

OL3-Cesium: 3D for OpenLayers

Guillaume Beraudo

FOSS4G Bonn, August 26th 2016



About me

- ▶ Senior software engineer at Camptocamp
- ▶ OL3-Cesium main developer and release manager
- ▶ OpenLayers 3 and Cesium contributor
- ▶ On github: [@gberaudo](https://github.com/gberaudo)

Agenda

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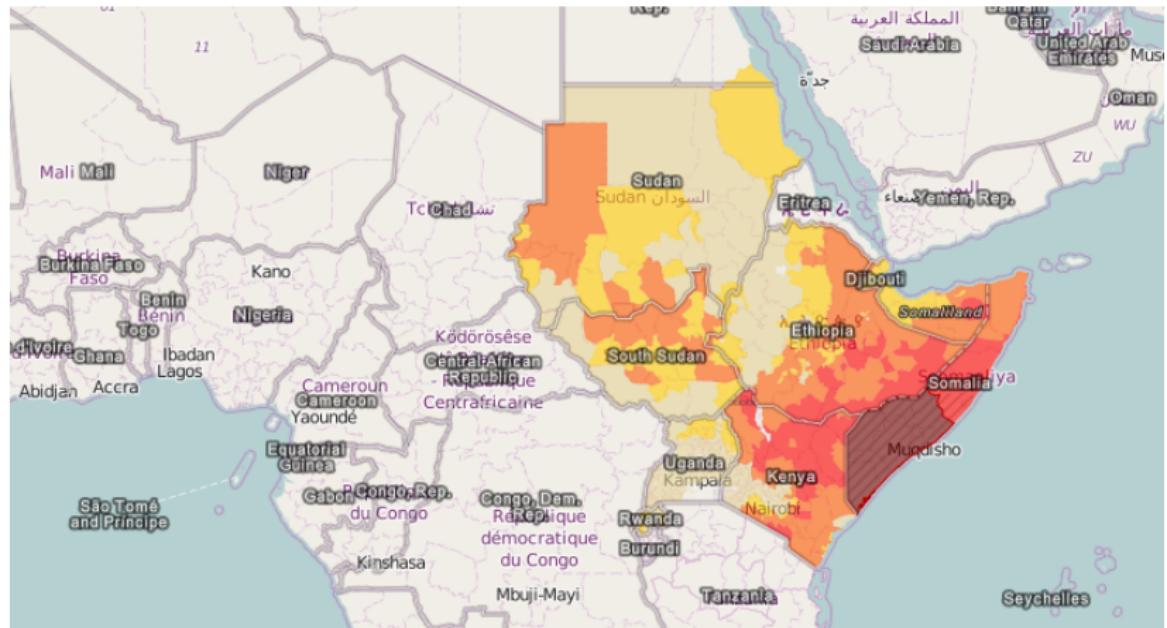
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- ▶ OpenLayers 3
- ▶ Cesium
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- ▶ Now is prime time - showcases

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- ▶ Future

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- ▶ Terrain, models, shadows
- ▶ WebGL, custom optimized renderer

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- ▶ Eat all available CPU/GPU resources

OL3-Cesium - The best of all worlds

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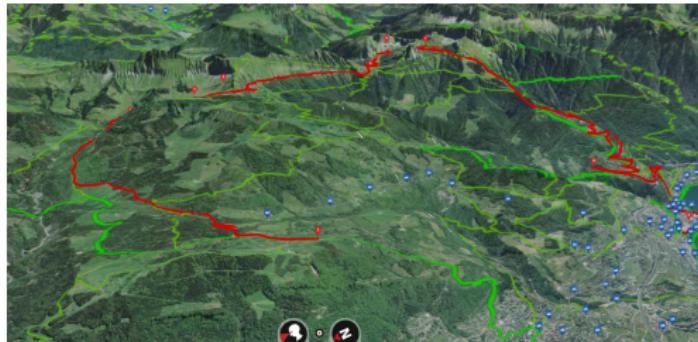
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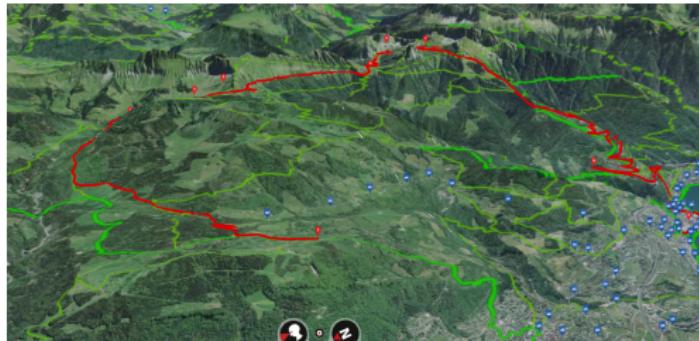
- ▶ Write once, use in 2D and 3D
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- ▶ Easiest way to add 3D to an OpenLayers 3 map
- ▶ Start interacting in one world and continue in the other
- ▶ It **literally** brings a new dimension to your maps

