

GeoExt 3

OpenLayers 3 und ExtJS 6 im Zusammenspiel



Christian Mayer

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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

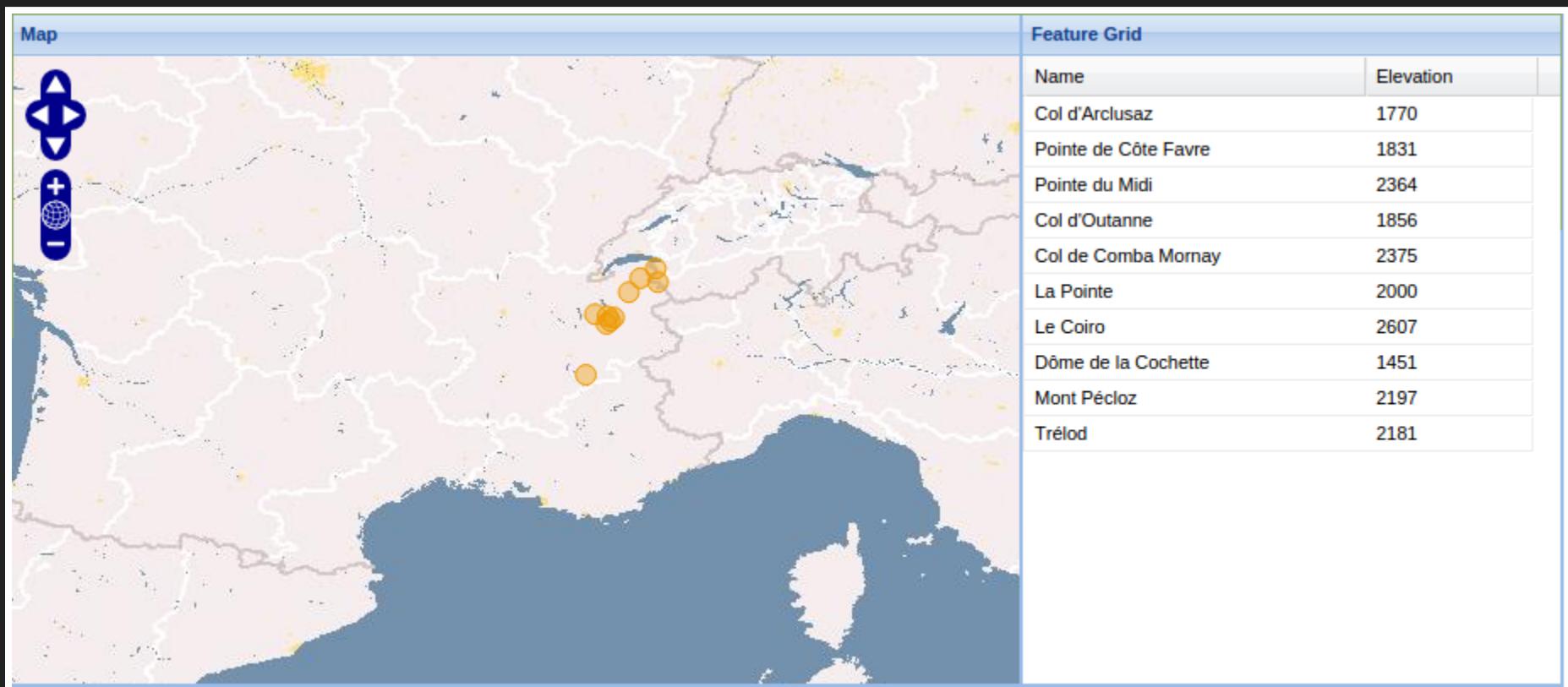
...ist das Kind von ExtJS and OpenLayers

