



## MetaVR releases Terrain Tools 1.6

*MetaVR's Terrain Tools for Esri® ArcGIS® for Desktop enables users to turn their geospatial data into real-time 3D terrain to render in MetaVR's image generator, Virtual Reality Scene Generator.*

**Brookline, MA, 21 September, 2020:**

MetaVR announces the release of [Terrain Tools version 1.6](#), with a host of new features. Terrain Tools is MetaVR's extension to the industry standard Geographic Information System (GIS) platform, Esri® ArcGIS® for Desktop, that enables users to turn their geospecific data into real-time 3D terrain for rendering in MetaVR's image generator software, Virtual Reality Scene Generator (VRSG).

Terrain Tools combines powerful 3D terrain building functionality with an accessible and intuitive interface that enables users to create real-time terrain for simulated military and civil training scenarios in MetaVR's Metadesic round-earth terrain format.

Terrain Tools 1.6 adds new features and enhancements including:

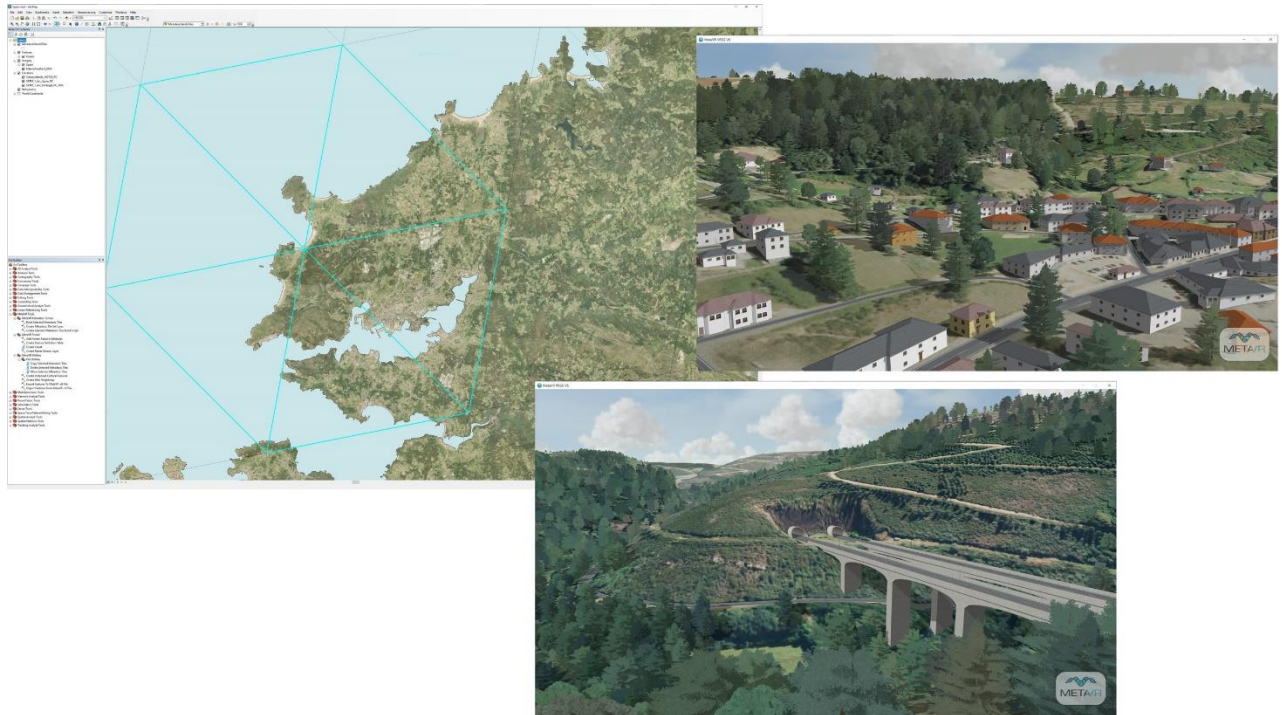
- The ability to recompile an existing 3D terrain's cultural features (such as models, instances, lights, and fences) without having to recompile the terrain and textures;
- The addition of a new feature type for compiling extruded building features using an Esri CityEngine rule package (.rpk) to enable adding large areas of dense culture to 3D terrain quickly and easily in order to simplify workflow;
- The colorization of tree models and other vegetation by automatic color matching of the models with underlying geospecific imagery, resulting in increased realism and suspension of disbelief to flight simulations;
- Improved coastline rendering, with the surface depth along a coastline now computed as a function of the distance to the coastline and bathymetry source data no longer required to generate a bathymetry surface;
- The addition of a new tool to create a raster image from compiled terrain for cases where a heightmap is needed. Such cases include using the raster as input to CityEngine;
- An improvement to rendering levels of detail (LODs) with a new technique that smooths LOD transitions while reducing triangle count by over 20%;
- Performance enhancements for large areas of instanced trees via LOD probability weights specified in a JSON file and support of the LOD\_Scale feature attribute;
- Performance and navigation improvements to the Build Manager interface;
- Runway improvements to better support fitting multiple geometry layers within a runway model to the curvature of the earth and terrain profile.

Using Terrain Tools version 1.6, MetaVR has built a new high-resolution 3D terrain dataset of [Spain](#) as part of its coverage of Europe. The geospecific round-earth terrain was built with 0.50 mpp

resolution source imagery and SRTM1 (30m) elevation source data covering the entire country, and bathymetry data of the northern/western Spain coastline. It includes areas of high-resolution insets of Lugo province in the Galicia region of northwest Spain and Los Llanos Albacete Air Base (LEAB) in Albacete province in central Spain.

Terrain Tools 1.6 is available to MetaVR customers on Terrain Tools active maintenance. The new version supports all advancements in the latest ArcGIS for Desktop version 10.8.

Terrain built with the new features of Terrain Tools version 1.6 requires the latest release of VRSG 6.4.



*Image: Upper left: MetaVR Terrain Tools 1.6 view of northwest Spain within Esri ArcMap. Right: two VRSG views rendering the terrain of Lugo province in the Galicia region of northwest Spain. Upper view shows the rendered town of Pedrafita do Cebreiro. (MetaVR image).*

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## About MetaVR

MetaVR, founded in 1997, develops commercial PC-based software for the military simulation and training markets, featuring high-speed 3D visualization content and rapid creation of networked virtual worlds using real-world data. MetaVR's real-time visual systems provide the fidelity of geospecific simulation with game-quality graphics. Users can build (with real-world photographic imagery, elevation data, and feature data) high-fidelity virtual worlds with our terrain generation tools, and render in real time, at 60Hz frame rates, the resulting virtual world with our real-time 3D visualization application, Virtual Reality Scene Generator. MetaVR systems are used for applications such as UAS/RPA trainers, manned flight simulators, mission planning and rehearsal, joint fires and JTAC simulation training, urban operations training, and emergency response management training. For more information, visit [www.metavr.com](http://www.metavr.com).



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