OL3-Cesium - Ready for prime time



SchweizMobil - outdoor application

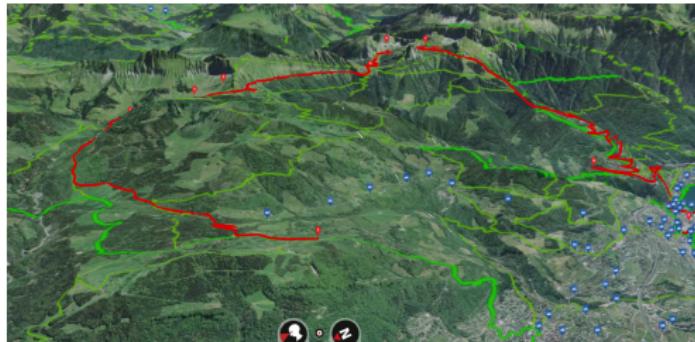
OL3-Cesium - Ready for prime time



SchweizMobil - outdoor application

- ▶ Custom 3D terrain - different projections

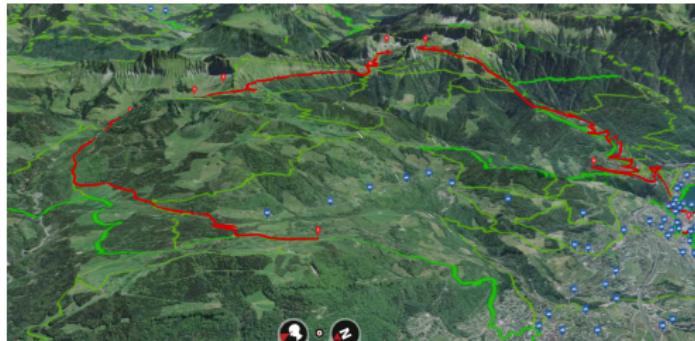
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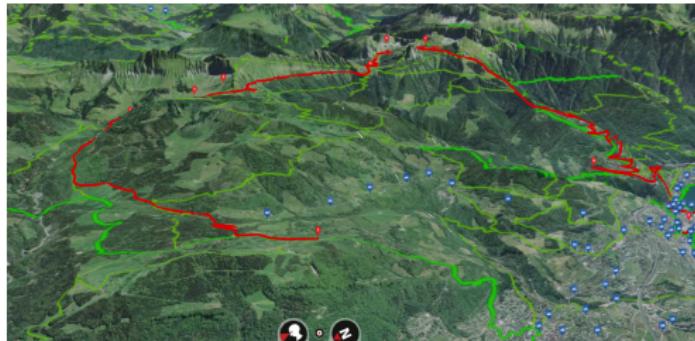
