

GeoExt 3

OpenLayers 3 und ExtJS 6 im Zusammenspiel



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Agenda

- Einführung & Vorstellung
- Die Geschichte von GeoExt
- Was genau ist GeoExt 3?
 - Ziele
 - Status / aktueller Stand
 - Beispiele & Features
- Ausblick

Einführung & Vorstellung

Christian Mayer

- Softwareentwickler & -architekt
- Selbstständiger GIS-Dienstleister
(meggsimum)
- Kernentwickler & Mitglied des PSC GeoExt
- OSGeo Foundation Charter Member
- Sprecher auf nat. & intern. Konferenzen
- ♥ OpenSource & GIS / Spatial



meggsimum



 [@meggsimum](#)

 [@meggsimum](#)

- [meggsimum.de](#)
- Dienstleistung im Bereich GIS / Webmapping / GDI
- Dannstadt-Schauernheim
- Moderne Webmapping-Lösungen
- Softwarekonzepte und Softwareentwicklung
- Consulting und Schulungen

GeoExt

- JavaScript Framework für anspruchsvolle WebGIS-Anwendungen
- Basiert auf OpenLayers and ExtJS
- Erweitert ExtJS um räumliche Komponenten
- Integriert Geo-Formate in die Datenhaltung von ExtJS
- ==> "Rich Webmapping Applications"
- © OSGeo, OpenSource
- [Erster Commit](#) 25.03.2009

GeoExt...

**...ist die Verheiratung von ExtJS and
OpenLayers**

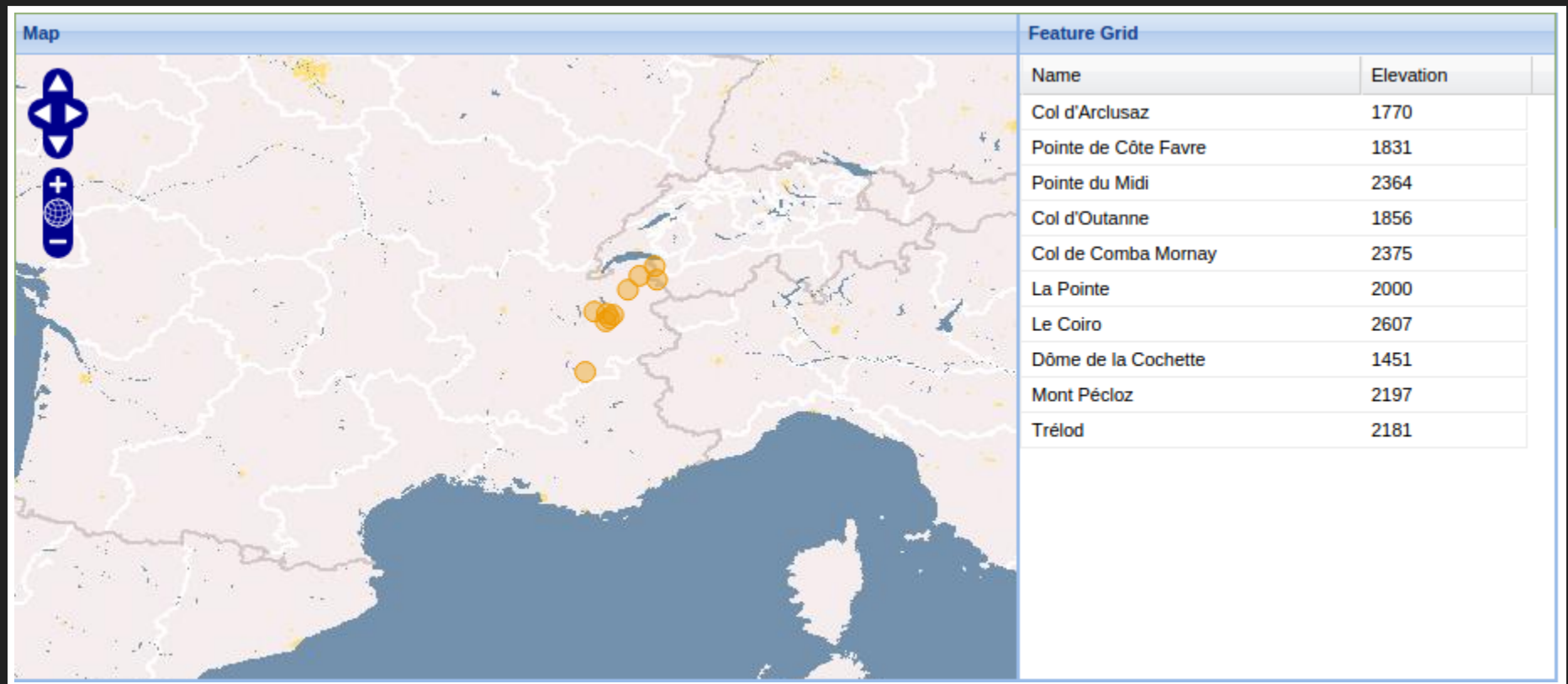
...ist das Kind von ExtJS and OpenLayers

