

OPENLAYERS 3

TOWARDS VERSION 3.0.0 FINAL



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MARC JANSEN



- Developer and project manager
- Core developer of
 - OpenLayers / ol3
 - GeoExt / GeoExt2 / GXM
 - SHOGun
- PSC member of GeoExt & SHOGun
- Author 'OpenLayers' (German)
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- terrestris.de
- OpenSource GIS from Bonn, Germany
- Development, Projects & Support/Teaching
- Consulting, Planning, Implementation & Maintenance

ABOUT THIS TALK

- Highlights
- Examples
- Live-Demos
- Code-Snippets

OPENLAYERS
NOW AND
THEN

OPENLAYERS

- Very widely used library to build interactive web maps.
- v. 2.0 ⇒ nearly **8 years old**

```
> git show 48445f08784810d82c741e92f297e2a51e8ef964  
commit 48445f08784810d82c741e92f297e2a51e8ef964  
Author: crschmidt <crschmidt@crschmidt.net>  
Date: Fri Aug 25 17:55:07 2006 +0000
```

```
And I said "Ship it, or I will want to kill the next reporter of an IE bug".  
And so it was done.
```

```
git-svn-id: http://svn.openlayers.org/tags/openlayers/release-2.0@1368
```

OPENLAYERS

- 13 Point-releases
- > 6.000 commits, ~100 contributors
- Feature rich:
 - Layertypes,
 - Controls,
 - Formats,
 - Mobile ...



BUT...

- ~8-year-old architecture
- Modern Web-Technologies
- Moderne Browser



...THEREFORE...

WE WANT A
NEW
OPENLAYERS!

ol3

- in development for ~ 2 years
- partly crowd-funded
- up to now 4 alpha, 5 beta & 2 gamma releases
- ol3js.org
- [Google-Group / mailinglist](#)
- [Github repository](#)

WHAT'S NEW?

- de facto: **Everything**
- Complete *rewrite-from-scratch*
- Tests and data have been ported over

WHAT'S NEW?

- Google Closure Library (Gmail, Google Maps)
- Google Closure Compiler
- jsdoc3
- WebGL
- *Mobile first / from start*
- Styling only via CSS
- build.py

CLOSURE COMPILER

```
ol.format.XMLFeature.prototype.readFeatures = function(source) {  
  if (ol.xml.isDocument(source)) {  
    return this.readFeaturesFromDocument(/** @type {Document} */ (source));  
  } else if (ol.xml.isNode(source)) {  
    return this.readFeaturesFromNode(/** @type {Node} */ (source));  
  } else if (goog.isString(source)) {  
    var doc = ol.xml.load(source);  
    return this.readFeaturesFromDocument(doc);  
  } else {  
    goog.asserts.fail();  
    return [];  
  }  
};
```

... compiles to:

```
l.Ga=function(a){return Kn(a)?fo(this,a):Nn(a)?this.$b(a):la(a)?(a=Rn(a),fo(this,a)):[]};
```



tmcw commented

7 months ago



True, Closure is a big buyin, but probably worth it.

Yes, and yes

WHAT STAYS THE SAME?

- Usable
- Modern
- Fast
- Extendable

WHAT STAYS THE SAME?

- Understandable
- Conforming to standards
- Cross-Anything
- Well documented
- Reliable

EXAMPLES

HELLO, WELT



OpenLayers 3 Examples (./)

Production



CODE

```
var map = new ol.Map({
  layers: [
    new ol.layer.Tile({
      source: new ol.source.OSM()
    })
  ],
  target: 'map',
  view: new ol.View({
    center: [0, 0],
    zoom: 2
  })
});
```

OPENLAYERS 2.X

- **1** × OpenLayers.Map
 - **n** × OpenLayers.Layer.Xxx
 - **n** × OpenLayers.Control.Yyy

o|3

- **1** × ol.Map
 - **1** × ol.View
 - **n** × ol.interaction.Zzz
 - **n** × ol.control.Yyy
 - **n** × ol.layer.Xxx
 - **1** × ol.source.Xxx

50.000 COORDINATES



CODE

```
var vectorSource = new ol.source.IGC({
  urls: [
    'data/igc/ClementLatour.igc' // etc.
  ]
});

var styleFunction = function(feature, resolution) {
  // ...
  return styleArray;
};

var layer = new ol.layer.Vector({
  source: vectorSource,
  styleFunction: styleFunction
});
```


DRAG & DROP / FORMATS



OpenLayers 3 Examples (./)

Production



HIGHLIGHTS

PERFORMANCE REPLAY-API



OpenLayers 3 Examples (./)

