



# 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



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- 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](https://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?

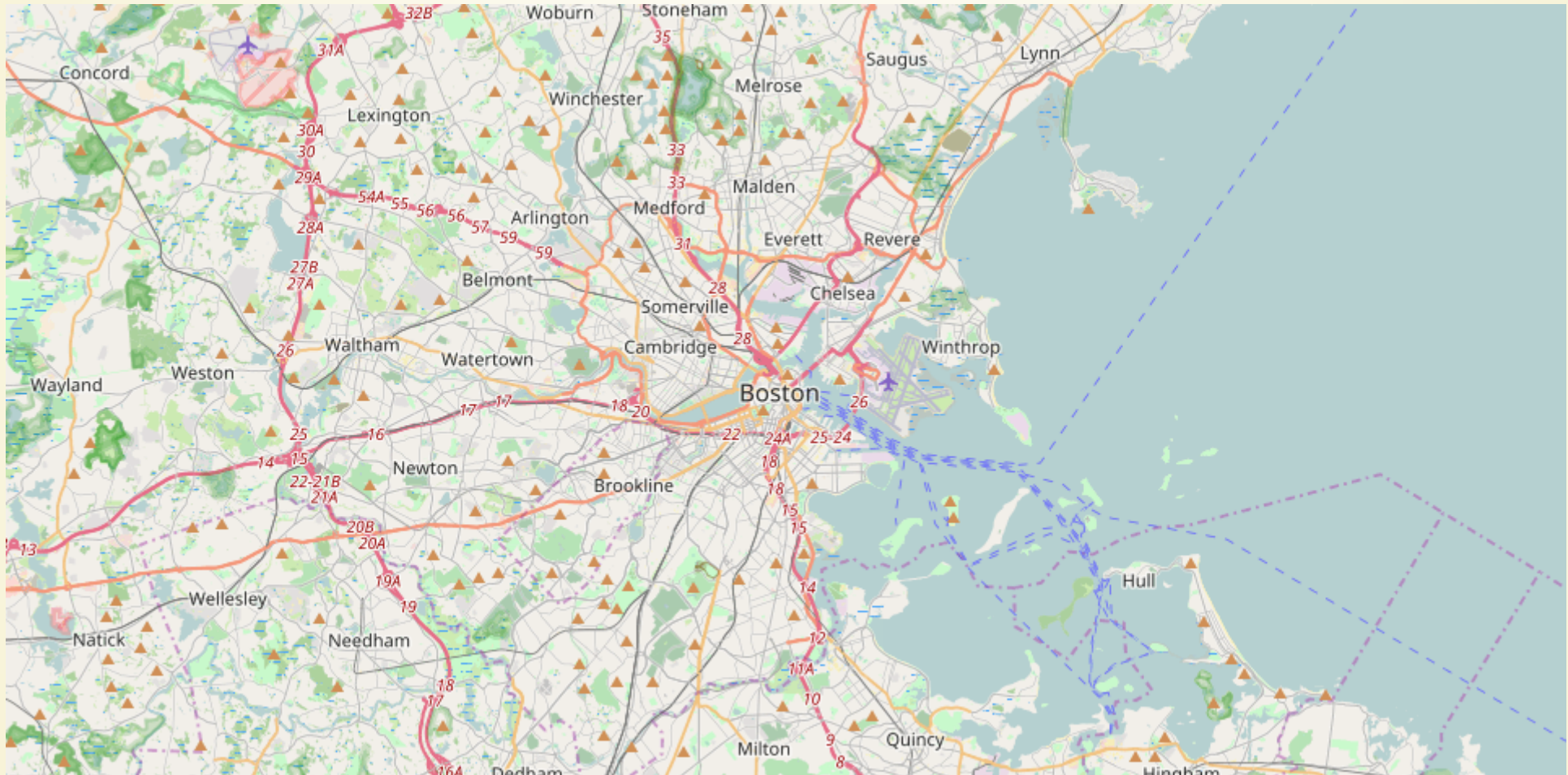
- OpenLayers doesn't have everything
- What else is there on the market?
- There is a lot out there!
- Impact of decisions for own projects

