

OL3-Cesium: 3D for OpenLayers

An exciting library for bringing 3D to your maps

Guillaume Beraudo

Opensource Engineer
Camptocamp, Switzerland

FOSDEM Geospatial 2015, February 1st

OL3-Cesium library



OL3=Cesium

Third dimension for OpenLayers

- ▶ Easy setup
 - ▶ Stacked: `new olcs.OLCesium({map: map})`
 - ▶ Side-by-side: `new olcs.OLCesium({map: map, target: id})`

OL3-Cesium library

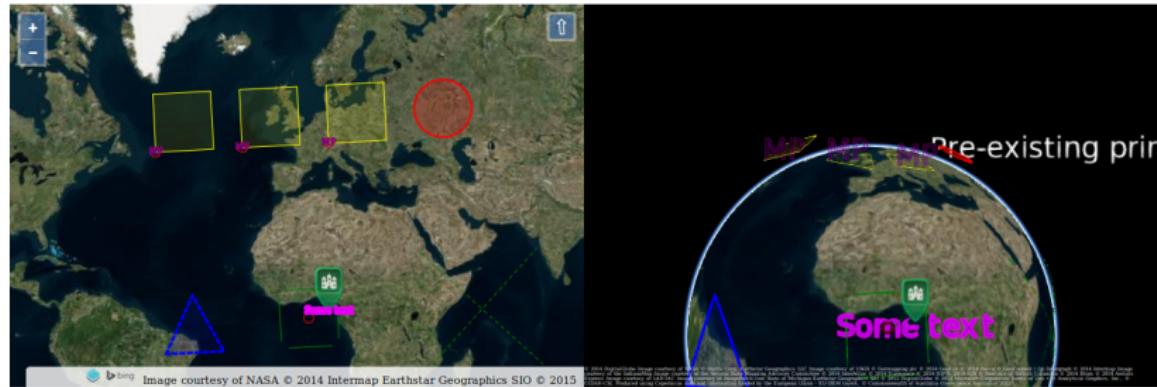


OL3=Cesium

Third dimension for OpenLayers

- ▶ Easy setup
 - ▶ Stacked: `new olcs.OLCesium({map: map})`
 - ▶ Side-by-side: `new olcs.OLCesium({map: map, target: id})`
- ▶ Synchronizers
 - ▶ All automatic by default
 - ▶ May be overridden by application

Synchronizations



ol3-cesium/examples/vectors.html

- ▶ OL3 → Cesium: unidirectional for layers

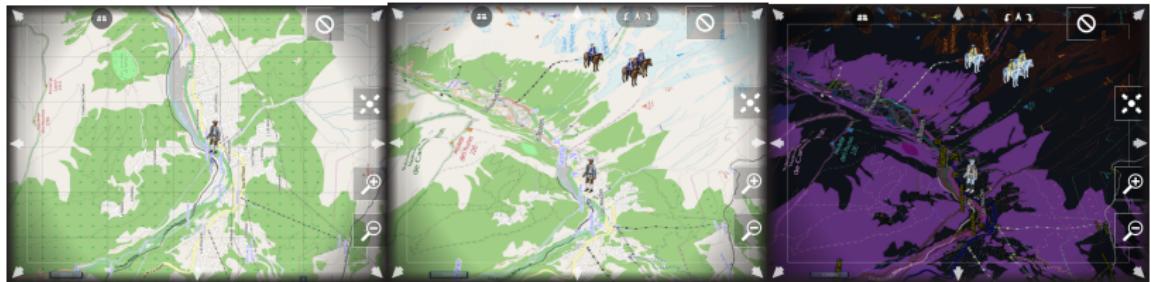
Synchronizations



ol3-cesium/examples/vectors.html

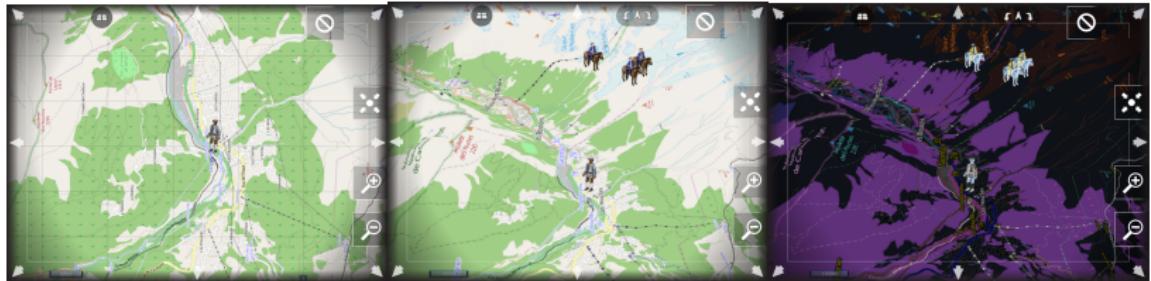
- ▶ OL3 → Cesium: unidirectional for layers
- ▶ OL3 ↔ Cesium: bidirectional for extent, resolution, rotation

