

What's New in Carmenta Engine 5.5

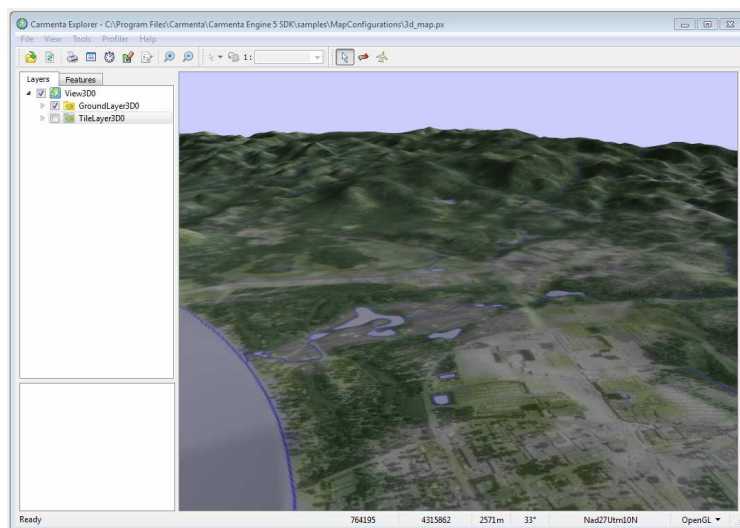
The new version of Carmenta Engine makes it much easier to configure great looking 3D maps. It also features built-in support for multi-touch interactions and high DPI displays.

For a full list of the features and improvements in this release, refer to the release notes that are included in the installation packages.

Streamlined 3D Configuration

The new `GroundLayer3D` class greatly simplifies the common use case of draping 2D map layers on top of a mesh generated from elevation data.

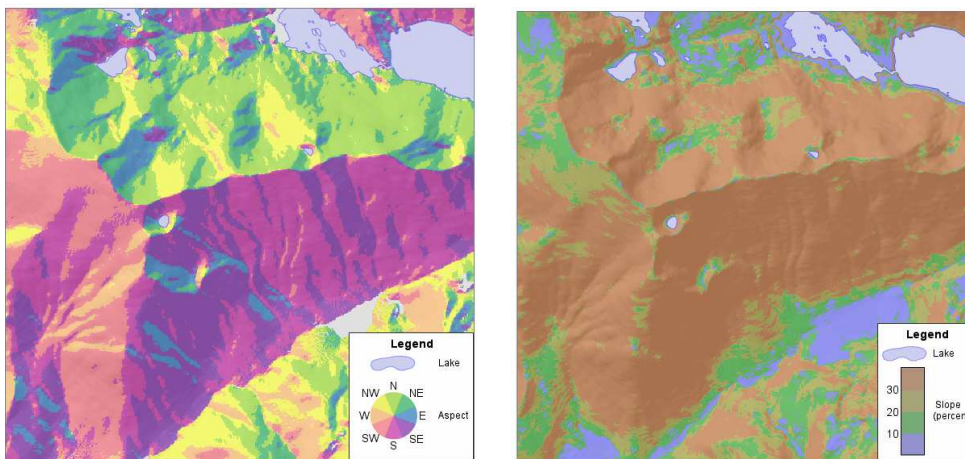
The picture below shows an example `GroundLayer3D` configuration in Carmenta Studio, along with the resulting map in Carmenta Explorer.



Slope and Aspect Calculation

The new SlopeOperator class makes it trivial to visualize the terrain slope and aspect from any supported elevation data source.

The pictures below show two examples of SlopeOperator output.



Built-in Support for Common Touchscreen Interactions

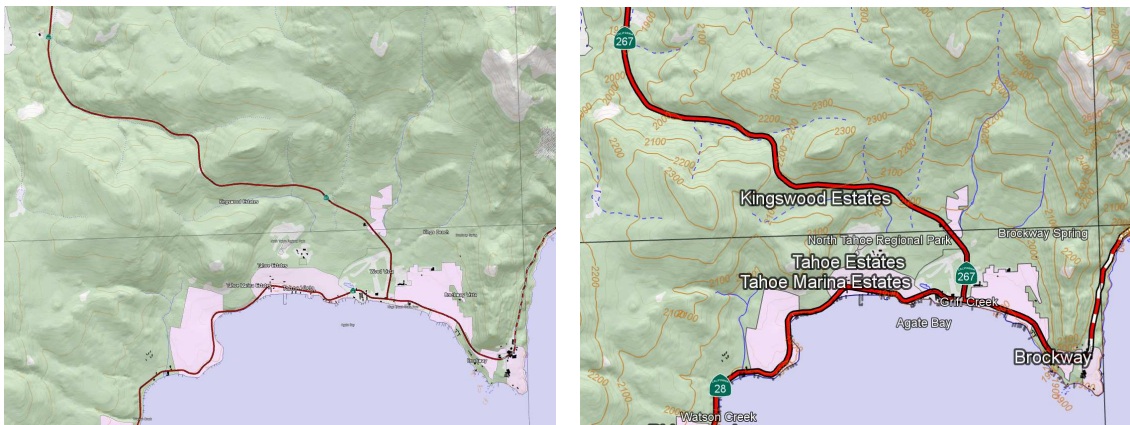
The new MapControl.TouchTool property gives applications an easy way to control what will happen when the user interacts with the map using a touchscreen.

The StandardTouchTool class provides out-of-the-box support for navigating and editing objects using common multi-touch gestures, while the CreateTouchTool can be used to let users create new objects.

Easily Adapt the Visualization to High DPI Displays

Carmenta Engine Views can now easily be adapted for use on displays with very high pixel density using the new `PixelSizeAdjustments` class.

The two pictures below shows the same map rendered on a very high resolution display, with and without the pixel size adjustments applied.



Support for New Operating Systems

Just like the Windows version of the SDK, Carmenta Engine for Linux is now available in a 64 bit version. The 64 bit Linux version supports both the Ubuntu, Red Hat and SUSE distributions.

Additionally, Carmenta Engine for Linux is now fully tested on Ubuntu 12.04 LTS.

Other Notable Improvements

Simplified Raster Data Handling

Carmenta Engine 5.5 will in most cases automatically connect, merge and resample raster data when it is needed – it is no longer necessary to manually specify these processing steps to achieve high fidelity visualization and good performance.

Support for 3D Maps in the DirectX Renderer

The DirectX renderer, which is an alternative to the OpenGL renderer for using hardware acceleration on Windows, is now able to render 3D maps. The most important benefit is that this makes it much easier to display 3D maps in WPF applications.

Improved UTM and MGRS Grid Generation

The UtmGridGenerator class now automatically creates a suitable visualization for the MGRS and UTM grids it generates, minimizing the number of steps required to add such grids to Carmenta Engine based applications.

Simplified interface to the Catalog Extension

The Carmenta Engine Catalog Extension gives Carmenta Engine based applications a structured way to handle background maps and associated metadata. A Catalog can be instantiated either from a local folder or from an OGC CSW service.

In Carmenta Engine 5.5, the interface to Catalog Extension has been greatly simplified. Among other things, it is now possible to create Catalog Maps directly from Carmenta Studio.

Multi-language Map Configuration Metadata

Carmenta Studio now supports editing properties such as `Layer.DisplayName` in multiple languages. A new API makes it easy to retrieve the localized strings in the application.