Examples  
galore

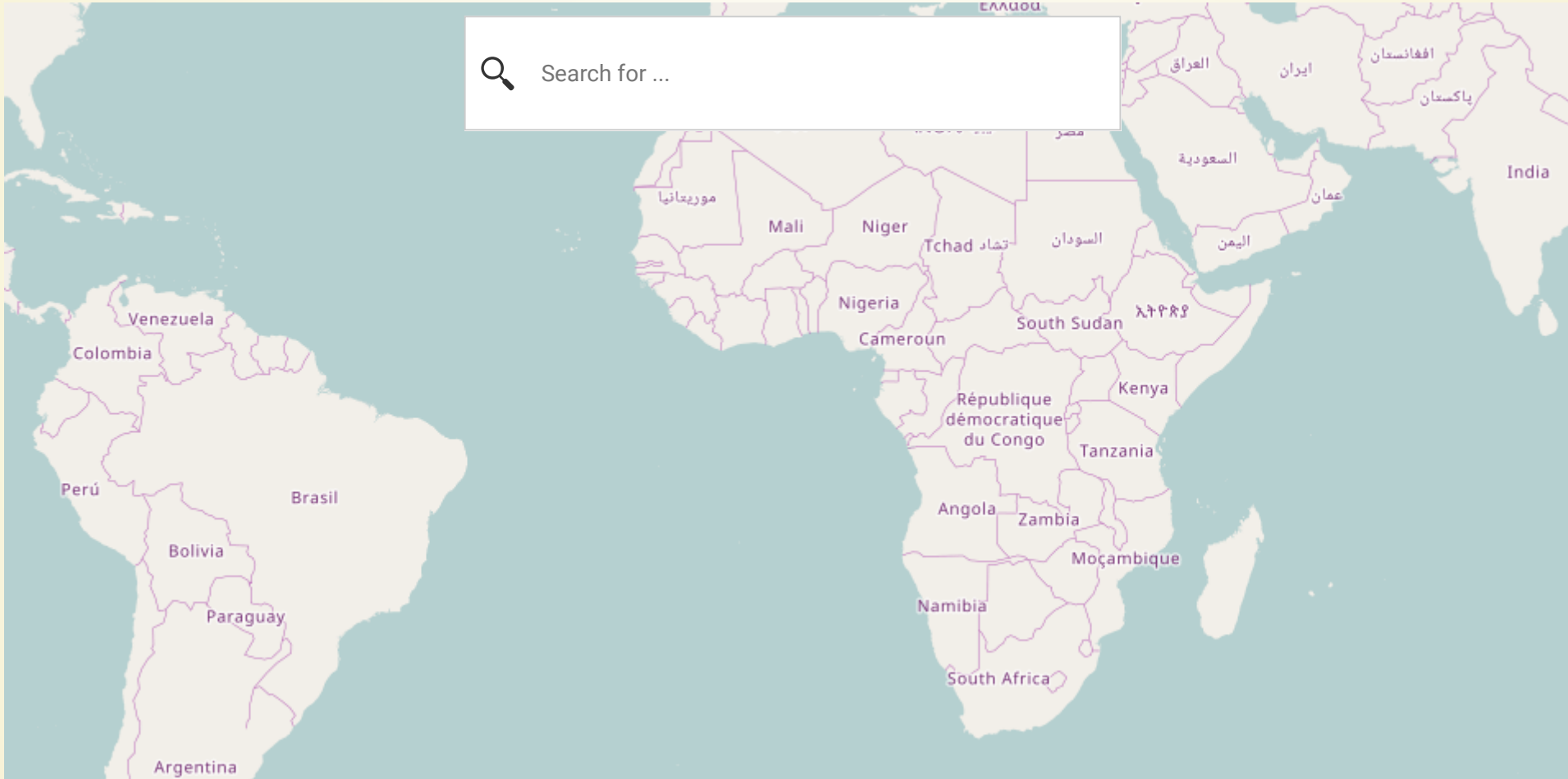
# Layerswitcher



# Popups

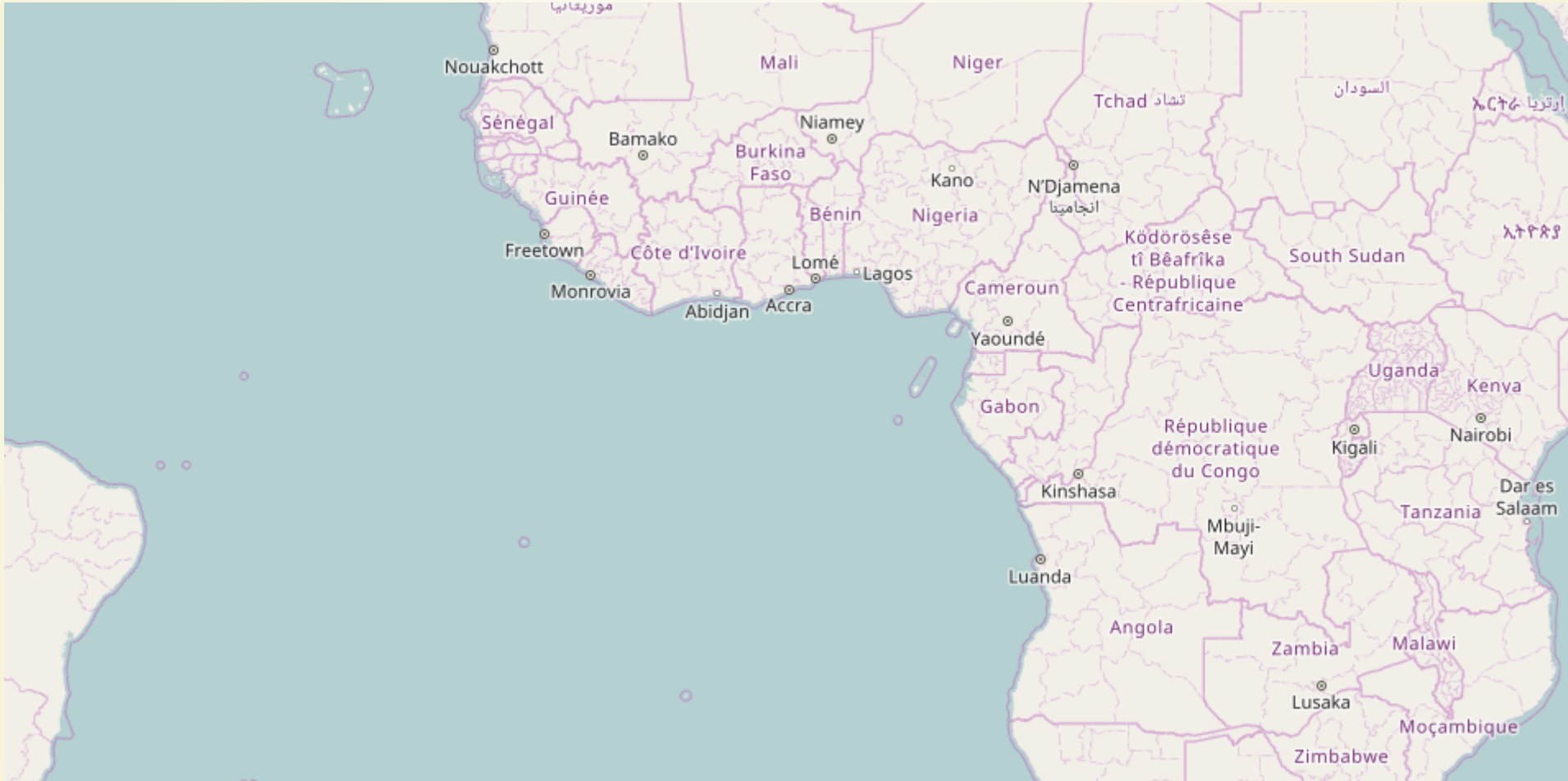


