

OL3-Cesium: 3D for OpenLayers

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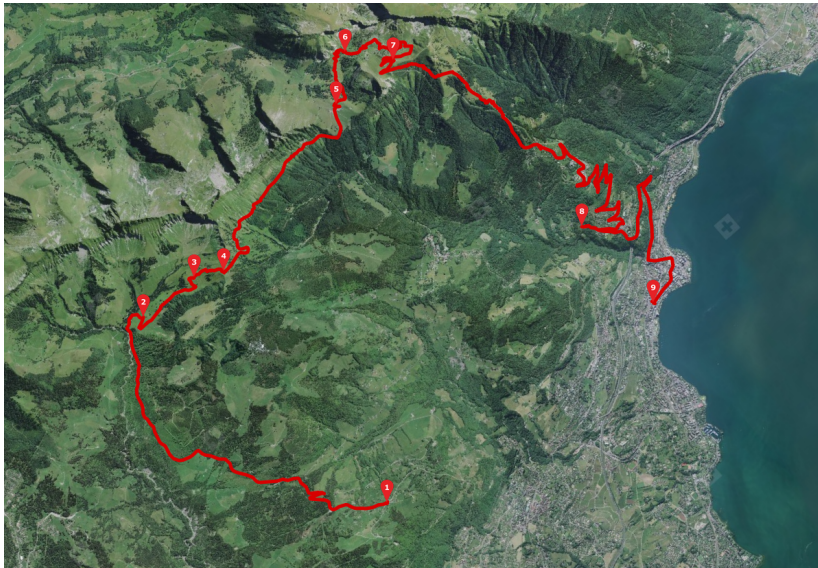
FOSDEM 2016, January 31st

Goal

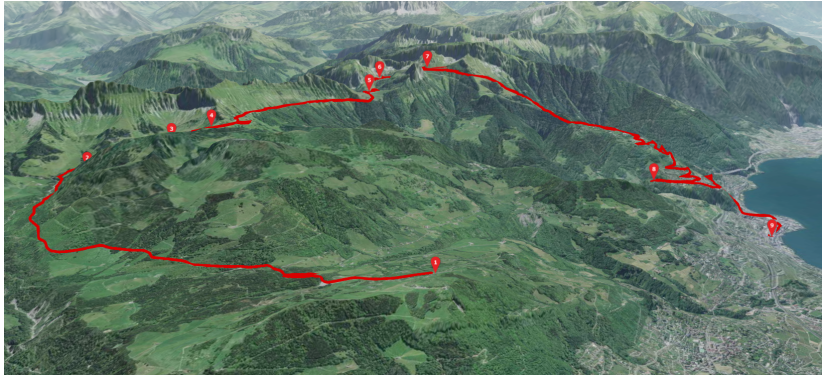


JS library to synchronize an OL3 map and a Cesium 3D globe

OL3 - 2D map, pixel perfect, Swiss projection



Cesium - 3D globe, WEBGL, latlong



Schweizmobil 3D

Getting started

- ▶ `ol3d = new olcs.OLCesium({map: map})`
`ol3d.setEnabled(true)`
 - ▶ A Cesium globe is created
 - ▶ Existing layers and view are synchronized
 - ▶ Some listeners are registered
- ▶ Demo

Manipulate OL3, get the work done

- ▶ Adding a new layer: `myOl3Map.addLayer(...)`
- ▶ Adding a feature: `myOl3Source.addFeature(...)`
- ▶ Removing a feature: `myOl3Source.RemoveFeature(...)`
- ▶ Changing a feature style: `myOl3Feature.setStyle(...)`

Keep in mind

- ▶ Reprojection (mind rasters!, `olcs.AbstractSynchronizer`)
- ▶ Features in 3D (mind polylines! `clampToGround`)
- ▶ Clustering ([ol3-cluster-tool](#), GPU decimation)
- ▶ Fog (30% bandwidth saving + less latency)
- ▶ Eager/lazy loading (pay when you use)
- ▶ Pausing renderloop (don't drain battery! CPU: 100% → 5%)

Future

The screenshot shows the GitHub repository page for `openlayers/ol3-cesium`. At the top, there are navigation links for `Code`, `Issues` (45), `Pull requests` (1), `Wiki`, `Pulse`, `Graphs`, and `Settings`. Below these, the repository name `OpenLayers - Cesium integration` is displayed with its URL and an `Edit` link. A progress bar shows the repository's activity: 727 commits, 5 branches, 13 releases, and 12 contributors. Below the progress bar, there are buttons for `Branch: master`, `New pull request`, `New file`, `Find file`, `SSH` (with the URL `git@github.com:openlayers/ol3-cesium`), and `Download ZIP`. The commit history is shown below, with the latest commit by `gberaudo` titled `Merge pull request #315 from gberaudo/prepare_release_v1.12` and dated `Latest commit 62631d2 an hour ago`. The commit list includes `build` (Bundle OL3 with OL3-Cesium, 2 months ago) and `cesium` (Remove deprecated OpenStreetMapManagersProvider, 8 days ago).

- ▶ Keep up with OL3 and Cesium pace
- ▶ Client side reprojection?
- ▶ Have ideas? Want to participate?