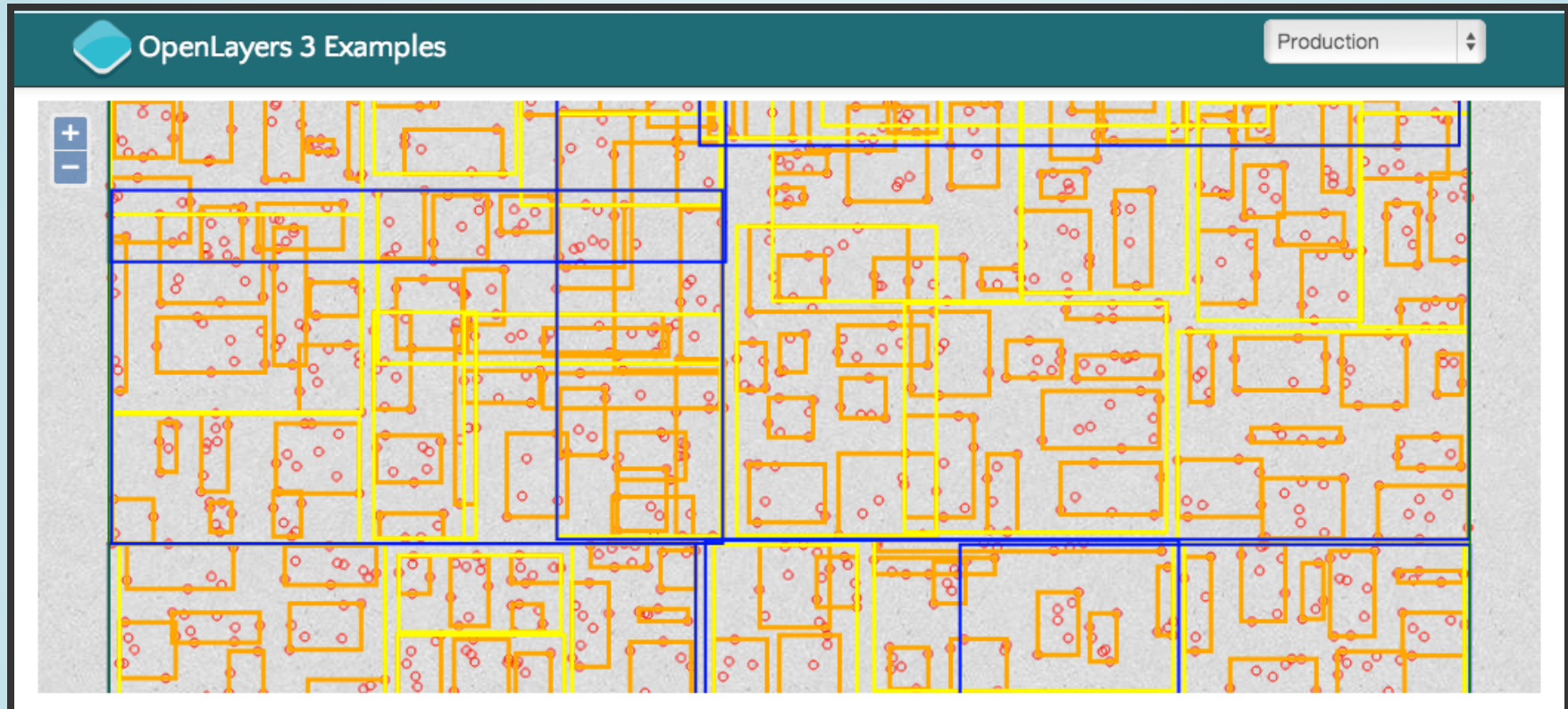
Production



786.433

POINTS!

PERFORMANCE R-TREE

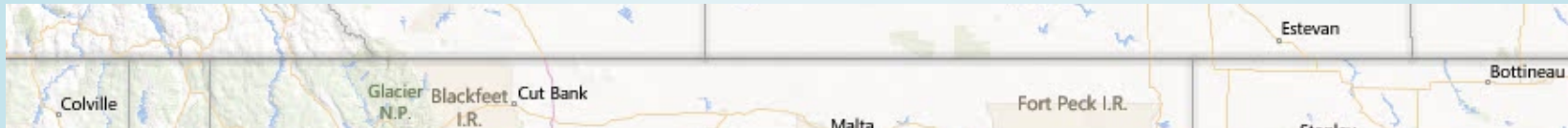


<https://github.com/mourner/rbush>

PRE-/POSTCOMPOSE API

 OpenLayers 3 Examples (./)