# Geocoding



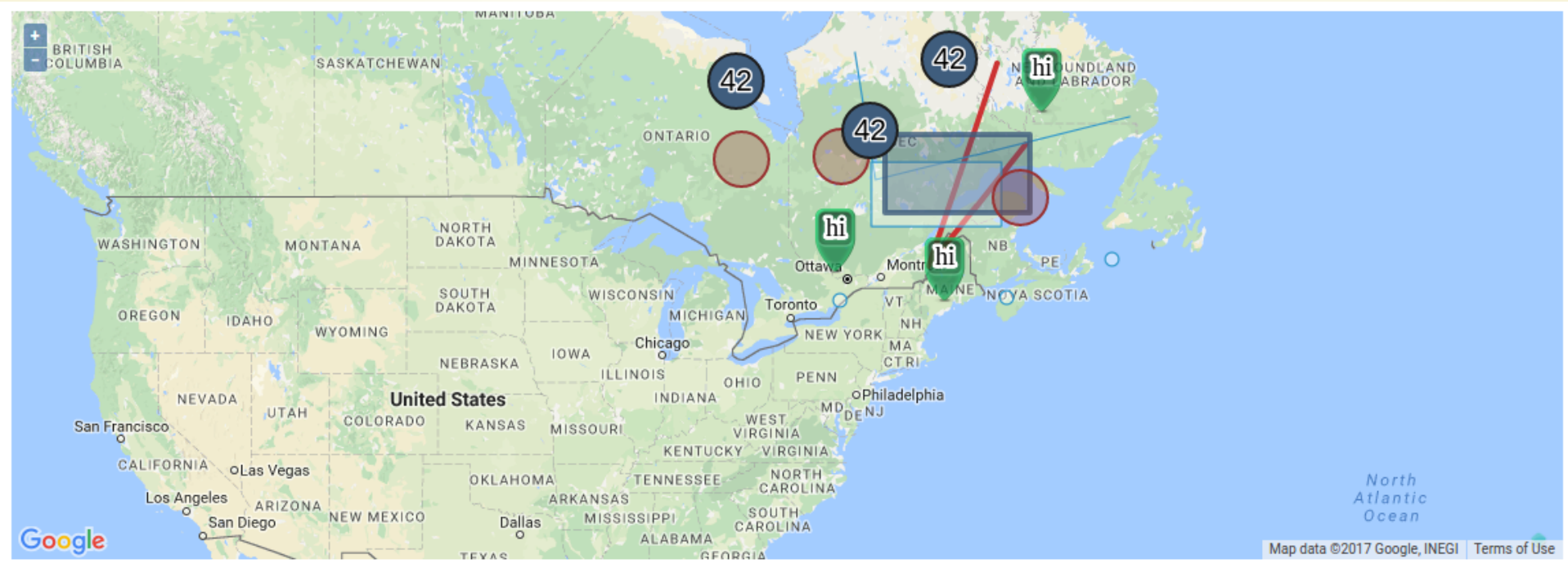


# Contextmenu





# 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

Fork me on GitHub

Cool extensions for OpenLayers 3 (OL3).

If you like this, you may like [OL3-AnimatedCluster](#)