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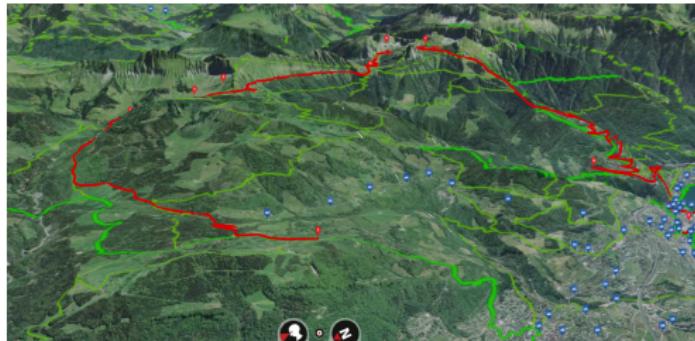
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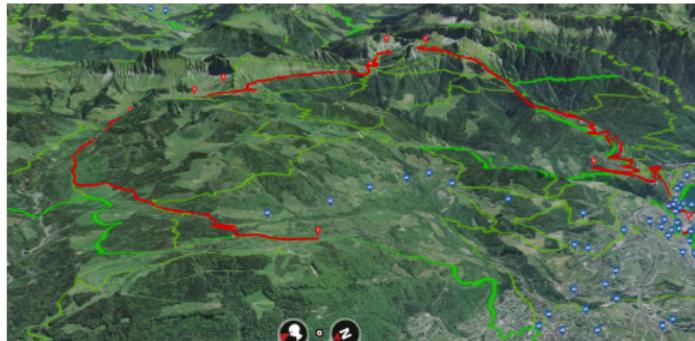
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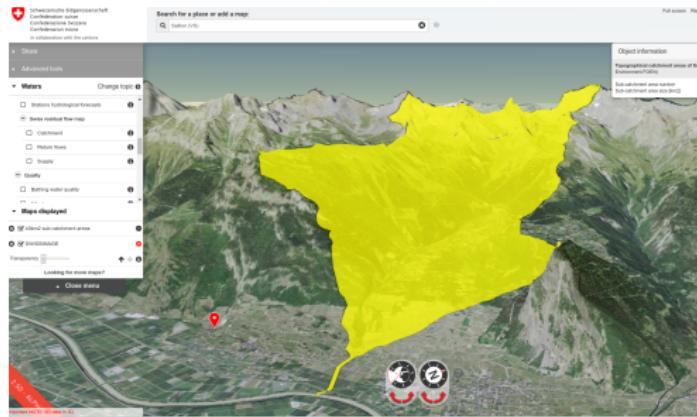
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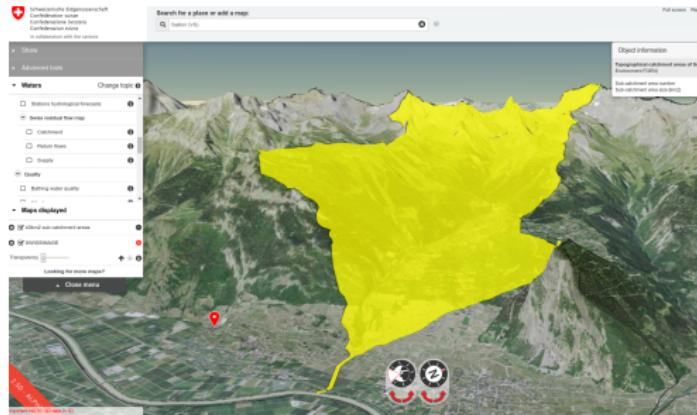
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- ▶ [demo]

