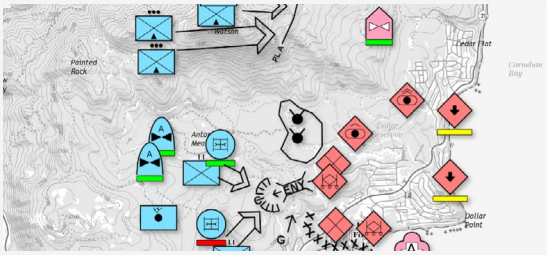
EXTENSIONS

carmenta

Carmenta Engine 5.16

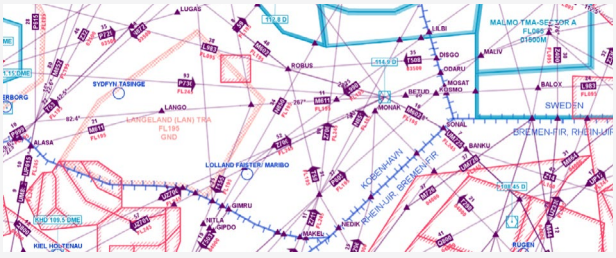
TACTICAL EXTENSION

Supports tactical symbols and graphics according to the MIL-STD-2525 and STANAG 2019 APP-6 standards and contains a multitude of features that facilitate the development of C4ISR applications.



AERONAUTICAL 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. Used together with terrain analysis extension it is suitable for building aeronautical mission planning systems.

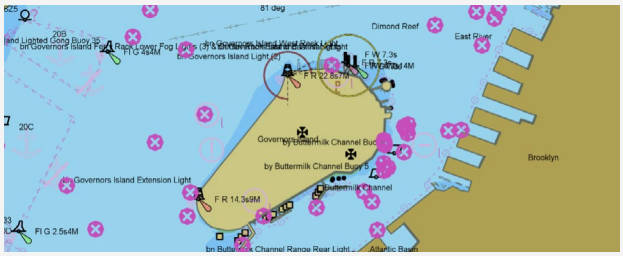


3D EXTENSION

Generate realistic 3D environments using any 2D or 3D geospatial data format supported by Carmenta Engine. The 3D ground surface is generated on the fly using either elevation raster data or 3D meshes and can be textured with any combination of 2D map layers.

NAUTICAL CHART EXTENSION

Provides native, high-performance reading and rendering of maritime data according to the International Hydrographic Organisation (IHO) S-57, S-63 and S-52 standards, and adds support for reading C-MAP CM93 nautical charts and visualising them according to the IHO S-52 standard.

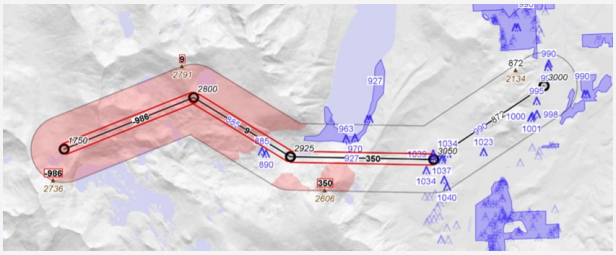


VEHICLE ANALYSIS EXTENSION

You can calculate how ground-based manned and autonomous vehicles can interact with the terrain and the roads. This makes it possible to calculate optimal off-road routes for terrain vehicles based on road and ground conditions, operational constraints, and vehicle characteristics, and you can calculate flight paths for UAVs in a similar fashion.

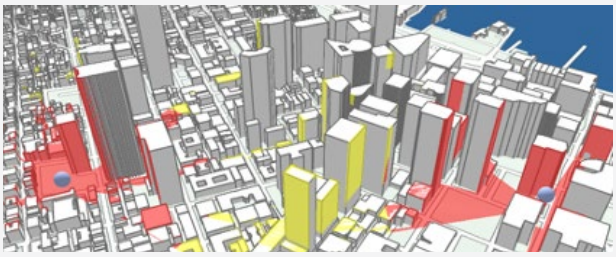
TERRAIN ANALYSIS EXTENSION

Provides a highly configurable functionality to calculate the terrain and obstacle clearance along flight routes and enables you to apply a colour-coded terrain awareness visualisation to both 2D maps and 3D environments. You also get access to a vertical view of defined routes that can be a key feature in a lot of aeronautical applications, as well as mission panning or battle management systems for ground-based vehicles.



VISIBILITY EXTENSION

The line-of-sight calculation uses elevation data to compute the regions that have a free line of sight to the position of an observer. The computation is extremely rapid and is designed to be computed on the fly for moving objects and can easily be extended with your own algorithms for calculating radio coverage. There is also possible to calculate viewshed volumes that can be merged into a combined volume that represents airspace covered by observers.



METEOROLOGICAL EXTENSION

Read meteorological data in the GRIB format, and the output can be used as any raster in Carmenta Engine, either for direct visualization, or as input to other geoprocessing operators.

RADAR VIDEO EXTENSION

Display radar plot overlays, radar intensity displays and other highly dynamic layers. Thanks to a highly optimized, GPU accelerated rendering pipeline, these extensions can handle millions of continuously moving objects.

GEOREFERENCED VIDEO EXTENSION

Real time video overlays can provide a crucial advantage for UAV Ground Control Stations and other systems that manage tactical video intelligence. Overlaying a live video stream onto a map, from a UAV or other source, significantly increases the usability of the video, as everything that happens in the video is immediately georeferenced.

PLOT EXTENSION

Display highly dynamic layers thanks to a highly optimized, GPU accelerated rendering pipeline, this extension can handle millions of continuously moving objects.

ABOUT CARMENTA

Carmenta provides software tools to empower visualization and analysis of dynamic geospatial information in time-critical applications. Our powerful technology is deployed across the world, by system providers in defense, unmanned systems, maritime, and public safety sectors.

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