**...erweitert/verbessert beide, ExtJS and
OpenLayers**

Die Geschichte von GeoExt

GeoExt 1.x

- Basiert auf ExtJS 3.x & OpenLayers 2.x
- geoext.org



2007



2009



2012



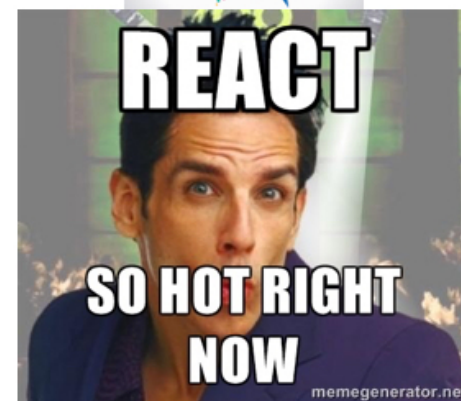
2013



2014

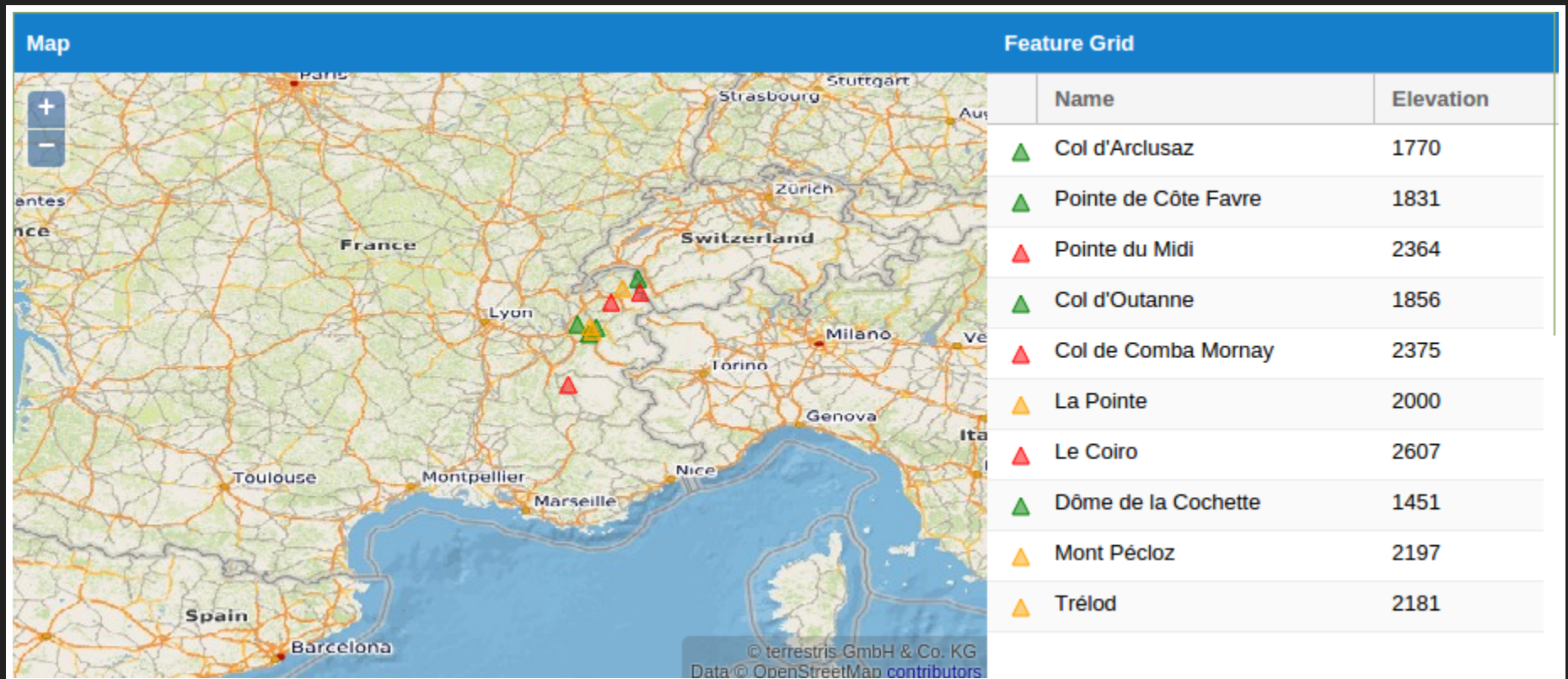


2015



GeoExt 2.0.x

- Basiert auf ExtJS 4.x & OpenLayers 2.x
- geoext.github.io/geoext2

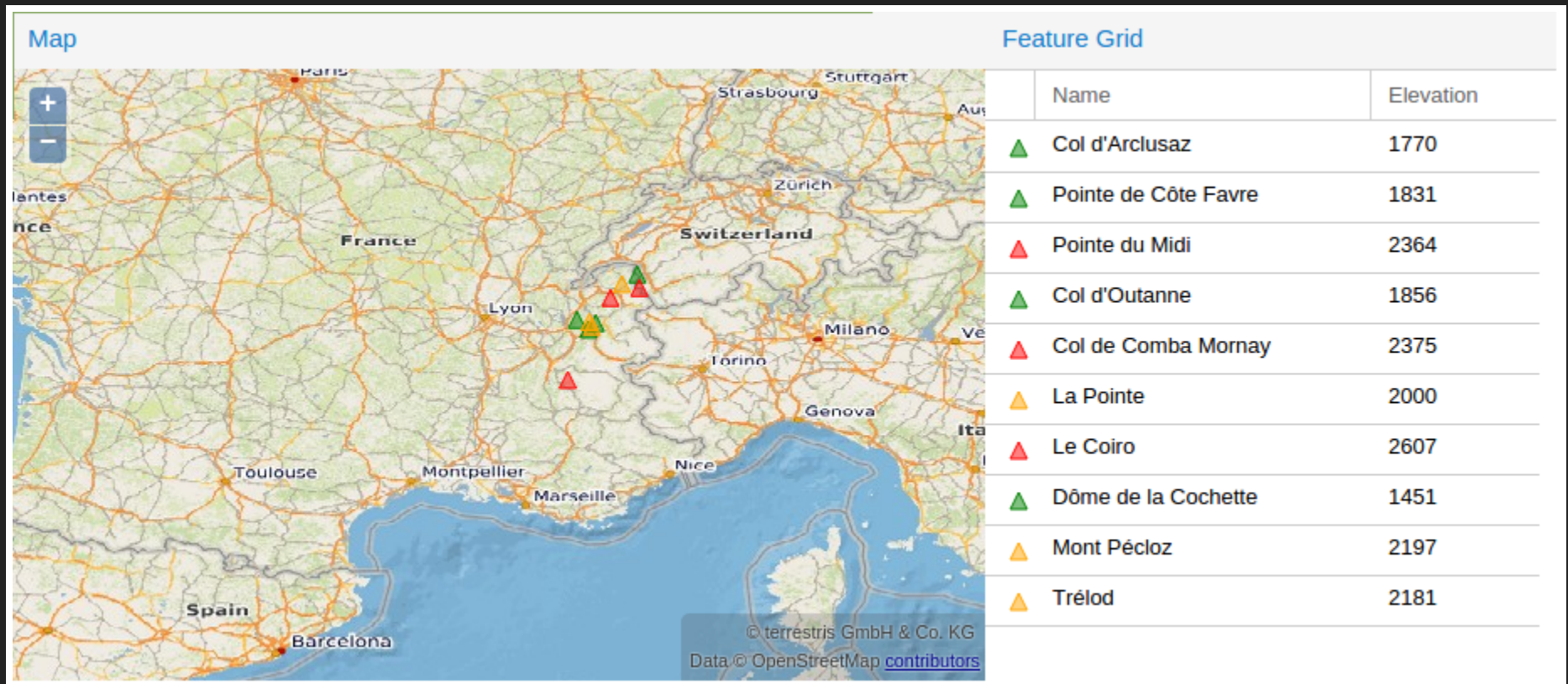


GeoExt 2.0.x

- Größte Veränderungen / Verbesserungen
 - Einführung einer neuen Erzeugungssyntax
 - MVC-Support
 - Einfacheres Styling der Anwendungen
 - Verbesserte API-Dokumentation
 - Kompatibilität zu den Build-Tools von (Dependency-Management, ...)

GeoExt 2.1.x (beta)

- Basiert auf ExtJS 4.2.x / ExtJS 5.1.x OpenLayers 2.x
- geoext.github.io/geoext2



GeoExt 2.1.x

- Größte Veränderungen / Verbesserungen
 - Unterstützung von 2 Major-Versionen von ExtJS
 - MVVM-Support
 - Two-Way-Binding
 - Verbesserte Unterstützung von Mobil- und Touch-Geräten
 - Responsive Design

In der Zwischenzeit...

