

State of TerriaJS

Nick Forbes-Smith | FOSS4G 2022 Firenze

Australia's National Science Agency





Australia's national science agency



One of the world's largest multidisciplinary science and technology organisations



5,200+ dedicated people working across 58 sites globally



State-of-the-art national research infrastructure



We delivered \$7.6 billion of benefit to the nation in FY21



TerriaJS

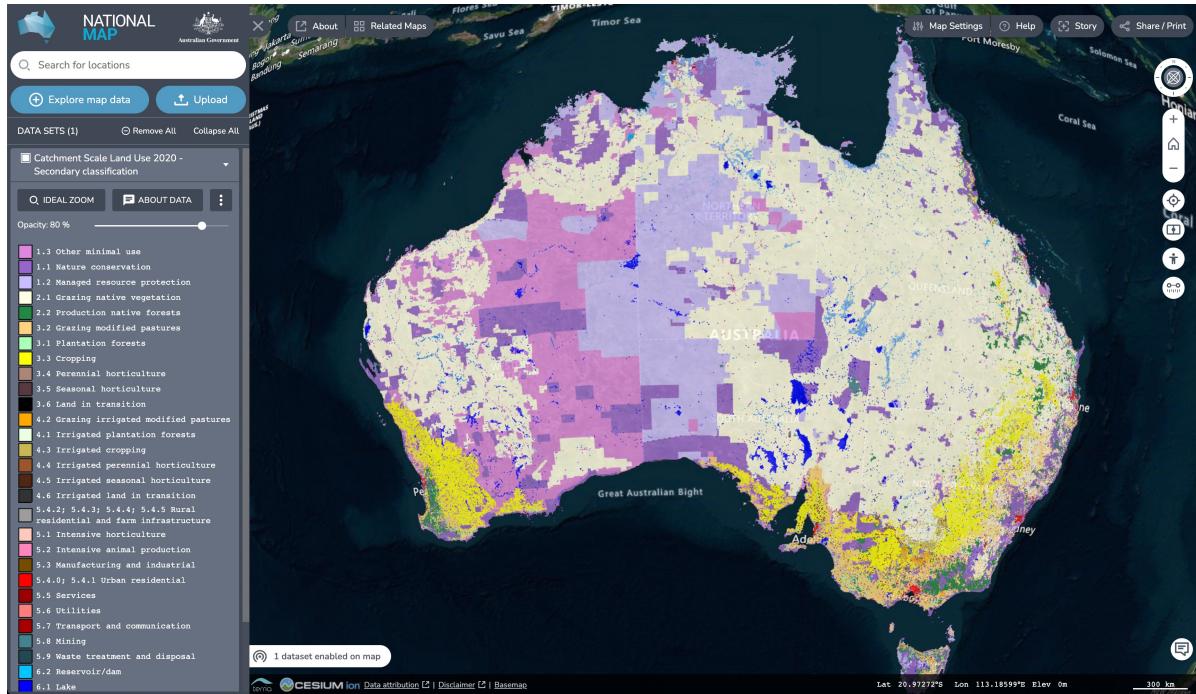
- An open-source framework for web-based geospatial catalogue explorers
- **Cesium/Leaflet** based in-browser tool for looking at 2D and 3D data
- Find us at terria.io



(Australian) NationalMap

nationalmap.gov.au

- Birth of TerriaJS
- Geospatial data discovery, visualisation and sharing
- Launched 2014
- 14,000+ datasets, 30,000+ sessions/month



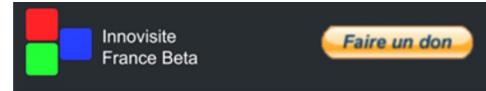


TerriaJS Adoption by Community

Industry



Gov/ Research



NGOs



Food and Agriculture Organization of the United Nations



Open Data Platform





Version 8 release

- Milestone V8 release 12 months ago
- Rewrite from **JavaScript** (knockout.js) to **TypeScript** (React/mobX)
- Becoming more stable/mature
- Thank you to all contributors
 - Especially to Zoran Kokeza!