OL3-Cesium - Ready for prime time



Geoadmin - Swiss geoportal

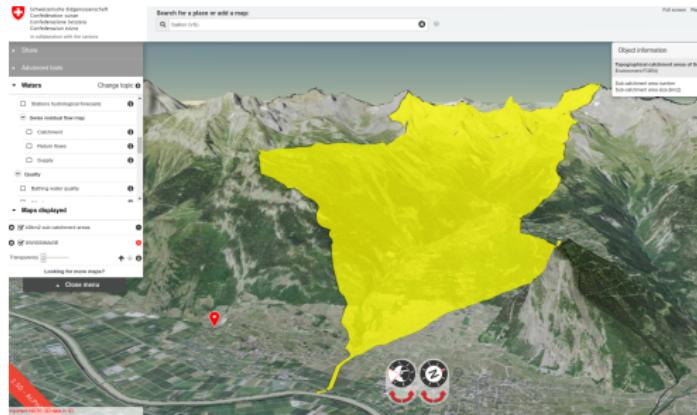
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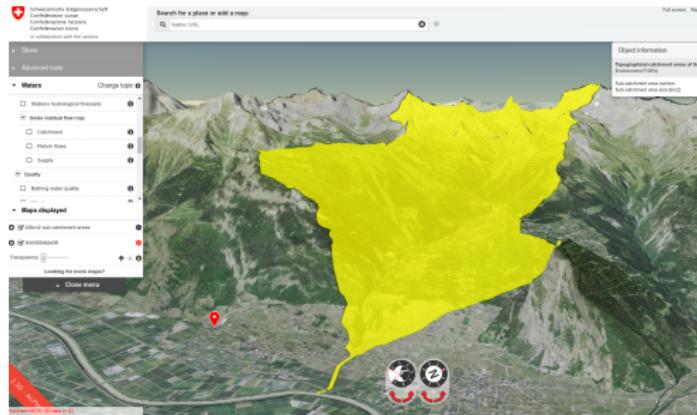
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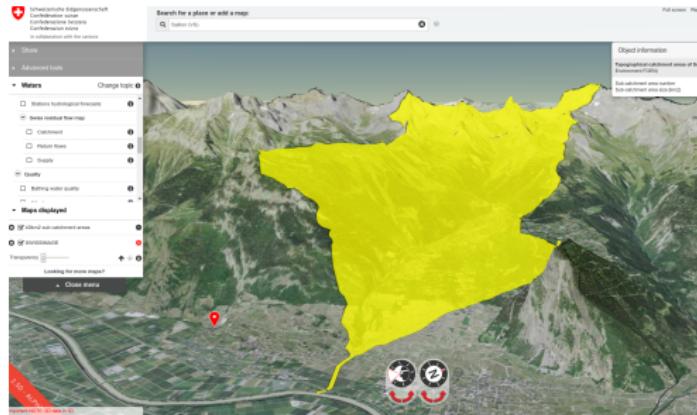
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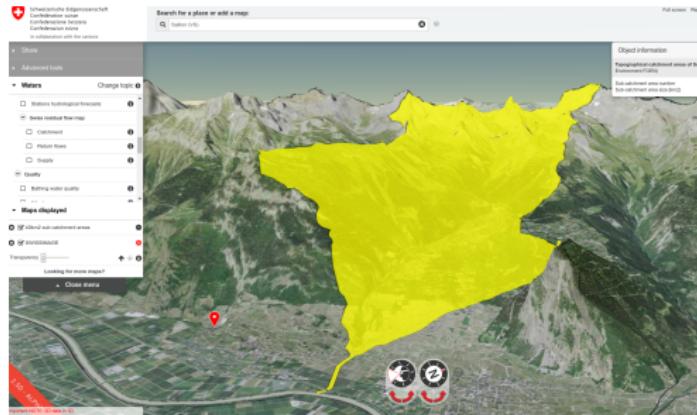
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- ▶ Immersive views