OpenLayers 3

&

ExtJS 6

...erblickten das Licht der Welt

GeoExt 3 Codesprint



- 17.06. - 19.06.2015 in Bonn
- 10 Entwickler aus 4 Ländern
- Fundament geschaffen für GeoExt 3 auf Basis
 - OpenLayers 3
 - ExtJS 6



Sponsoren

- Bistum Eichstätt
- Boundless
- Bundesamt für Strahlenschutz
- Compass Informatics Ltd
- ISB AG
- Landesamt für Geoinformation und Landentwicklung
Baden Württemberg
- Landplan AG
- meggsimum
- terrestris GmbH & Co. KG

Was genau ist GeoExt3?

Ziele

- Schaffen einer neuen Codebasis ("from Scratch")
- Provitieren durch Sencha Tooling (Build / Paketierung)
- Unabhängigkeit vom Zielgerät (Desktop / Mobile)
- Mehr und modernisierte Beispiele, verbesserte Tests und Dokumentation

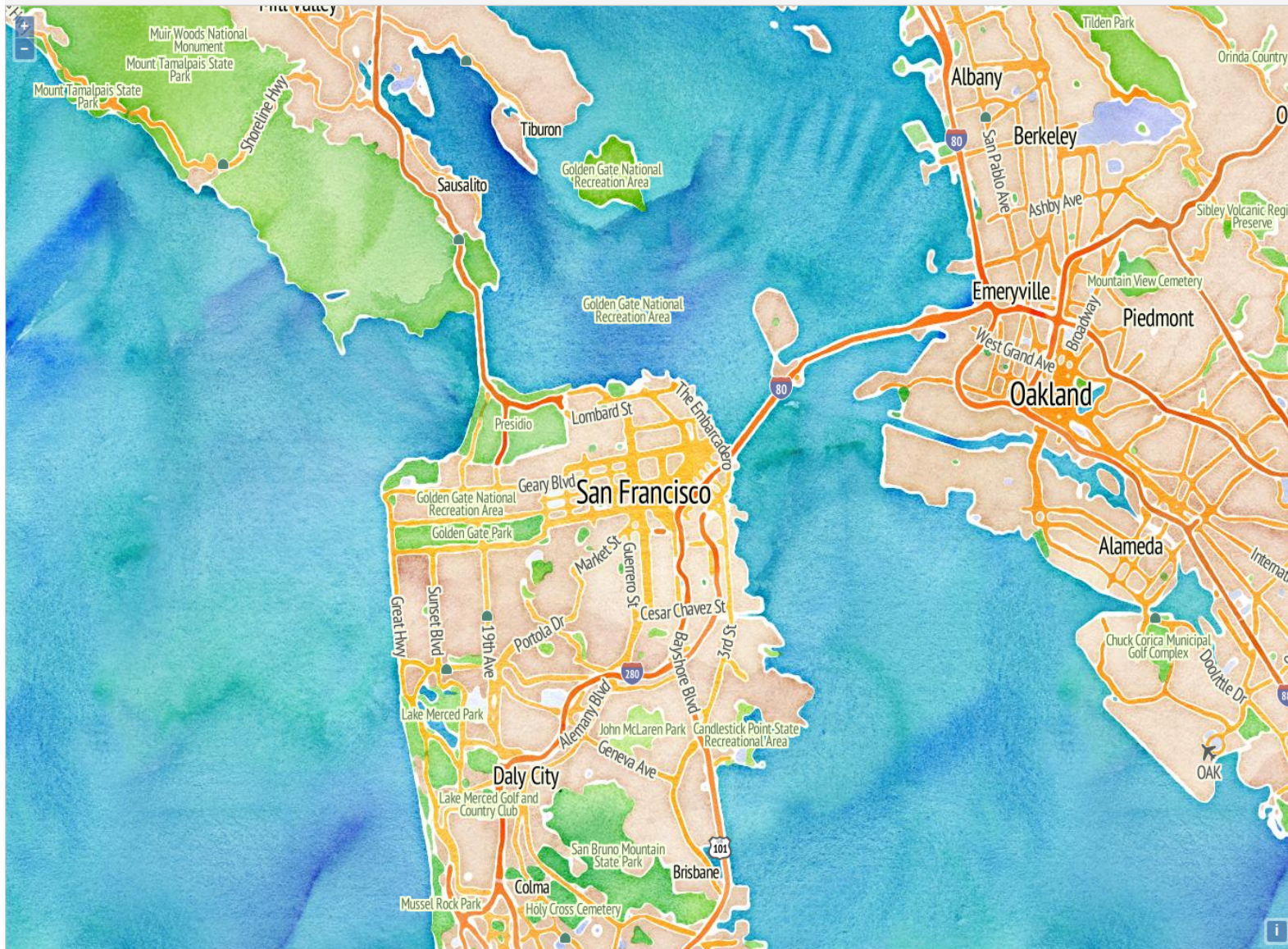
Status / aktueller Stand

- github.com/geoext/geoext3
- > 300 Commits ✓
- 7 Beitragende ✓
- Build and Paketierung ✓
- 82% Test-Abdeckung ✓
- Gute API-docs ✓
- Einige Beispiele ✓
- BSD ==> GPLv3 ✓
- Universal App Beispiel ✗
- 0 Releases ✗

Beispiele & Features

Basic MapComponent Beispiel

GeoExt.component.Map Example



Description

This example shows how to use the GeoExt.component.Map class.

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

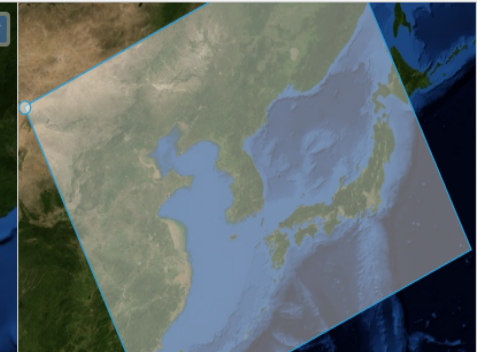
```
var olMap = new ol.Map({  
  layers: [  
    // ...  
  ],  
  view: new ol.View({  
    // ...  
  })  
});  
  
var mapComponent = Ext.create('GeoExt.component.Map', {  
  map: olMap  
});
```


OverviewComponent Beispiel

GeoExt.component.OverviewMap Example



OverviewMap (default)



Description

This example shows how to use the `GeoExt.component.OverviewMap` class.

The overviewmap will visualize the extent of the main map with a rectangle. The main map can be rotated (using SHIFT & drag), and the overviewmap will adjust the rotation of the rectangle. The top-left corner is visualized with a circle in the overviewmap.

Have a look at [overviewMap.js](#) to see how this is done.

OverviewMap (configured)



Themenbaum mit Legenden

Legends in tree panel

- ☒ Vector
- ☐ MapQuest Hybrid
- ☒ ol.layer.Group
 - ☒ MapQuest OSM
 - ☒ MapQuest Satellite

Description

This example shows how to use the `GeoExt.tree.Panel` class and shows two methods how to include legends for every treenode.

Have a look at [tree-legend-simple.js](#) to see how this is done.