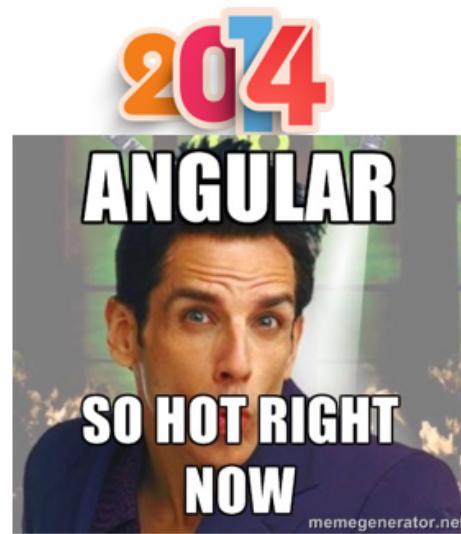
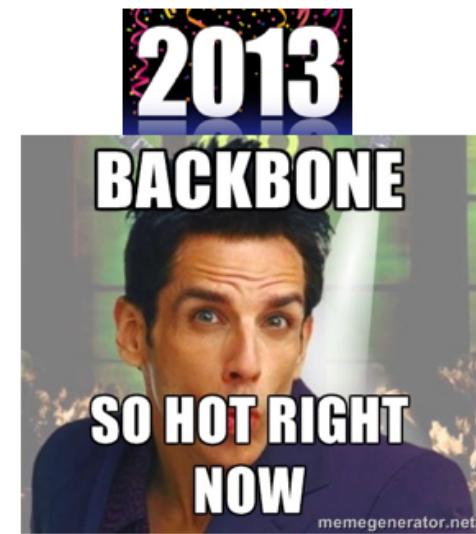
...erweitert/verbessert beide, ExtJS and
OpenLayers

Die Geschichte von GeoExt

GeoExt 1.x

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





@bitovi on twitter

GeoExt 2.0.x

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

Map

Feature Grid

Name	Elevation
Col d'Arclusaz	1770
Pointe de Côte Favre	1831
Pointe du Midi	2364
Col d'Outanne	1856
Col de Comba Mornay	2375
La Pointe	2000
Le Coiro	2607
Dôme de la Cochette	1451
Mont Pécloz	2197
Trélod	2181

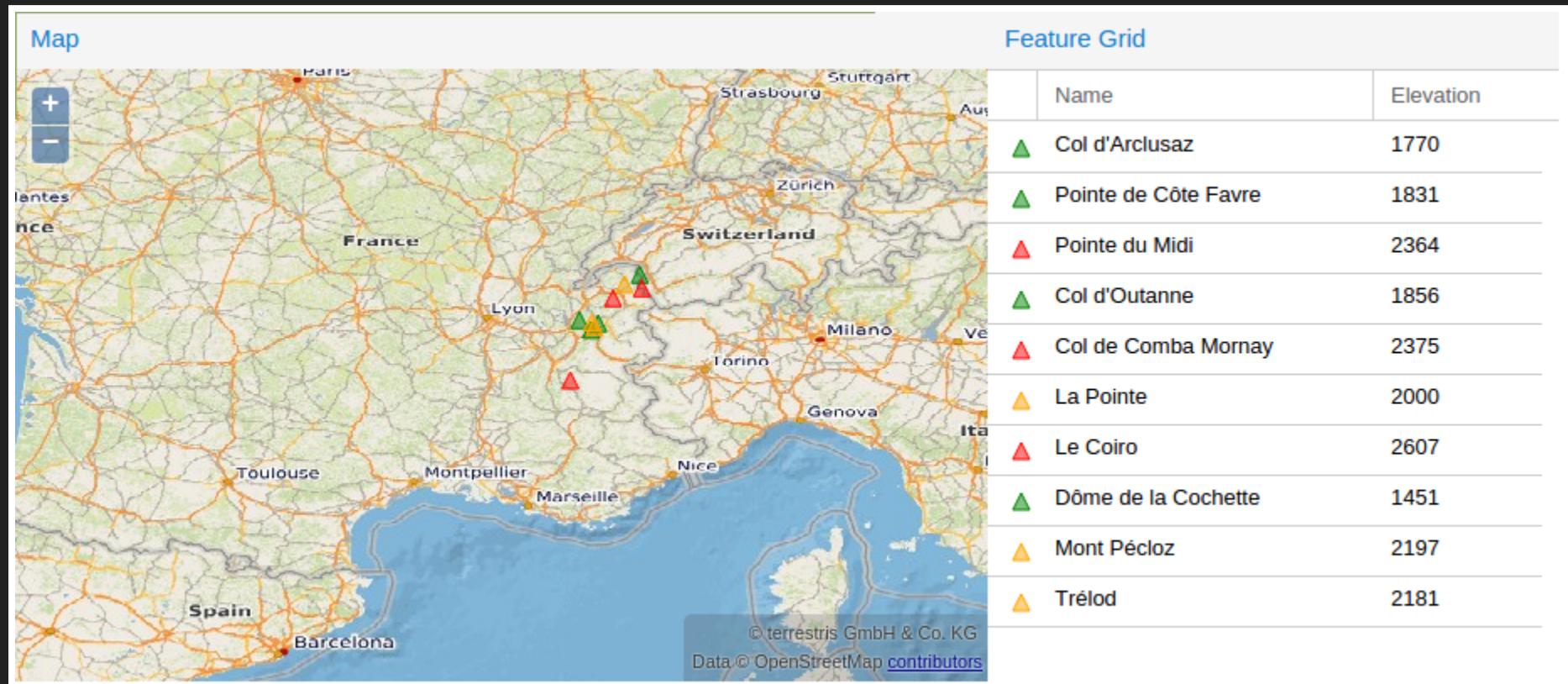
© terrestris GmbH & Co. KG
Data © OpenStreetMap contributors

