

# Carmenta Server 4.8

## 3D EXTENSION

- Enables interactive 3D maps with dynamic loading of data.
- On the fly generation of 3D worlds straight from 2D / 3D GIS data in any format supported by Carmenta Server (such as OGC WMS/WMTS), together with a Cesium quantized mesh terrain service - no 3D modelling is needed.
- Additional support for detailed city models etc. with Cesium 3D Tiles services.

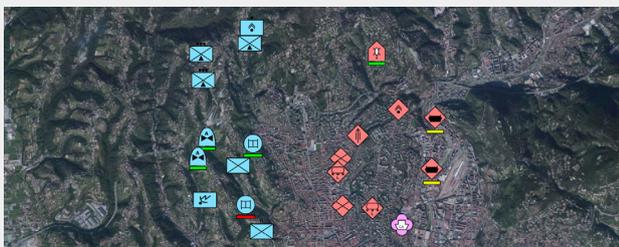


## VECTOR TILES EXTENSION

- Allows fast vector maps by supporting tiled and cached vector data on the Mapbox Vector Tiles (MVT) format, either encoded as highly compressed Google Protocol Buffers (Protobuf) or plain GeoJSON.

## TACTICAL EXTENSION

- Extension for managing and visualising tactical symbols according to the DOD MIL STD-2525 and NATO App-6 standards.

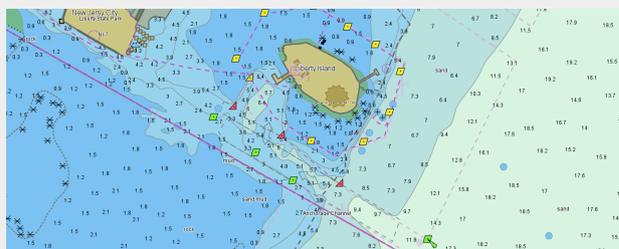


## MILITARY GEODATA FORMATS EXTENSION

- Adds functionality for reading military geographic data in CMRG (PCMap), DFAD and RPF (CADRG and CIB) formats.

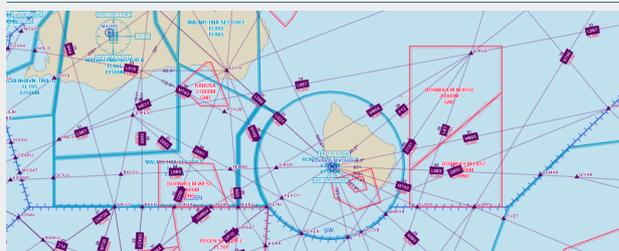
## NAUTICAL CHARTS EXTENSION

- Extension for reading and rendering Nautical Charts according to the IHO S-57, S-63 and S-52 standards.
- Reads and portrays both ENC and NATO AML data.



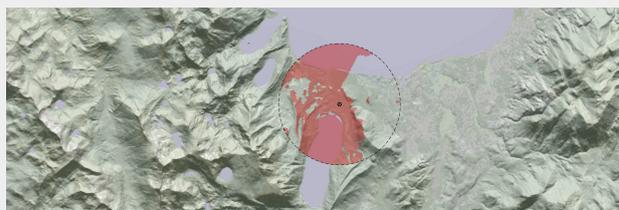
## C-MAP NAUTICAL CHARTS EXTENSION

- Adds support for reading C-MAP CM93 nautical charts and visualising them according to the IHO S-52 standard.



## AERONAUTICAL DATA FORMATS EXTENSION

- Reads aeronautical navigation database files on the ARINC SPECIFICATION 424- 16, 424-17 and 424-18 formats, as well as the AIXM 5.1 and 5.1.1 formats.



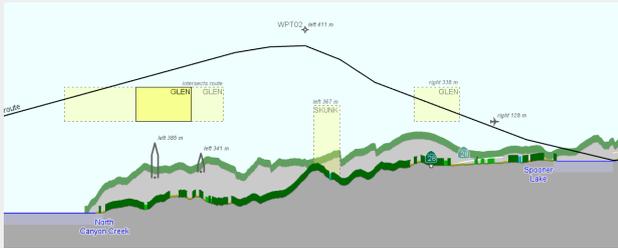
## VISIBILITY ANALYSIS EXTENSION

- Extension for performing visibility calculations such as line of sight.

<sup>1</sup> S-63 encrypted Nautical Charts require explicit permission from the data provider if published as map services on a web map server.

### VERTICAL PROFILE EXTENSION

- Generates a vertical profile along routes, cutting through both terrain and vector data sources such as airspace.



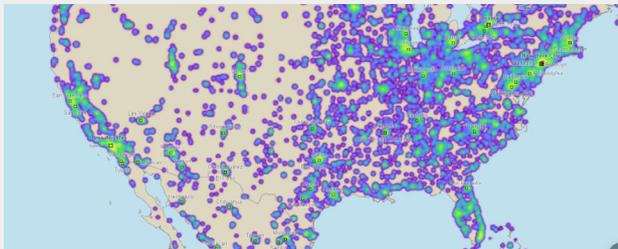
### VERTICAL CLEARANCE EXTENSION

- Calculates the terrain and obstacle clearance in a corridor around routes.



### HEATMAP EXTENSION

- Adds functionality for dynamically generating point density rasters which can be visualised as heatmaps.



### SPATIAL DATABASES EXTENSION

Extension for reading geospatial data from different types of databases:

- Microsoft SQL Server Extension
- MySQL Extension
- Oracle Spatial Extension
- PostgreSQL/PostGIS Extension

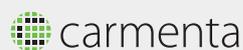
### TERRAIN VEHICLE ANALYSIS EXTENSION

- Extension for calculating how ground-based manned and autonomous vehicles can interact with the terrain and the roads.
- Makes it possible to calculate optimal off-road routes for terrain vehicles based on ground conditions, operational constraints and vehicle characteristics.
- Provides information on the terrain accessibility, through the calculation of isochrones (travel times) or local speeds.



### CAD DRAWINGS EXTENSION

- Extension for reading AutoCAD CAD databases in DWG and DXF file formats.



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