treePanel

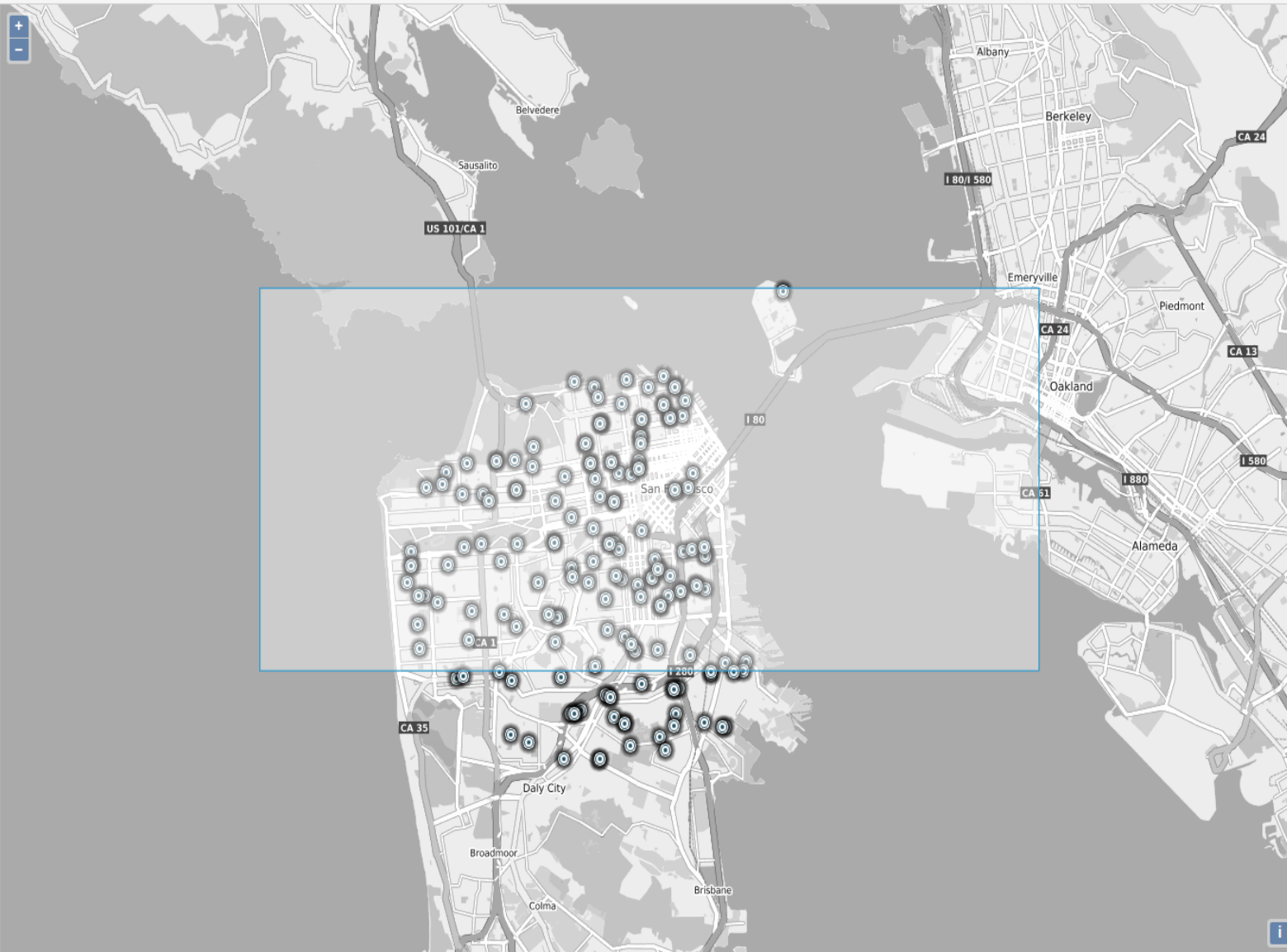
- ☒ Vector
- ☒ MapQuest Hybrid
- ☒ ol.layer.Group



Druck-Beispiel (mit MapFish v3)

GeoExt.data.model.print.Capability Example