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
- meggsum
- terrestris GmbH & Co. KG

Was genau ist GeoExt3?

Ziele

- Schaffen einer neuen Codebasis ("from Scratch")
- Profitieren 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

This example shows how to use the `GeoExt.component.Map` class. Have a look at [map.js](#) to see how this is done.

The map displays the San Francisco Bay Area, including the city of San Francisco and surrounding areas like Oakland, Berkeley, and Alameda. Key features shown include:

- Geographic Labels:** Muir Woods National Monument, Mount Tamalpais State Park, Tiburon, Sausalito, Golden Gate National Recreation Area, Presidio, Lombard St, The Embarcadero, San Francisco, Great Hwy, 19th Ave, Portola Dr, Market St, Guerrero St, Cesar Chavez St, Alameda Blvd, 280, John McLaren Park, Candlestick Point State Recreational Area, Lake Merced Park, Lake Merced Golf and Country Club, Colma, Mussel Rock Park, Holy Cross Cemetery, San Bruno Mountain State Park, Daly City, Brisbane, Albany, Berkeley, Emeryville, Piedmont, Alameda, Tilden Park, Orinda Country Club, Sibley Volcanic Regional Preserve, Mountain View Cemetery, West Grand Ave, Broadway, International Blvd, Chuck Corica Municipal Golf Complex, Doolittle Dr, OAK, and the airport icon.
- Road Networks:** Major highways 80, 280, 101, and 880 are clearly marked.
- Parks and Landmarks:** Golden Gate National Recreation Area, Presidio, Lake Merced Park, John McLaren Park, Candlestick Point State Recreational Area, and various state parks.
- Urban Grid:** The grid-like street patterns of San Francisco and surrounding urban centers are visible.

```
var olMap = new ol.Map({
  layers: [
    // ...
  ] ,
  view: new ol.View({
    // ...
  } )
}) ;

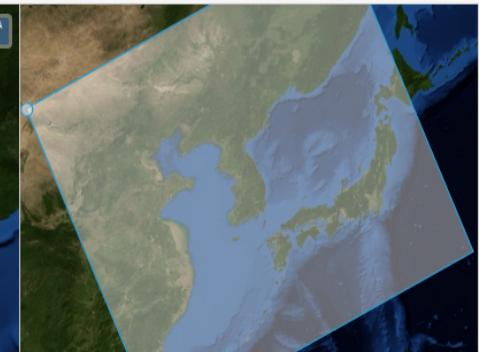
var mapComponent = Ext.create('GeoExt.component.Map', {
  map: olMap
}) ;
```

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.