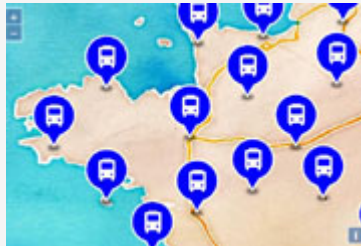
## Styles

### 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: 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)

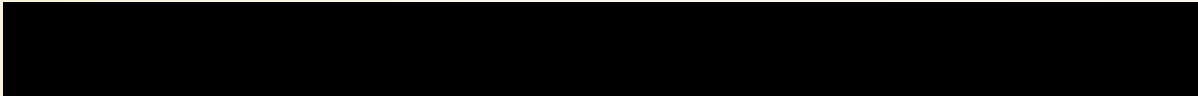
☐ smooth support

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

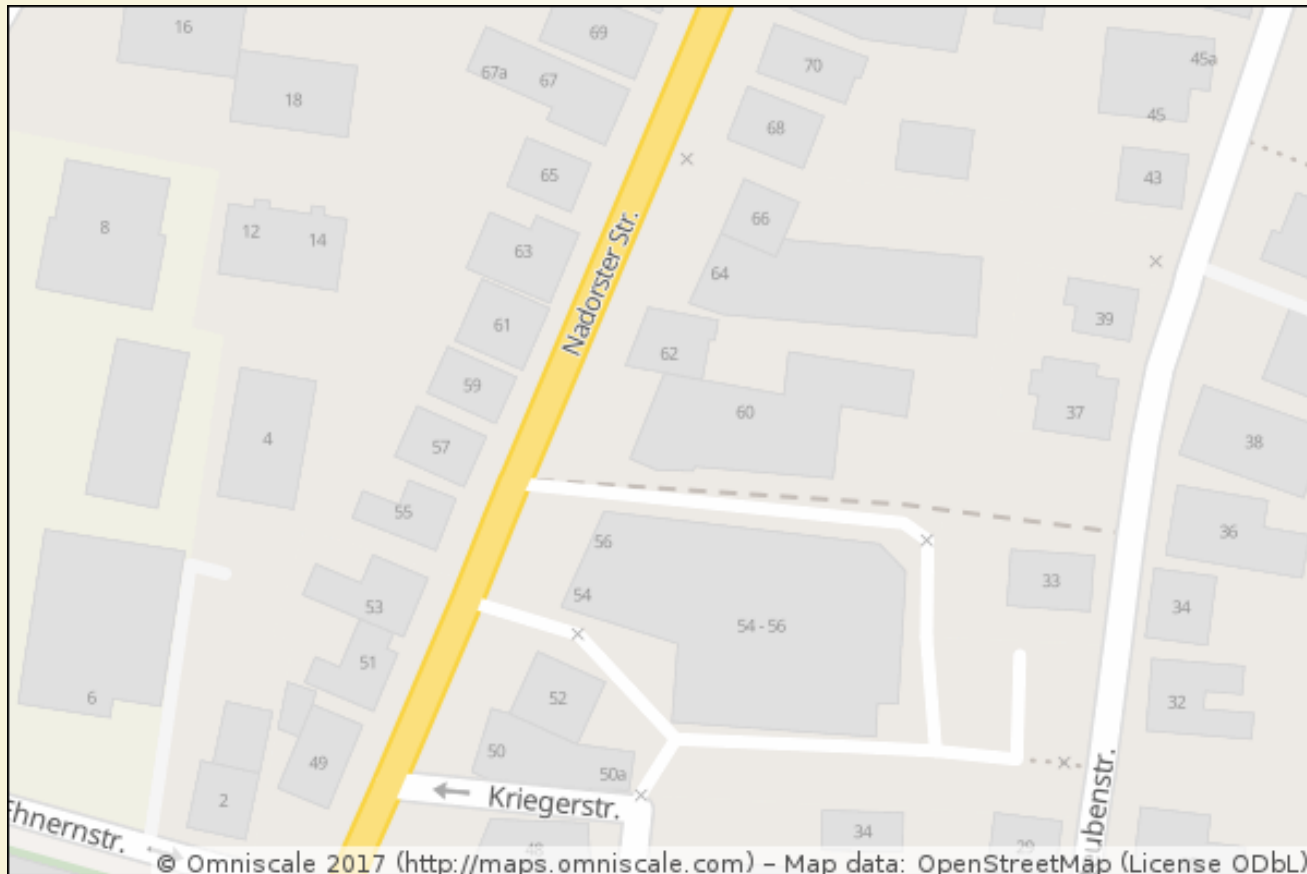
This example shows how to display features in grids.

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.

# An01



## Background layers

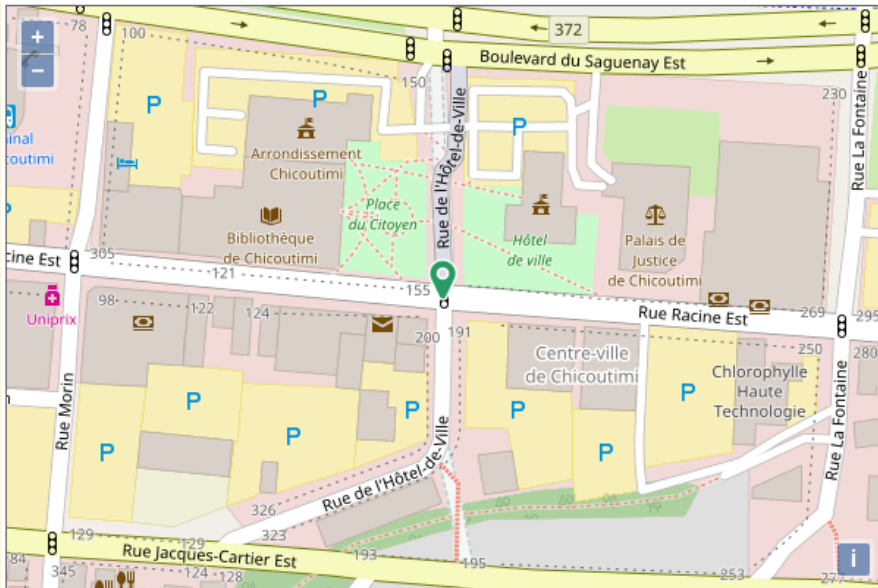
- ☒ OSM Omniscache
- ☐ OSM Omniscache Grayscale

## Overlay layers

- ☒ Polygon
- ☒ Features
- ☒ Point
- ☒ Line



# 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



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

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Questions &  
comments?

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Imprint

# Imprint

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**Slides, PDF version, git repository**