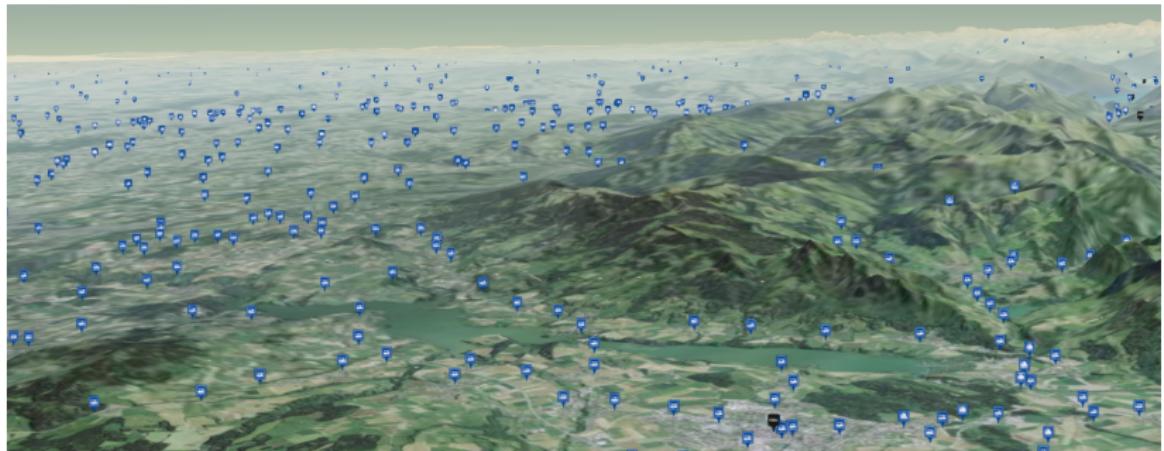
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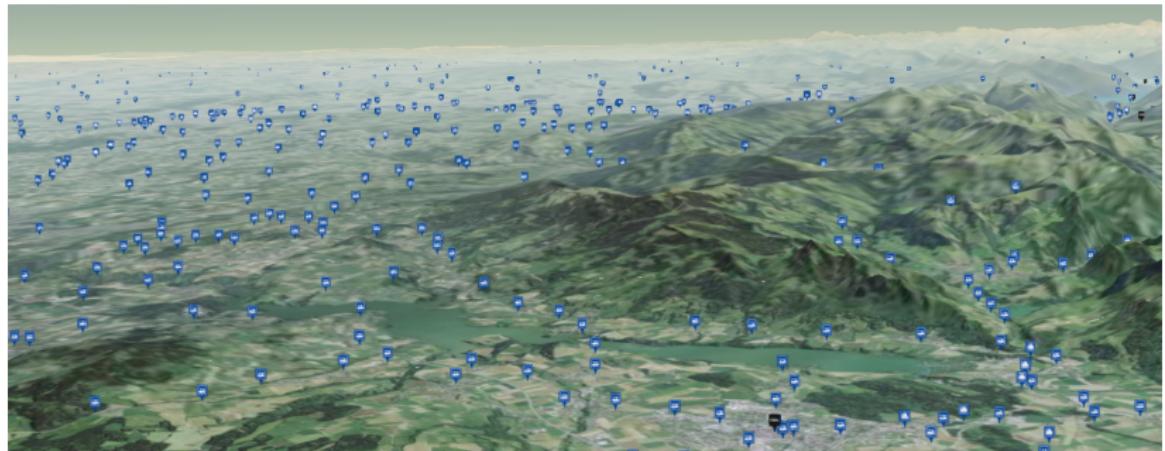
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OL3-Cesium - quality / performance

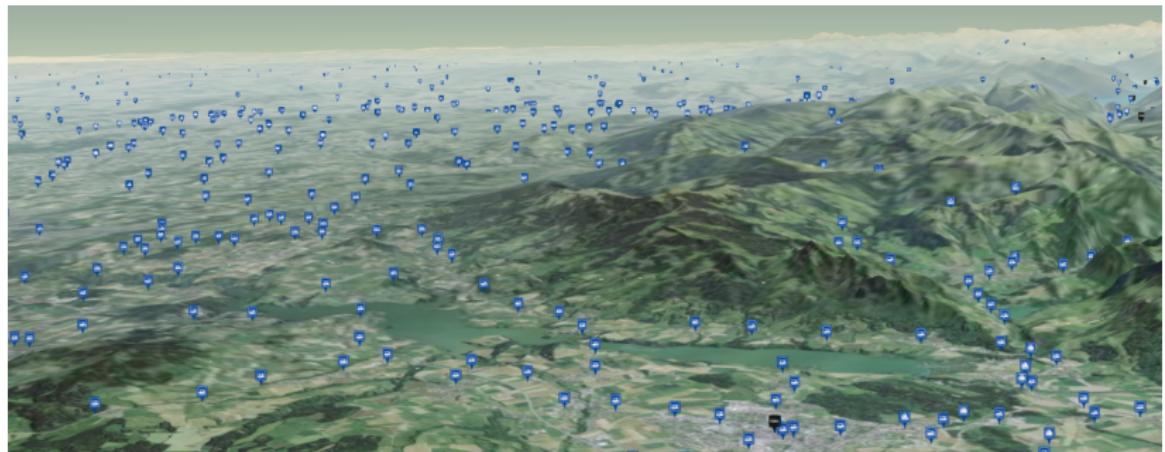


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- ▶ **Vector clustering:** top quality, some geojsons instead of millions of raster tiles
- ▶ **Fog:** reduce details, improve performance

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- ▶ Client side raster reprojection
- ▶ Official extruded polygons/buildings support

Questions?

