



OpenLayers



Stand, Neues und Zukünftiges

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Outline

- Über ...
- Stand
- Neues
- Zukünftiges

Über ...

Marc Jansen



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👤 @marcjansen

🐦 @selectoid



- Seit 2007 bei terrestris
- Kernentwickler und PSC Mitglied GeoExt
- Kernentwickler OpenLayers
- Buchautor "OpenLayers"
- Sprecher & Trainer national & international
- OSGeo Foundation Charter Member

terrestris



 @terrestris
 @terrestrisde

- terrestris.de
- OpenSource GIS aus Bonn
- Entwicklung, Projekte & Support/Schulung
- Beratung, Planung, Implementierung & Wartung

Andreas Hocevar



- OpenLayers core developer and steering committee member
- Consultant for Boundless

✉ ahocevar@boundlessgeo.com

👤 @ahocevar

🐦 @ahoce

Boundless



 @boundlessgeo
 @boundlessgeo

- boundlessgeo.com
- Active leader in the open source community
- Has developed and supported powerful software for enterprise GIS applications since 2002

Stand

Was ist OpenLayers?

“

*A high-performance, feature-packed
library for all your mapping needs.*

– *openlayers.org, 10. März 2017*

- OpenSource (BSD)
- JavaScript
- OSGeo Projekt

Blend Modes



difference

Canvas compositing / blending mode ☒ Red circle affected ☒ Green circle affected

☒ Blue circle affected

OpenLayers

- ...lange Historie
 - v1.0.0, Mai 2006
 - v2.0.0, August 2006
 - v3.0.0, August 2014
 - v4.0.0, Februar 2017

OpenLayers

- Viele Daten- & Layerquellen
- Interaktionen & Steuerelemente
- Aktiv entwickelt & große Community
- Gut dokumentiert & viele Beispiele
- Universal einsetzbar

Neues

v4.0.1

Was bedeutet die 4?

- Kein kompletter rewrite
- Keine massiven API-Brüche
- Ab jetzt: **Semantic versioning**

Was bedeutet die 4?

- Beta: npmjs.com/package/ol

The screenshot shows the npm package page for 'ol' (OpenLayers). The package is marked as 'public'. A note states: 'Note: This package is in beta and the API is subject to change before a final stable release.' The usage section shows the command 'npm install ol --save'. On the right, a box says 'Unleash awesomeness' with a link to 'Get started with npm Orgs'. Below that, it shows the command 'npm install ol' and a link to 'learn more'. A user 'tschaub' is noted as having published a month ago. The version '4.0.1-beta.2' is highlighted as the latest of 23 releases. The license is 'BSD-2-Clause'.

- ~~ES6~~ ES2015 Module
- Hintergrund: [PR 6302](#)

```
// Adjusted from
// https://gist.github.com/tschaub/32a5692bedac5254da24fa3b12072f

import Map from 'ol/map';
import View from 'ol/view';
import TileLayer from 'ol/layer/tile';
import OSM from 'ol/source/osm';
import proj from 'ol/proj';

new Map({
  target: 'map',
  layers: [
    new TileLayer({
      source: new OSM()
    })
  ],
  view: new View({
    center: proj.fromLonLat([13.4319466, 48.5667364]),
    zoom: 14
  })
});

// That's it already...
```

```
import closure from 'rollup-plugin-closure-compiler-js';
import common from 'rollup-plugin-commonjs';
import node from 'rollup-plugin-node-resolve';
module.exports = {
  entry: 'main.js',
  targets: [
    {dest: 'bundle.js', format: 'es'}
  ],
  plugins: [ node(), common(),
    closure({
      compilationLevel: 'ADVANCED',
      warningLevel: 'QUIET'
    })
  ]
};
```

...auf der Kommandozeile...

```
$ npm run build
```

32 KB (gzip)

Neue / geänderte Features

...seit v3.17.1 (> 1600 Commits)

getZoom / setZoom

Vorher

```
view.setZoom(1.5);  
view.getZoom(); // undefined
```

Nachher

```
view.setZoom(1.5);  
view.getZoom(); // 1.5    \ (´▽`) /    Hooray!
```

Details: [Issue 4333](#), [PR 5674](#)

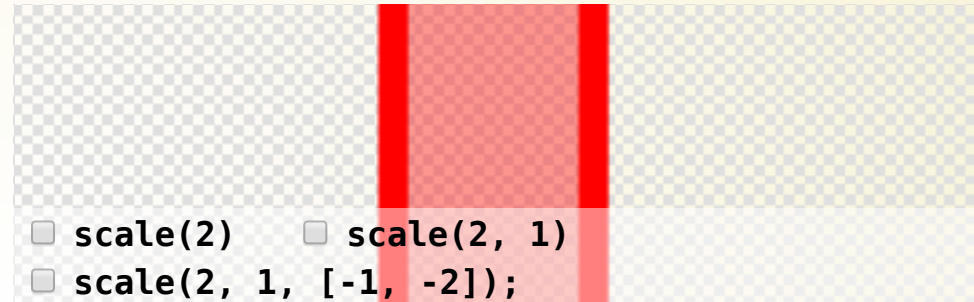
Geometrien skalieren

```
var geom = new ol.geom.Polygon([[
  [-1, -2],
  [1, -2],
  [1, 2],
  [-1, 2],
  [-1, -2]
]]);

geom.scale(2);

geom.scale(2, 1);

geom.scale(2, 1, [-1, -2]);
```



Details: [Issue 5684](#), [PR 5685](#)