Description



Print

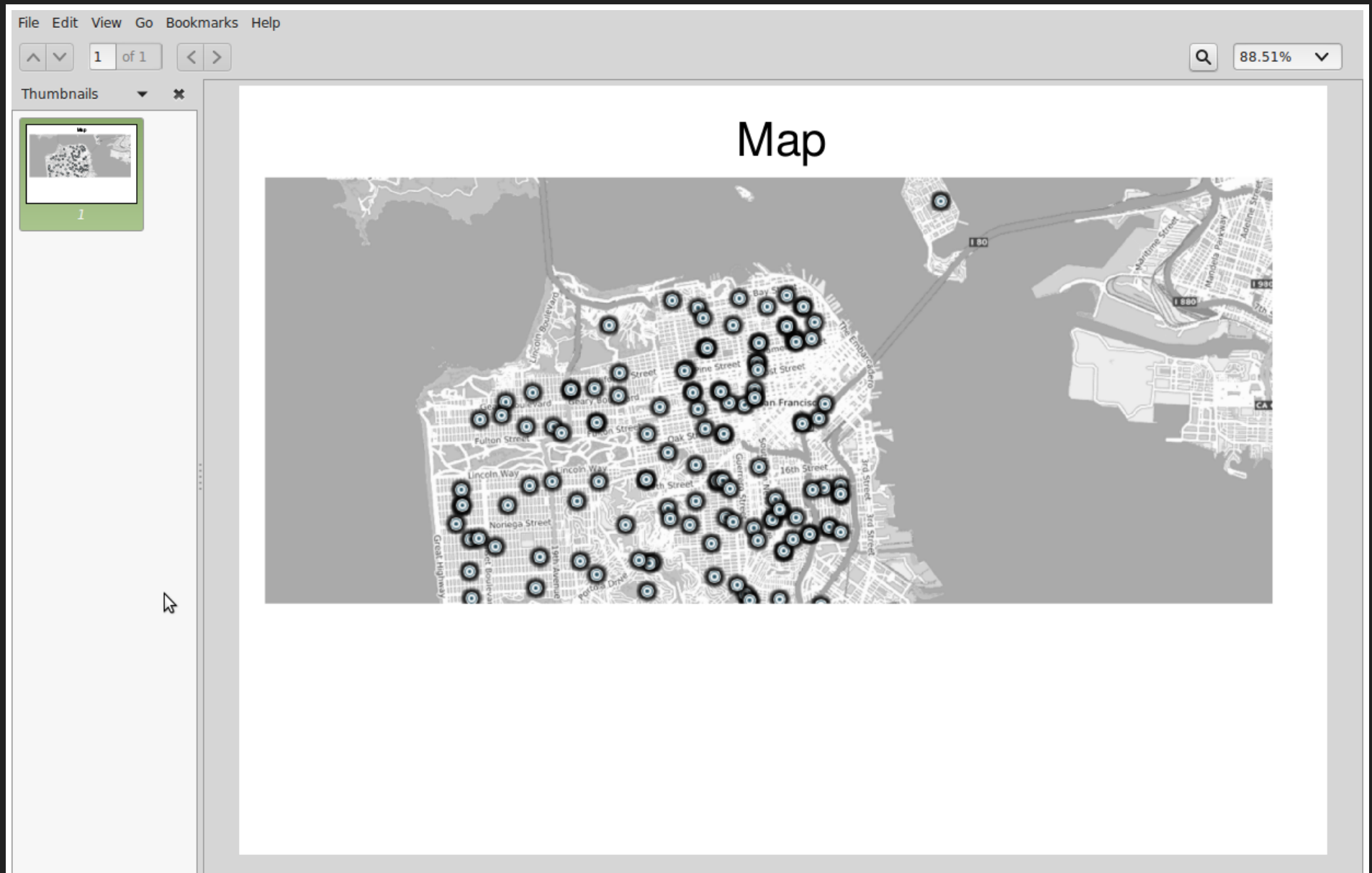
This example shows how to use the `GeoExt.data.MapfishPrintProvider` class to talk to a Mapfish Print Server (v3.x).