Unified 2D/3D interactions



video

Unified 2D/3D interactions



video

- ▶ Shared 2D and 3D views, controls, POI edition
- ▶ Interactions spanning between 2D and 3D

Community

The screenshot shows the GitHub repository page for 'openlayers / ol3-cesium'. At the top, there are buttons for 'Unwatch' (21), 'Star' (34), and 'Fork' (9). Below the header, the repository name 'OpenLayers - Cesium integration http://openlayers.org/ol3-cesium/' is followed by an 'Edit' link. A summary bar shows '408 commits', '3 branches', '2 releases', and '8 contributors'. A progress bar indicates 100% completion. A dropdown menu shows 'branch: master'. The main area displays a list of recent pull requests:

- Merge pull request #162 from gberaudo/handle_features_without_geometry ... by gberaudo, authored 8 days ago, latest commit b5a4687ae0.
- build: Add header to ol3cesium.js and ol3cesium-debug.js by gberaudo, 9 days ago.
- cesium: Update dependencies to Ol3 3.1.1 and Cesium 1.5. by gberaudo, 10 days ago.
- examples: Handle features without geometry by gberaudo, 9 days ago.

On the right side, there are sidebar links for 'Code', 'Issues' (28), 'Pull Requests' (1), 'Wiki', 'Pulse', and 'Graphs'.

- ▶ Started by three companies, 408 commits, 8 contributors

Community

The screenshot shows the GitHub repository page for 'openlayers / ol3-cesium'. At the top, there's a navigation bar with icons for file, repository name, star count (21), fork count (9), and a 'Code' button. Below the header, the repository name is displayed again with a link to its homepage. A summary bar shows 408 commits, 3 branches, 2 releases, and 8 contributors. A progress bar indicates 100% completion. A dropdown menu shows the current branch is 'master'. Below this, a list of recent commits is shown, each with a small icon, author, date, commit message, and a timestamp for the latest commit. On the right side, there's a sidebar with links for 'Code', 'Issues' (28), 'Pull Requests' (1), 'Wiki', 'Pulse', and 'Graphs'.

Author	Date	Commit Message	Latest Commit
gberaudo	8 days ago	Add header to ol3cesium.js and ol3cesium-debug.js	b5a4687ae0
cesium	10 days ago	Update dependencies to Ol3 3.1.1 and Cesium 1.5.	
examples	9 days ago	Handle features without geometry	

- ▶ Started by three companies, 408 commits, 8 contributors
- ▶ Monthly releases, check [CHANGES.md](#)

Community

The screenshot shows the GitHub repository page for `openlayers / ol3-ceesium`. At the top, there are buttons for Unwatch (21), Star (34), and Fork (9). Below the header, the repository name is followed by "OpenLayers - Cesium integration <http://openlayers.org/ol3-ceesium/> — Edit". A summary bar indicates 408 commits, 3 branches, 2 releases, and 8 contributors. A dropdown menu shows the current branch is `master`. The main area displays a list of recent commits:

Author	Date	Commit Message	Time Ago
gberaudo	8 days ago	authored	latest commit b5a4687ae0
build	9 days ago	Add header to ol3cesium.js and ol3cesium-debug.js	
cesium	10 days ago	Update dependencies to Ol3 3.1.1 and Cesium 1.5.	
examples	9 days ago	Handle features without geometry	

On the right side, there are links to Code, Issues (28), Pull Requests (1), Wiki, Pulse, and Graphs.

- ▶ Started by three companies, 408 commits, 8 contributors
- ▶ Monthly releases, check [CHANGES.md](#)
- ▶ Young project where you can have a big impact
 - ▶ Feedback
 - ▶ Issues
 - ▶ Contributions

Future

- ▶ Continue improving policies and code
- ▶ Add more functionalities (features on terrain, night mode, . . .)
- ▶ Keep up with OL3 and Cesium pace
- ▶ Allow even more customizations
- ▶ . . .