carmenta

What's New in Carmenta Server 4.6

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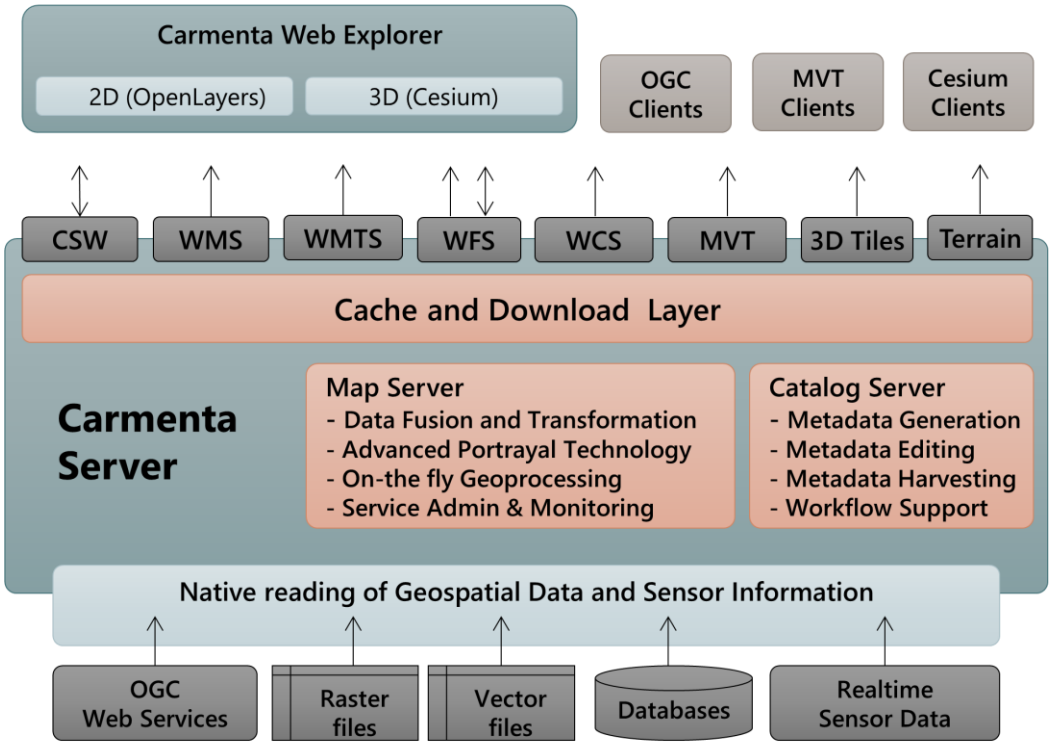
The Web Map Server for Windows Server

Carmenta Server 4.6 is the new minor update to Carmenta's successful web map server for Windows Server deployment. For Docker container deployment, please refer to the new Carmenta Server Core product version.

The new minor update contains the same scalable architecture as before based on the Carmenta Engine map server runtime, which provides high performance and reliability. The codebase has now been moved to the open-source frameworks .NET Core and ASP.NET Core. Furthermore, the 3D and Vector Tiles interfaces have had additional functionality added to them.

.NET Core and ASP.NET Codebase

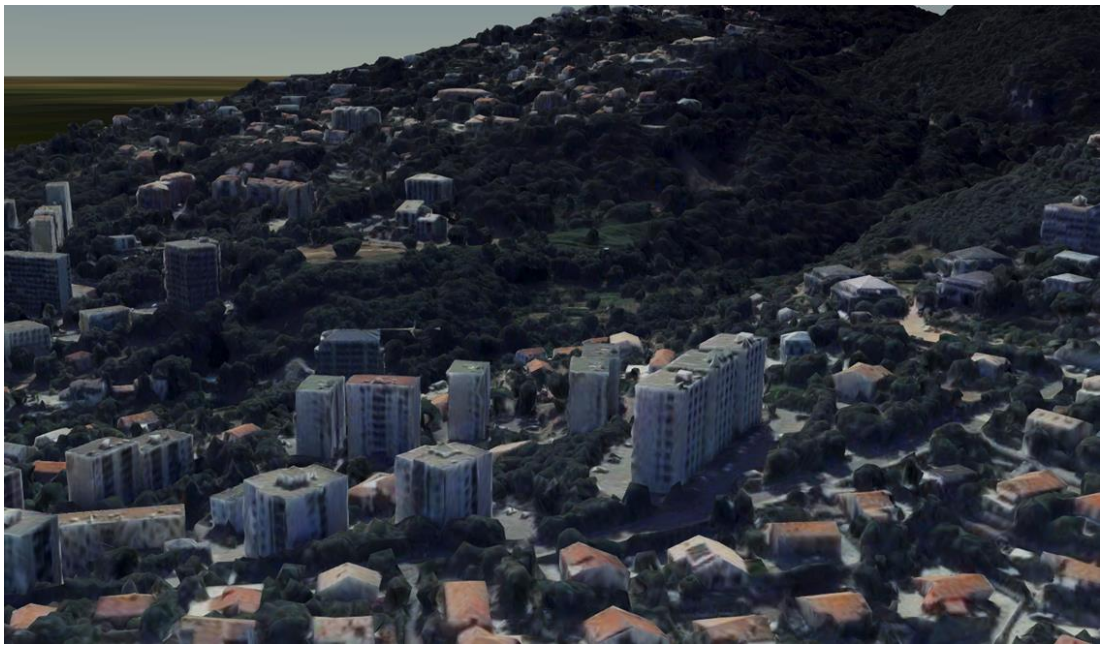


The codebase for Carmenta Server 4.6 has been moved to the open-source frameworks .NET Core and ASP.NET Core. The modern Core versions of the Microsoft frameworks are developed together by Microsoft and the open-source community, and offer advantages such as:

- Lighter and more streamlined runtime
- Improved performance
- More flexible updates and maintenance
- Open-source contributions
- Modular architecture

The codebase is shared with the new product version Carmenta Server Core, which is targeting Docker containers. This allows both Carmenta Server product versions to take advantage of the same stable codebase, while allowing both to benefit from new, shared features in the future.