Afterwards we have all information to create a valid POST to the servlet. The printed extent is highlighted as vector layer. If you move around or change the zoom, the extent will adjust accordingly.

Click the button labelled 'Print' to actually create a PDF for the displayed extent.

Have a look at [basic-mapfish.js](#) to see how this is done.

Ergebnis-PDF des Druck-Beispiels



GeoExt Popups



FeatureRenderer

	point	line	polygon	text
default				n/a
red				n/a
custom				Ab
stacked				Ab

Text-graphic

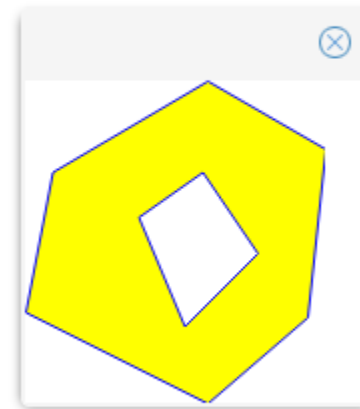
Text and graphic combined



Text only

Ab

Graphic only



FeatureStore in ExtJS Grids

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

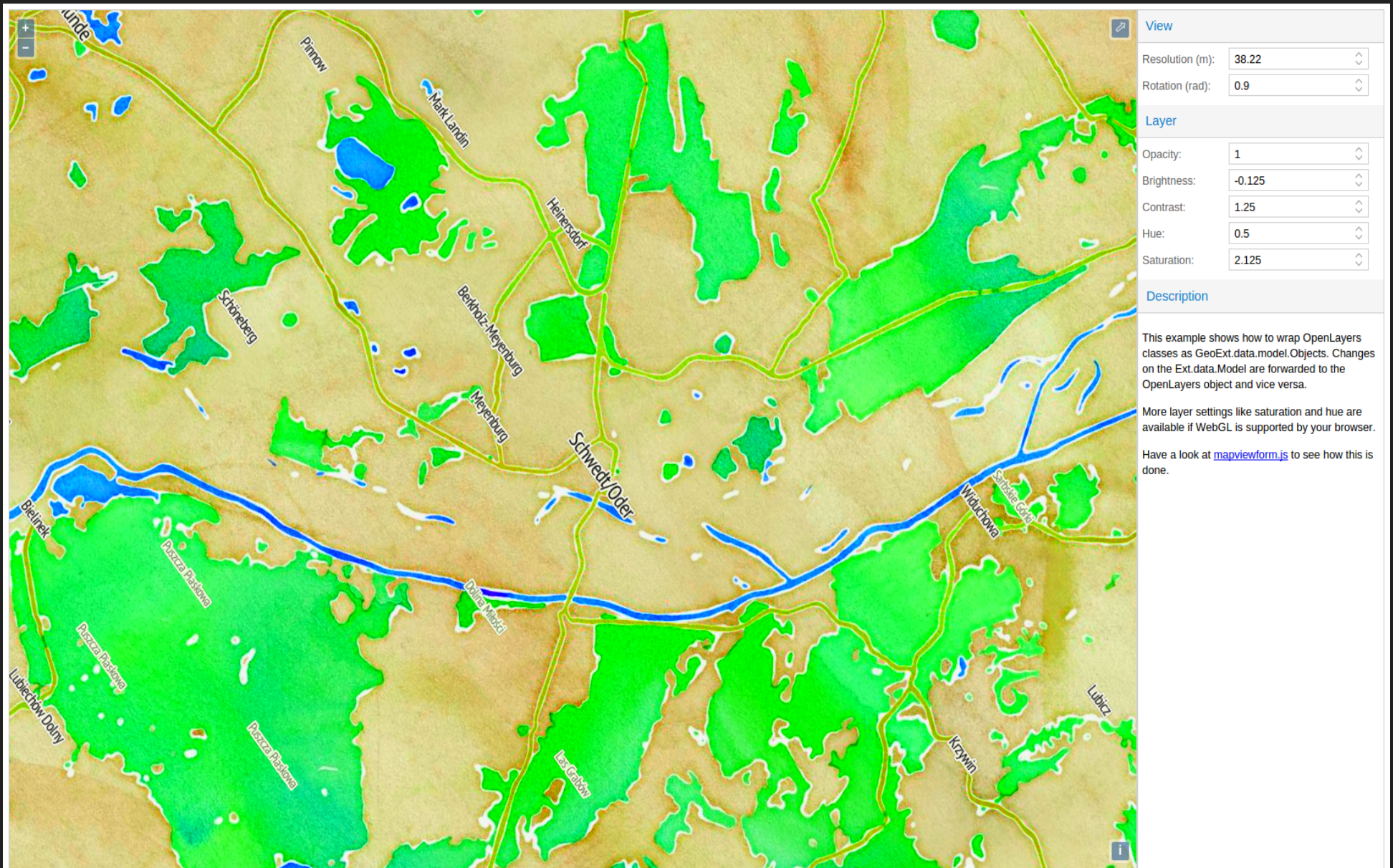
This example shows how to display features in grids.

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.

MapView-Formular (Two-Way-Binding)



The screenshot displays a web application interface. On the left, a map shows a rural landscape with green fields, brown roads, and blue water bodies. Labels on the map include 'Pirnow', 'Mark Landin', 'Heinersdorf', 'Bertholz-Meyenburg', 'Meyenburg', 'Schwedt/Oder', 'Waldchowa', 'Lubitz', 'Krywin', 'Las Grabow', 'Dallwitz-Mücheln', 'Rasza Pasowa', 'Lubeczow Dory', 'Bielitz', and 'Schöneberg'. On the right, a control panel titled 'View' contains two sections: 'View' and 'Layer'. The 'View' section has 'Resolution (m):' set to 38.22 and 'Rotation (rad):' set to 0.9. The 'Layer' section has 'Opacity:' set to 1, 'Brightness:' set to -0.125, 'Contrast:' set to 1.25, 'Hue:' set to 0.5, and 'Saturation:' set to 2.125. Below these is a 'Description' section with text explaining the application's purpose and providing a link to 'mapviewform.js'.

View

Resolution (m): 38.22

Rotation (rad): 0.9

Layer

Opacity: 1

Brightness: -0.125

Contrast: 1.25

Hue: 0.5

Saturation: 2.125

Description

This example shows how to wrap OpenLayers classes as GeoExt.data.model.Objects. Changes on the Ext.data.Model are forwarded to the OpenLayers object and vice versa.

More layer settings like saturation and hue are available if WebGL is supported by your browser.

Have a look at [mapviewform.js](#) to see how this is done.

Ausblick

Ausblick / zukünftig

- Veröffentlichung von Beta- / Preview-Versionen
- Roadmap für die weitere Entwicklung
- Mehr Leute begeistern
- Universal Application
- Mögliche Untergliederung: GeoExt-base, -modern, -classic
- Kontinuierliche Weiterentwicklung
- ... anschließend Veröffentlichung als 3.0.0

Danke!

**Fragen &
Anmerkungen?**

Impressum

Impressum

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Credits

Diese Folien basieren auf dem Vortrag [Towards GeoExt 3 - Supporting both OpenLayers 3 and ExtJS 6](#) von M. Jansen & C. Mayer

Lizenz

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[Slides \(HTML\)](#), [Slides \(PDF\)](#), [git repository](#)