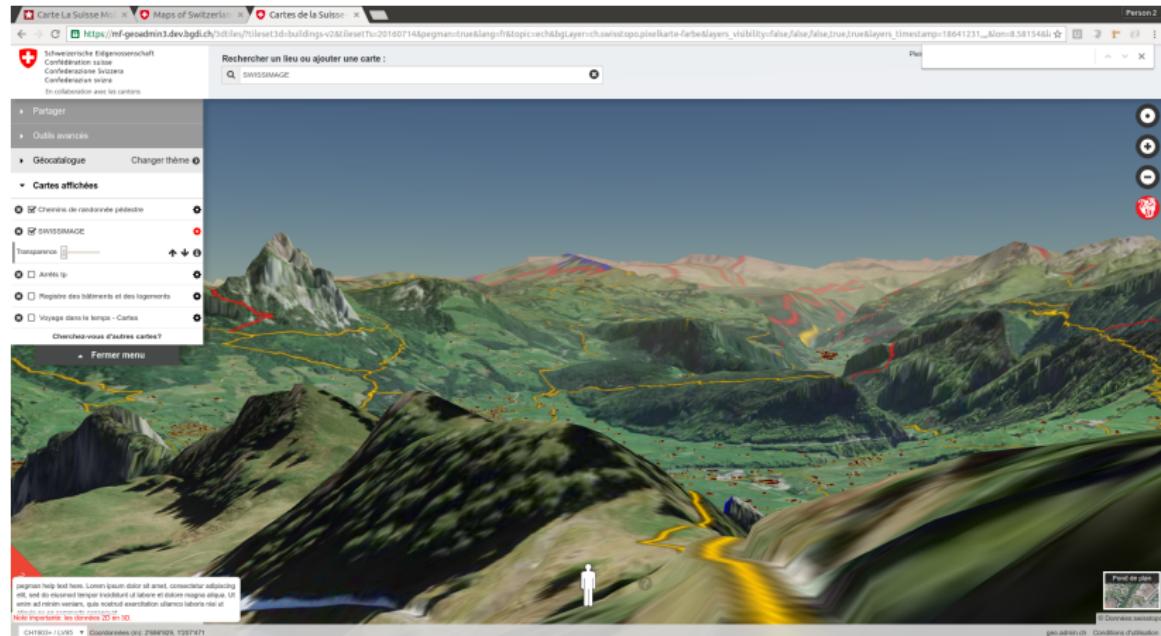
The screenshot shows the GitHub repository page for 'openlayers / ol3-ceesium'. The repository has 815 commits, 5 branches, 20 releases, and 14 contributors. The latest commit was made a day ago. There are buttons for creating new files, uploading files, finding files, and cloning or downloading the repository.

Commit	Message	Date
gberaudo committed on GitHub	Merge pull request #383 from openlayers/update_externs	a day ago
build	Port to OL 3.17.1 (typedefs, renamed symbols)	a month ago
cesium @ 9b20bee	Port to Cesium 1.24	11 days ago

- ▶ Thank you for your attention
- ▶ Danke - Questions?