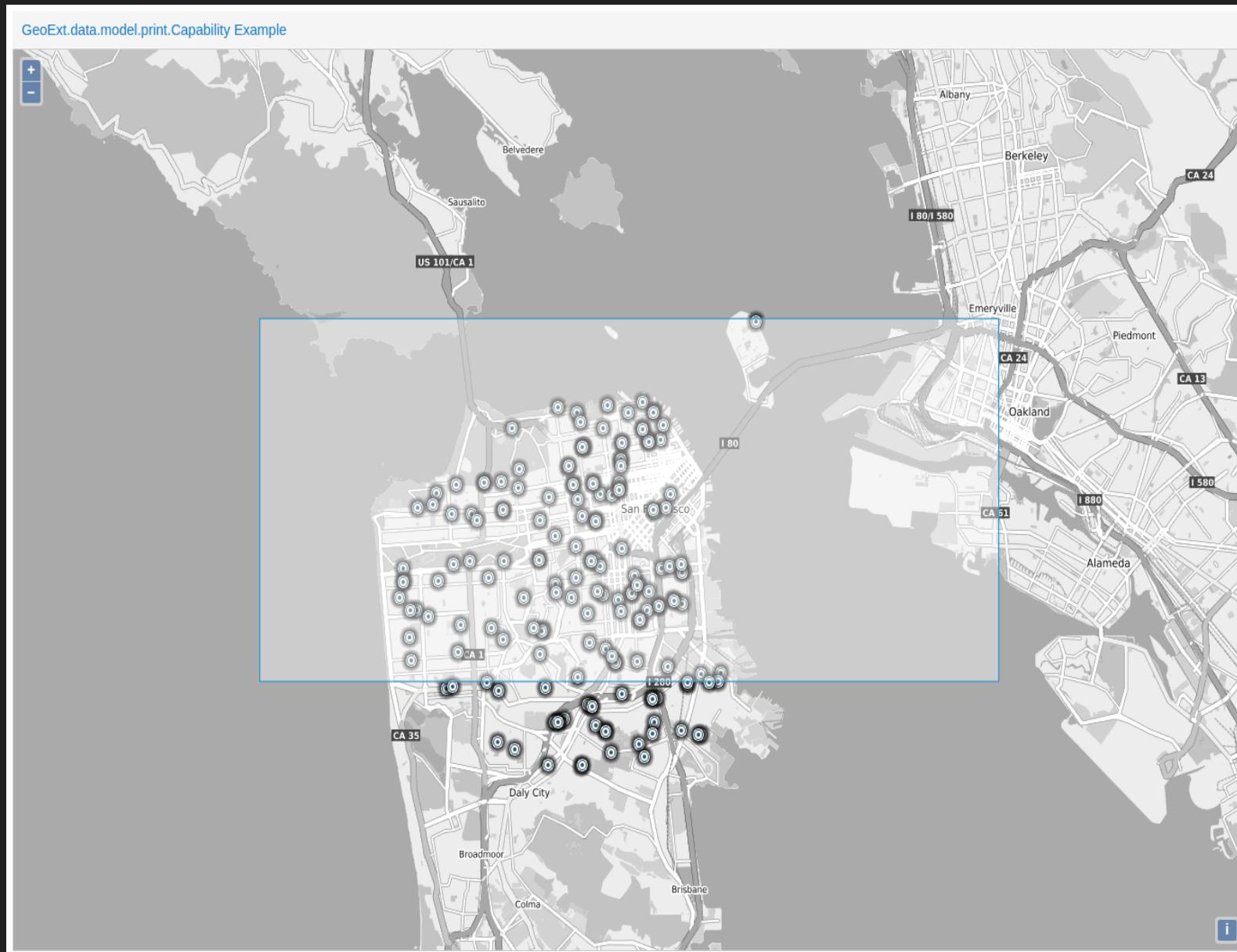
treePanel

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

The map displays a variety of geographical features, including mountain ranges, deserts, and coastal areas. Major rivers like the Yangtze and Ganges are visible. The legend on the left side of the map interface allows users to switch between different map types (Vector, MapQuest Hybrid, MapQuest OSM, and MapQuest Satellite) and includes a zoom control (+/-).