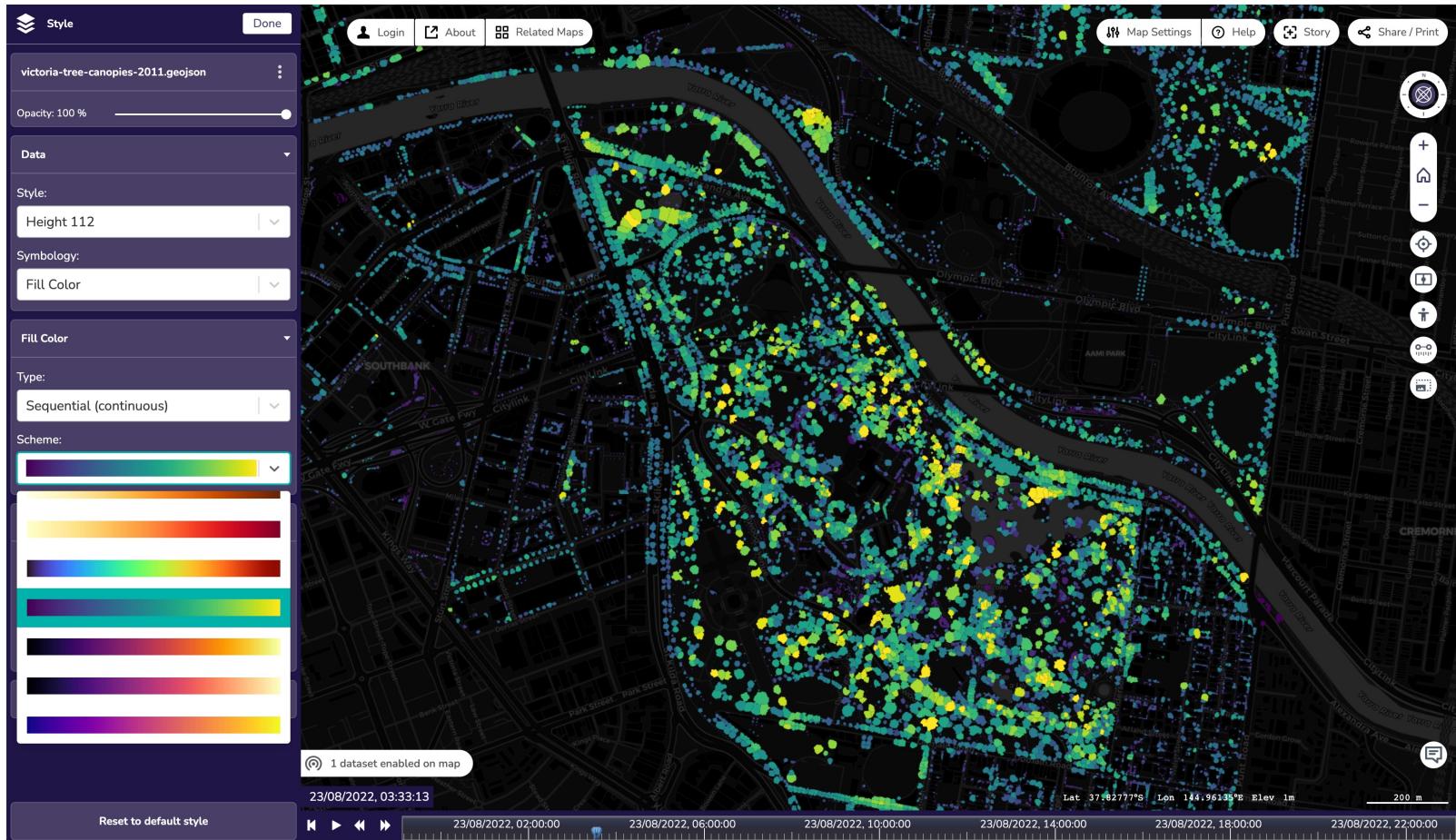
Some notable new features

- Mapbox Vector Tile support using [protomaps.js](#) (+geojson-vt)
- Edit style UI (for vector data)
- 3D clipping box
- 3D compare/splitter
- New Plugin API - github.com/terriajs/plugin-sample



GeoJSON -> MVT + Edit style

vic.digitaltwin.terria.io





Edit style (marker)

vic.digitaltwin.terria.io

The figure shows an aerial map of a city area, likely London, with a grid of streets. Overlaid on the map are numerous traffic lights (represented by red, yellow, and green icons) and white human figures, indicating pedestrian presence or activity. A major river flows through the central part of the map. On the left side, there is a vertical sidebar titled 'Style' with various dropdown menus and settings. At the bottom, a timeline shows dates from 23/08/2022, 03:33:13 to 23/08/2022, 22:00:00.



3D Clipping box

vic.digitaltwin.terria.io

VICTORIA Australia Digital Twin Victoria CSIRO DATA 61

X Login About Related Maps Map Settings Help Story Share / Print

Search for locations

+ Explore map data Upload

DATA SETS (1) Remove All Collapse All

Sunbury Train Station BIM

IDEAL ZOOM ABOUT DATA :

Opacity: 100 % Shadows: None

Clip model Show clipping box Above ground only

Clip direction: Clip inside the box

1 dataset enabled on map

23/08/2022, 03:33:13

Lat 37.57908°S Lon 144.72860°E Elev 214m 5 m

23/08/2022, 02:00:00 23/08/2022, 06:00:00 23/08/2022, 10:00:00 23/08/2022, 14:00:00 23/08/2022, 18:00:00 23/08/2022, 22:00:00



3D Compare/Splitter

vic.digitaltwin.terria.io

Digital Twin Victoria

Search for locations

+ Explore map data Upload

DATA SETS (1) Remove All Collapse All

SPLIT SCREEN MODE X

Show Terrain on the

Left Both Right

Terrain hides underground features

Melbourne Central 2021 3D Photomesh

Q IDEAL ZOOM ABOUT DATA ...

Opacity: 100 %

Left Both Right

Shadows:

None

Clip model

1 dataset enabled on map

23/08/2022, 03:33:13

23/08/2022, 02:00:00 23/08/2022, 06:00:00 23/08/2022, 10:00:00 23/08/2022, 14:00:00 23/08/2022, 18:00:00 23/08/2022, 22:00:00

Map Settings Help Story Share / Print

Zoom controls: +, -, Home, Reset, Pan, Clip, Measure, Map, Satellite, Street View, Layers

Coordinates: Lat 37.81957°S Lon 144.96557°E Elev 0m 20 m

Timeline controls: back, forward, play, stop



Future plans

- Story v2.0
- Imagery Compare/Splitter v2.0
- Catalog search by location
- Upgrade to TypeScript 4.x
- Mobile support...
- Improve documentation...



My other talk!

Exploring the World's Open Data Portals

Discovery, Visualisation and Analysis of Open Data with TerriaJS

Friday 12:30–13:00 in Room 4

Links

- terria.io
- github.com/terriajs
- nationalmap.gov.au
- vic.digitaltwin.terria.io