



DEM/DTM is a digital model or 3D representation of a terrain's surface. It may be represented as Grid data which includes raster format, interpolated values and have large storage for network analysis or in TIN (Triangulated irregular network) data which includes-

- irregularly distributed nodes and lines with three dimensional coordinates (x, y, and z)
- arranged in a network of non overlapping triangles (triangular tessellation)
- Based on Delaunay triangulation
- Density of points \propto variation in surface heights
- (+) points provide accurate representation of terrain
- (+) fewer points are needed
- (-) less suited for analysis of surface slope, aspect and network analysis.

Vricon

DigitalGlobe with its partner Vricon provides accurate and highly detailed geodata to telecommunication industry to improve its coverage, bandwidth and latency while avoiding added interference and managing costs. It includes height data with 50cm to 10m resolution, clutter maps, terrain data, geographic map data and Ortho-image, which has produced with a unique automated technology, based on commercial satellite imagery without ground control points.

Features

- Global coverage
- Superior accuracy
- Market-leading resolution
- Rapid deliveries
- Covers all terrain types

Accuracy

- Absolute:
 - 3m SE90
 - 3m CE90
 - 3m LE90
 - 1.8m SEP
- Relative:
 - 1m SE90
- Valid on all surfaces and terrain types
- Valid without using ground control points
- SE90 = Spherical Error 90%, a tough measure that combines CE90 and LE90.

Exploitation

- Standalone through Vricon Explorer
- In ESRI ArcMap with the Vricon plugin
- In any system through integration
- Through standard data formats

It has advantage over the others elevation data which reflects in its results, as shown in the following image.

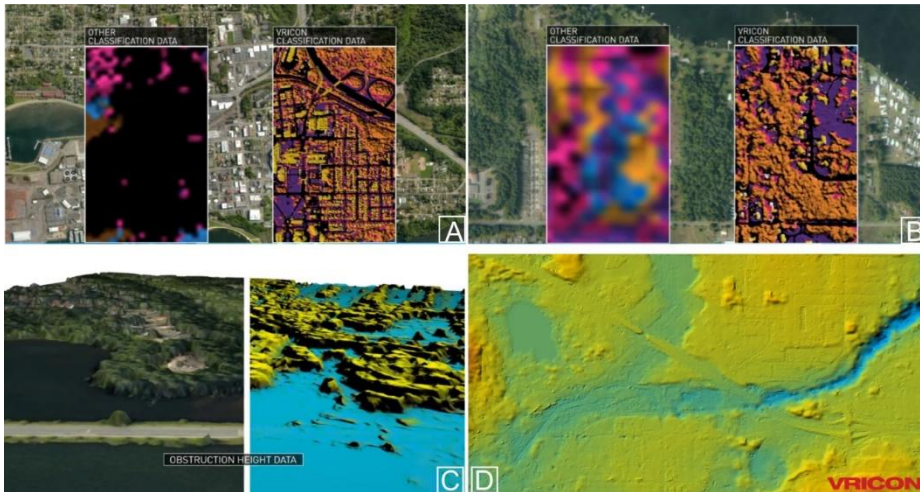


Figure A and B shows the differences in Vricon and other classification data, figure 3 and 4 represents height and terrain data respectively.

Specifications

- Resolution: 0.5m
- Textures: True photorealistic textures on all sides of buildings and terrain features
- Data size: Typically 1.5 - 2.0 MB/km²
- Delivery: Online via the Vricon cloud, FTP or HDD
- Data Format: A TIN mesh with real textures, optimized for secure and lightweight streaming of large datasets. Other formats available upon request.