Druck-Beispiel (mit MapFish v3)

GeoExt.data.model.print.Capability Example



+

-

i

Description

Print

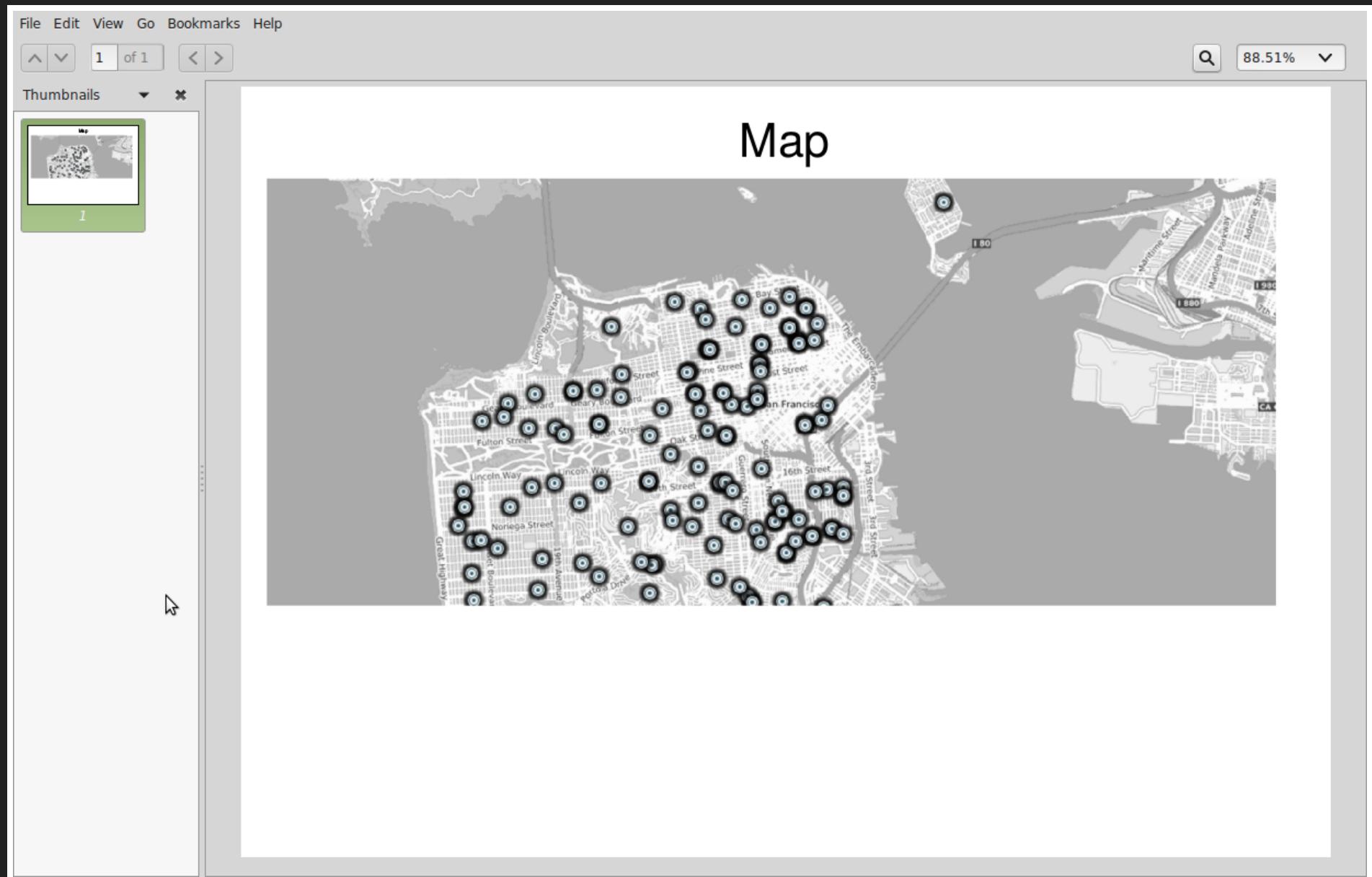
This example shows how to use the `GeoExt.data.MapfishPrintProvider` class to talk to a Mapfish Print Server (v3.x).

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

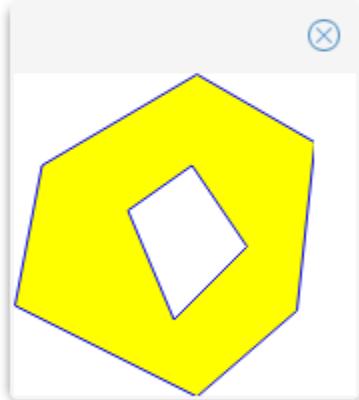
	point	line	polygon	text
default	○	~	□	n/a
red	○	~	□	n/a
custom	★	~	■	Ab
stacked	★	~	□	Ab

