linestring (in pixel) is less than *minWidth*, text won't be displayed.

The example uses an ol.geom.LineString.cspline to smooth support and avoid letters collision.

Options:

textAlign: center ▾
textBaseline: middle ▾
textOverflow: hidden ▾
minWidth: 0 px
☐ rotateWithView (readable)
☐ smooth support

minZoom: all ▾ (~ maxResolution)

But: https://github.com/openlayers/openlayers/pull/7022

ol-cesium

Enable/disable

ol-cesium by the ol-cesium developers: http://openlayers.org/ol-cesium/
Some cesium talks during the conference

GeoExt

Feature Grid

	Name	Population
	Hamburg	1,700,000
	Frankfurt / …	700,000
	Berlin	3,500,000
	München	1,400,000

Feature Grid with selection

	Name
	Dortmund
	Köln
	Kaiserslautern
	Bonn
	Stuttgart

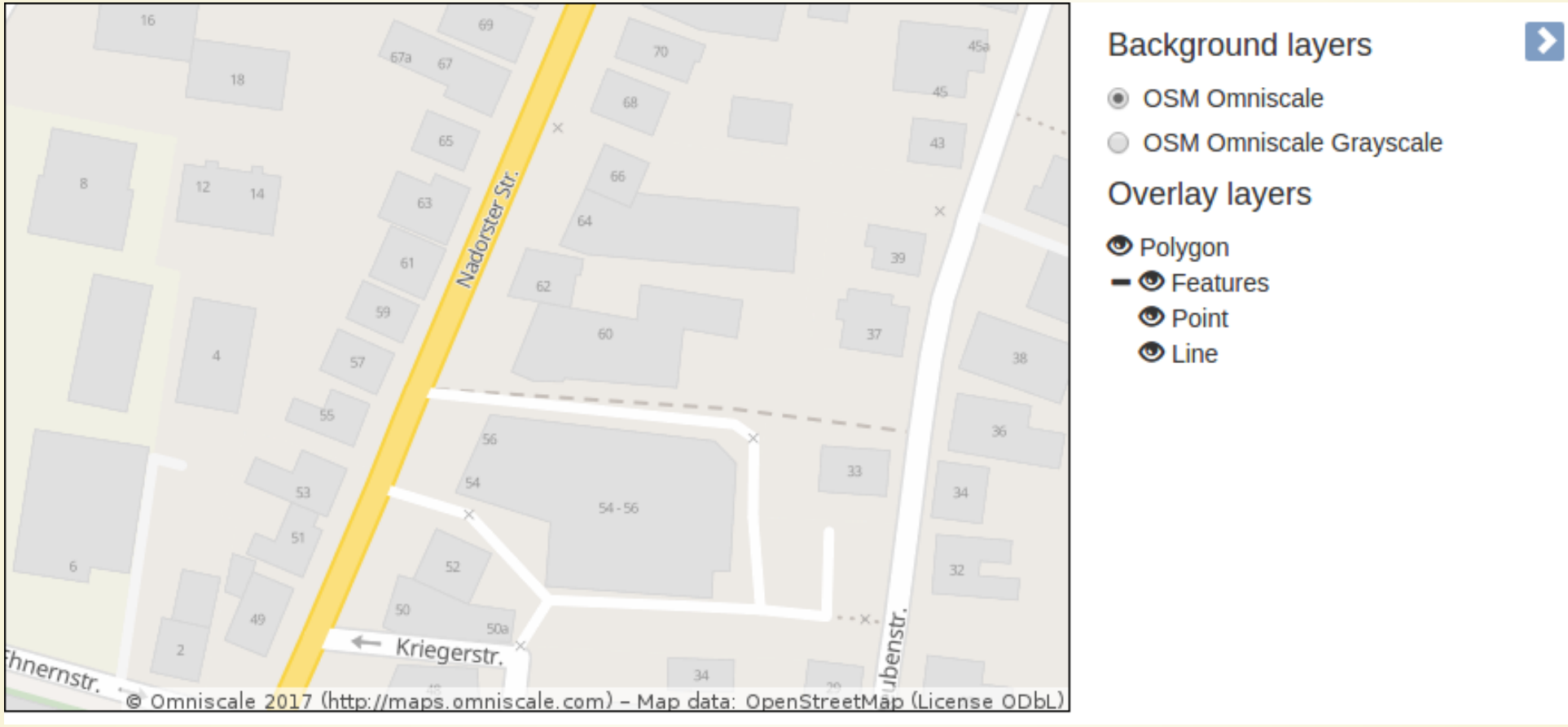
Description

This example shows how to display features in grids.