Improved 3D Support



The support for 3D has been improved in Carmenta Server 4.6 through the following:

- **New 3D Tiles service**

  The 3D Tiles service allows 3D web map clients to consume detailed 3D geospatial datasets such as detailed city models and building polygons. The data sources can either be complete detailed 3D models (see below), or a combination of elevation data and vector data, which may be used to generate objects, for instance buildings.

- **Optimised Cesium terrain service**

  The Cesium terrain service has been replaced with a quantised-mesh terrain service, which offers higher performance and lower bandwidth needs.

- **Improved support for 3D models**

  3D Tiles may be generated from several different 3D models, including COLLADA, OpenFlight, glTF and OBJ 3D.

Extended Vector Tiles Support

The Vector Tiles service support in Carmenta Server has been extended with the following new functionality:

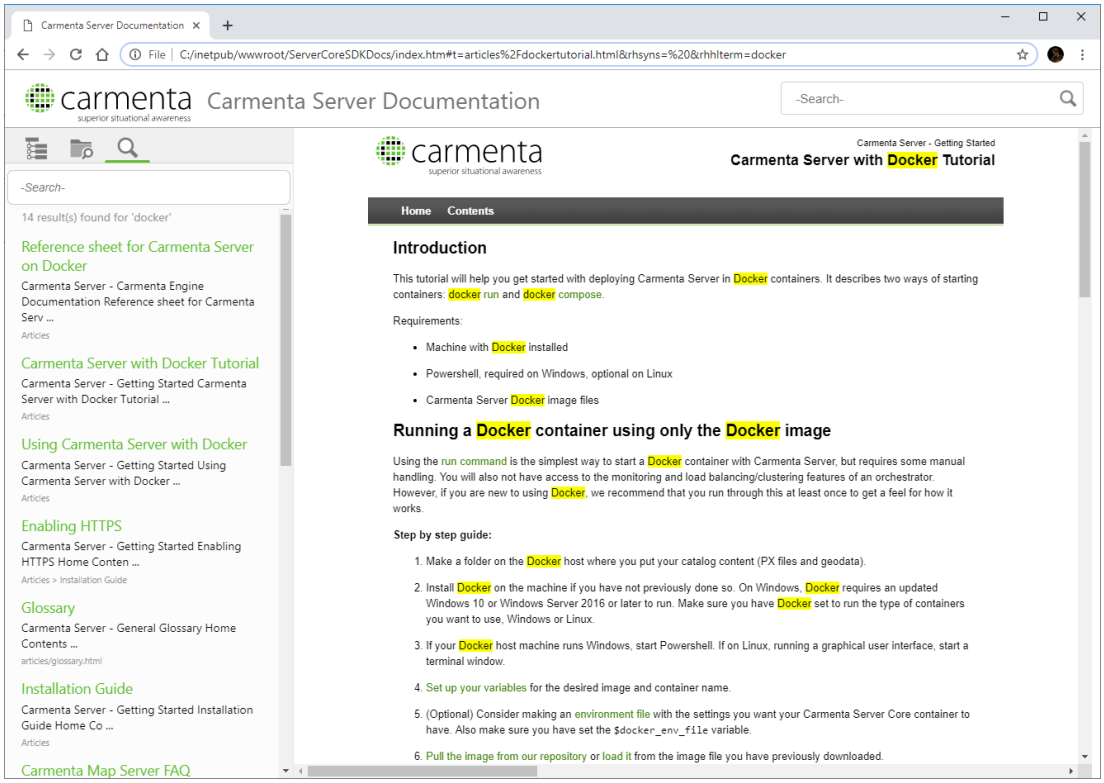
- **Improved integration with Carmenta Engine-based clients**

  Carmenta Engine-based applications can now consume Vector tiles services published by Carmenta Server, including styles information. By further making use of the Symbols and Visualisation services in Carmenta Server, Carmenta Engine-based applications can consume Carmenta Server's Vector Tiles services with a minimum of client-side configuration required, allowing excellent re-use of server-resources.

- **MBTiles file reader**

  The data source for Vector Tiles services now includes local vector tiles data from MBTiles files, in addition to other vector data sources.

Browser-based Documentation



The documentation for Carmenta Server 4.6 is now delivered as a set of HTML files, allowing it to be viewed in any web browser. The HTML files can easily be searched for relevant keywords and definitions, and navigation in the pages is greatly simplified with the support for multiple browser tabs.

Miscellaneous Improvements

The following additional improvements have been made in Carmenta Sever 4.6:

- Updated Carmenta Engine runtime, to latest version 5.12
- Support for reading Raster Attribute Tables
- Support for generating Vertical Profiles using thematic raster data