Production

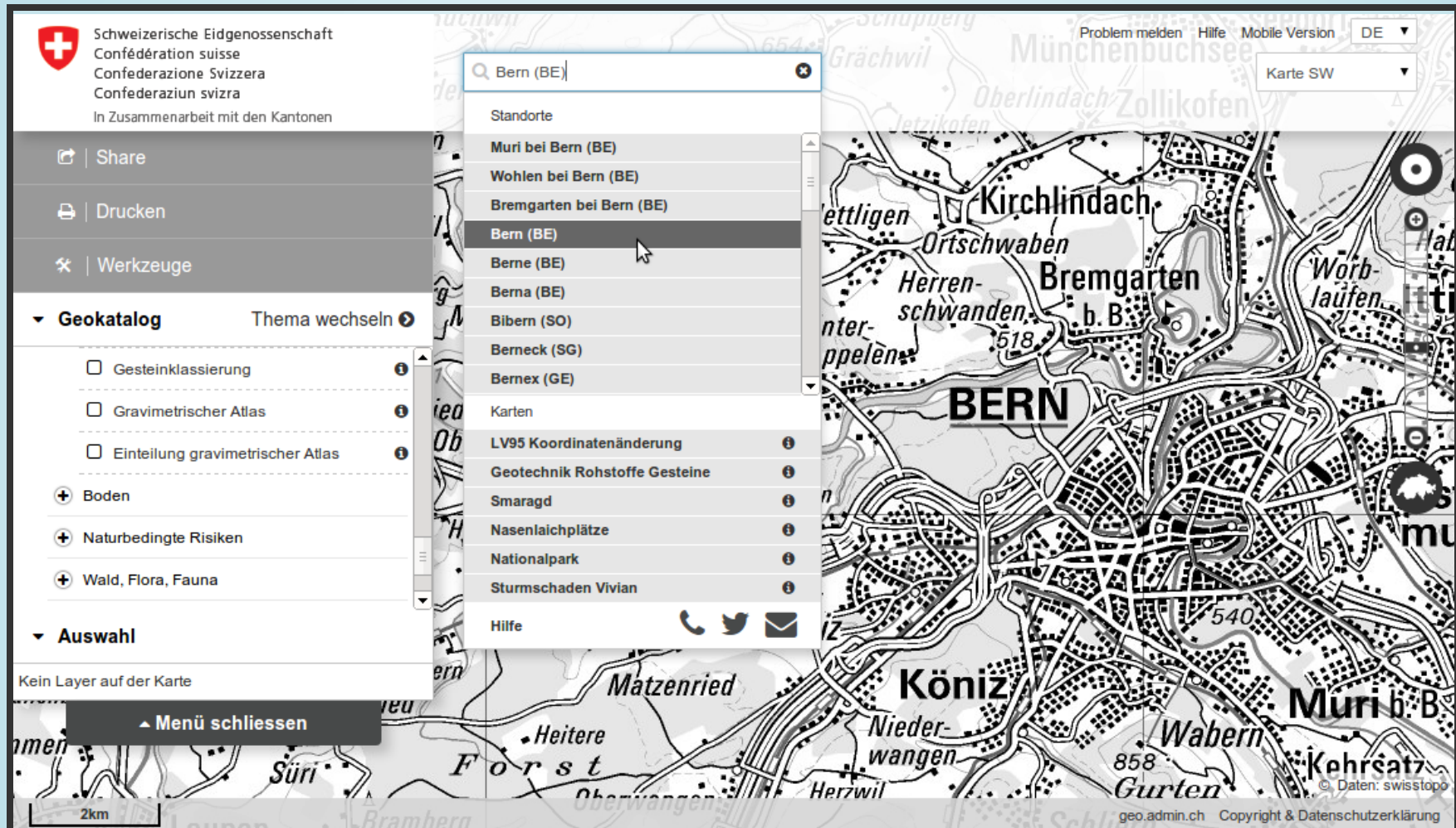


v3.0.0

TODO

- API review
- API can and will change
- API stability
- API docs
- Custom-build-Tool
- v3.0.0 is near

READY FOR PRODUCTION



map.geo.admin.ch ,  Code

WHEN WILL IT
SHIP?

MILESTONE 3.0.0 IS DUE ...

... 2014-08-21 ...

... ± n MONTHS ☺

THANK YOU
QUESTIONS /
REMARKS?

Imprint

IMPRINT

- Author: Marc Jansen, terrestris GmbH & Co. KG, jansen@terrestris.de
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- This talk is a derived work of the talk "OpenLayers 3 — Einführung, Verwendungsbeispiele und technische Highlights" by Marc Jansen & Andreas Hocevar, held at the FOSSGIS 2014.
- [Slideshow \(HTML5\)](#)
- [Slides \(PDF\)](#)