The grid on the left side is created by passing an OpenLayers collection (ol.Collection) with feature objects (ol.Feature)
The grid on the right side is created from an existing vector layer and also highlights the selected feature in the grid on the map.

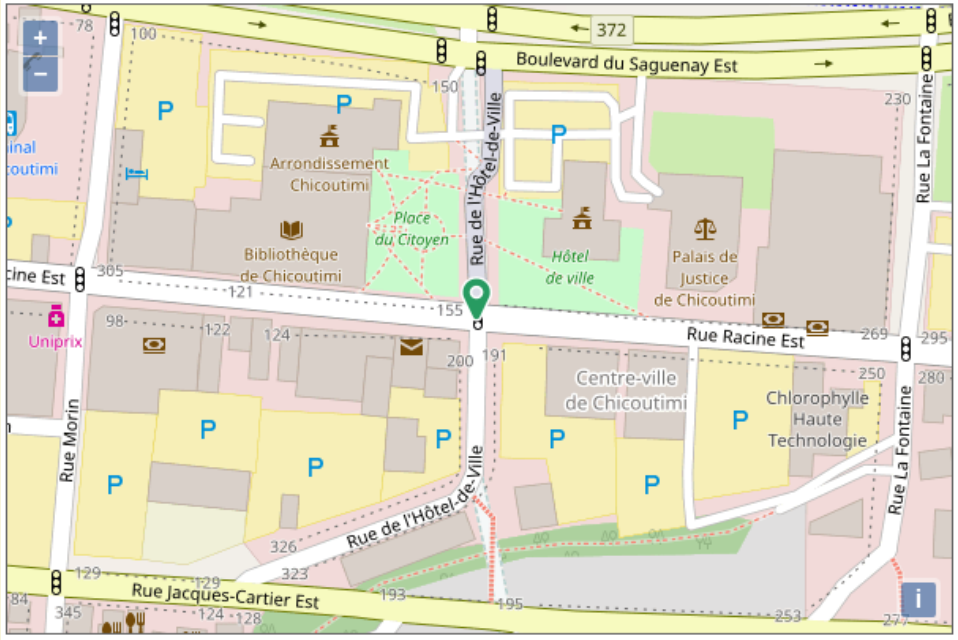
Have a look at grid.js to see how this is done.

AnOl



AnOl by Omniscale: https://github.com/omniscale/anol

ngeo



This example shows how to use the `ngeo-googlestreetview` component.

☑ GoogleStreetView ☐ Dummy tool

ngeo by Camptocamp: https://github.com/camptocamp/ngeo
talk @ 11:30 AM today, this room

MapStore 2

MapStore 2 by GeoSolutions: https://github.com/geosolutions-it/MapStore2 & http://mapstore2.geo-solutions.it/mapstore/docs/
talk @ 5:00 PM today, this room

Boundless SDK

BOUNDLESS
SDK

Boundless SDK by Boundless: *https://github.com/boundlessgeo/sdk* & *http://boundlessgeo.github.io/sdk-apps/index.html*

ALWAYS WANTING
MORE, MORE, MORE!

More?

- Integrations with your framework of choice?
- Chances are good!
- e.g. Ember.js / Meteor
- Some not-quite-up-to-date
- Some are more proof of concepts / examples

Conclusion

Conclusion

- There is a lot!
- A lot quality-wise, too!
- Vanilla JS vs. JavaScript fatigue vs. reinventing the wheel
- Can OpenLayers make it easier to create plugins etc.?
- Thanks to everyone involved in building *sth.* with OpenLayers

Thank you

Questions & comments?

Imprint

Imprint

Author

Marc Jansen
terrestris GmbH & Co. KG
Kölnstr. 99, 53111 Bonn
Germany
jansen@terrestris.de

License

The slides of this talk are licensed under CC BY-SA 4.0.

Slides, PDF version, git repository