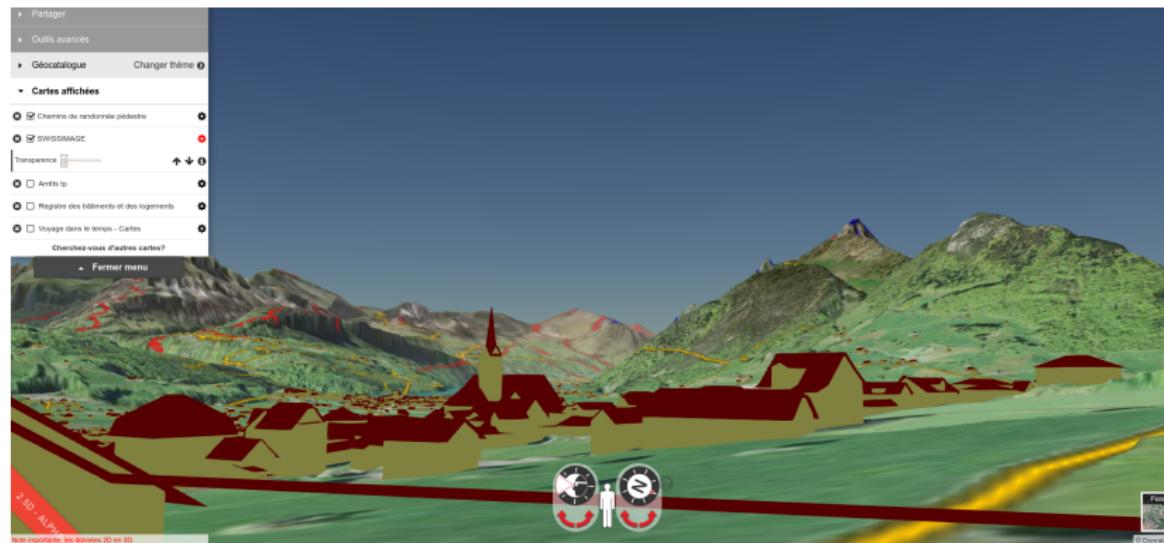
OL3-Cesium - Immersive views

View from a mountain trail

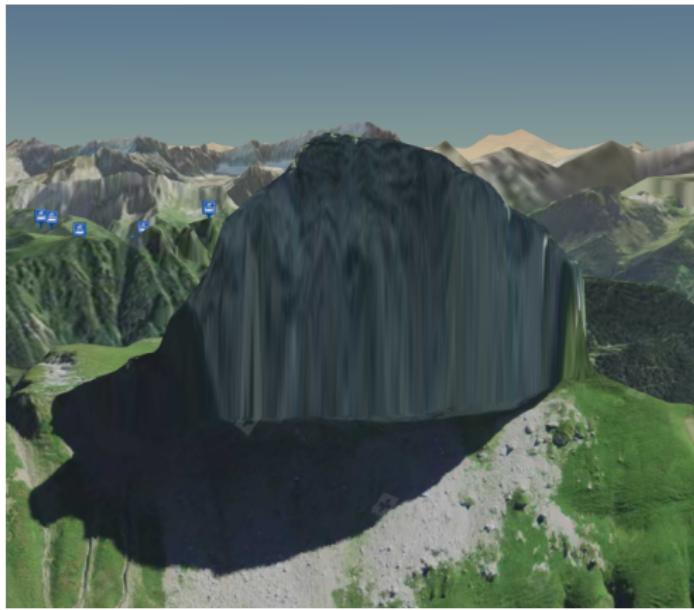


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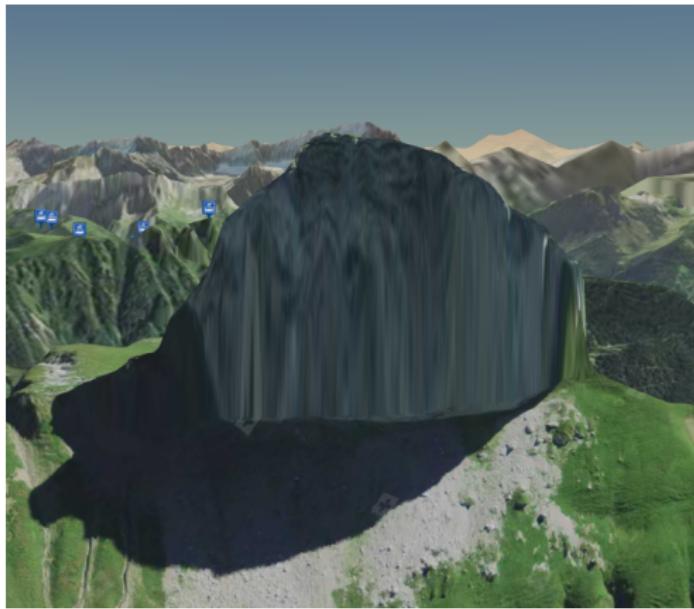
View through a window



Future: 3D imagery



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- ▶ We need more precision where the terrain is steeper

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- ▶ We need multi-view capture of imagery (not just top-down)

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