Text-graphic

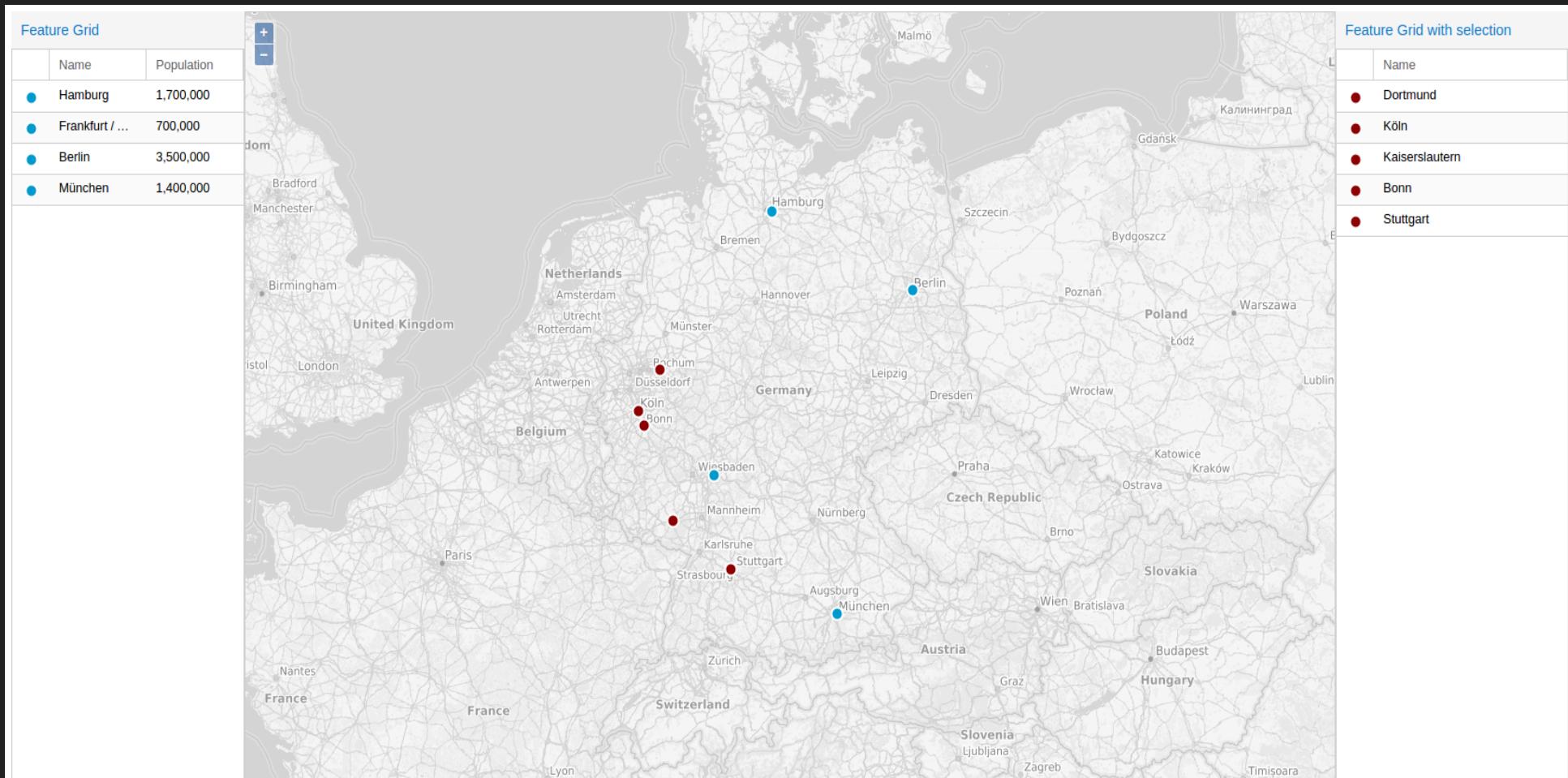
Text and graphic combined
Ab

Text only
Ab

Graphic only
■



FeatureStore in ExtJS Grids



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)

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

Autor

Christian Mayer

megsimum

Hauptstraße 165a | 67125 Dannstadt-Schauernheim

chris@megsimum.de

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](#)