Intersects & Within

```
new ol.format.WFS().writeGetFeature({
  srsName: 'EPSG:4326',
  featureTypes: ['area'],
  filter: ol.format.filter.intersects(
    'the_geom',
    new ol.geom.Polygon([[
      [10, 20],
      [10, 25],
      [15, 25],
      [15, 20],
      [10, 20]
    ]])
  )
});
```

Details: [PR 5668](#)

overlaps & Vector / VectorTile

```
new ol.source.Vector({  
  url: 'state.geo.json',  
  format: new ol.format.GeoJSON(),  
  overlaps: false  
})
```

Details: [PR 5196](#)

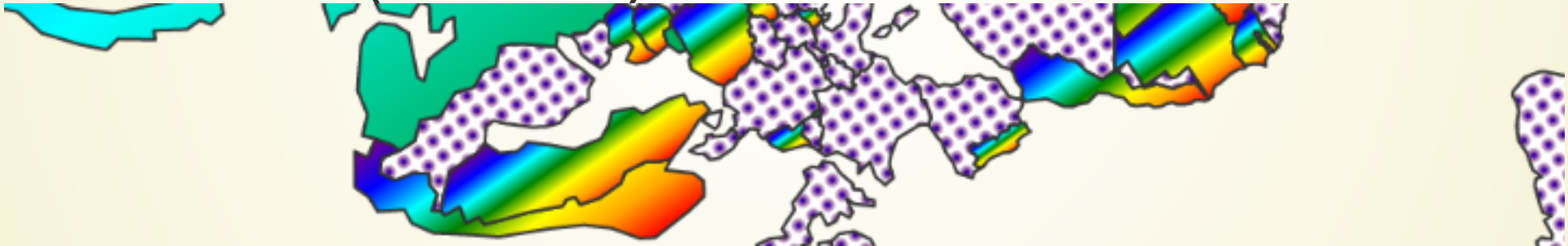
rotateWithView



Details: [PR 5050](#)

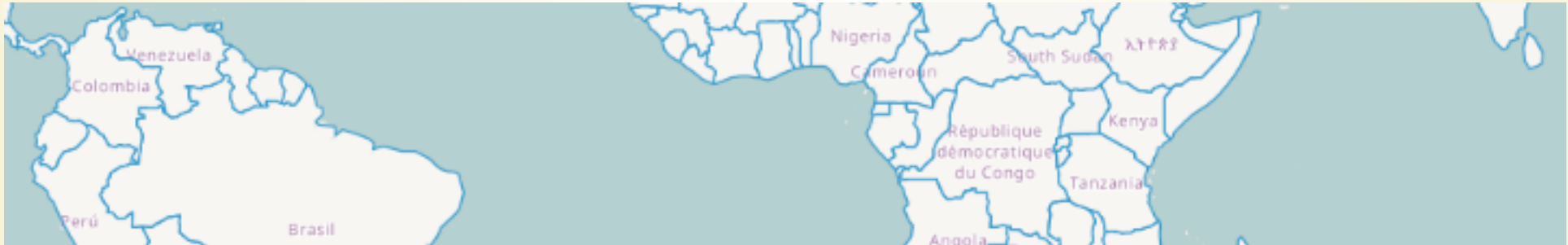
Sonstige Änderungen

- `style.clone()` (PR 5832)
- Freihandzeichnen nun intuitiver (PR 5970, PR 5973, PR 5975)
- `CanvasGradient` / `CanvasPattern` roteren nun mit dem View (PR 5950)



Sonstige Änderungen

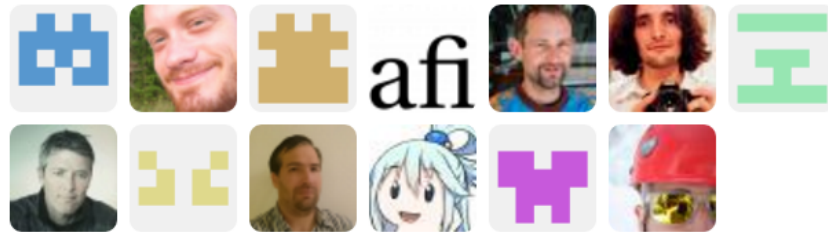
- Neu `ol.interaction.Extent` (PR 5290)
- Closure library entfernt
- DOM Renderer entfernt



Sonstige Änderungen

- `view.animate()` statt `beforeRender`
- WebGL Vektor Support erweitert (immer noch experimentell, [PR 5462](#))

13 participants



Sonstige Änderungen

- PinchZoom & fraktionaler Zoom
- forEachFeatureAtPixel etc.:

```
// Alt:
map.forEachFeatureAtPixel(
  pixel, callback, callbackThis, layerFilterFn, layerFilterThis
);
map.hasFeatureAtPixel(
  pixel, layerFilterFn, layerFilterThis
);

// Neu:
map.forEachFeatureAtPixel(pixel, callback.bind(callbackThis), {
  layerFilter: layerFilterFn.bind(layerFilterThis)
});
map.hasFeatureAtPixel(pixel, {
  layerFilter: layerFilterFn.bind(layerFilterThis)
});
```

Zukünftiges

- Leichtere Wiederverwendbarkeit (u.a. wegen ES2015 Modulen & Co.)
- Leichtere Partizipation am Projekt
- WebGL Verbesserungen (hoffentlich)
- Canvas Performance

Vielen Dank

Fragen &
Anmerkungen?

Impressum

Impressum

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Lizenz

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Slides, PDF, git repository