

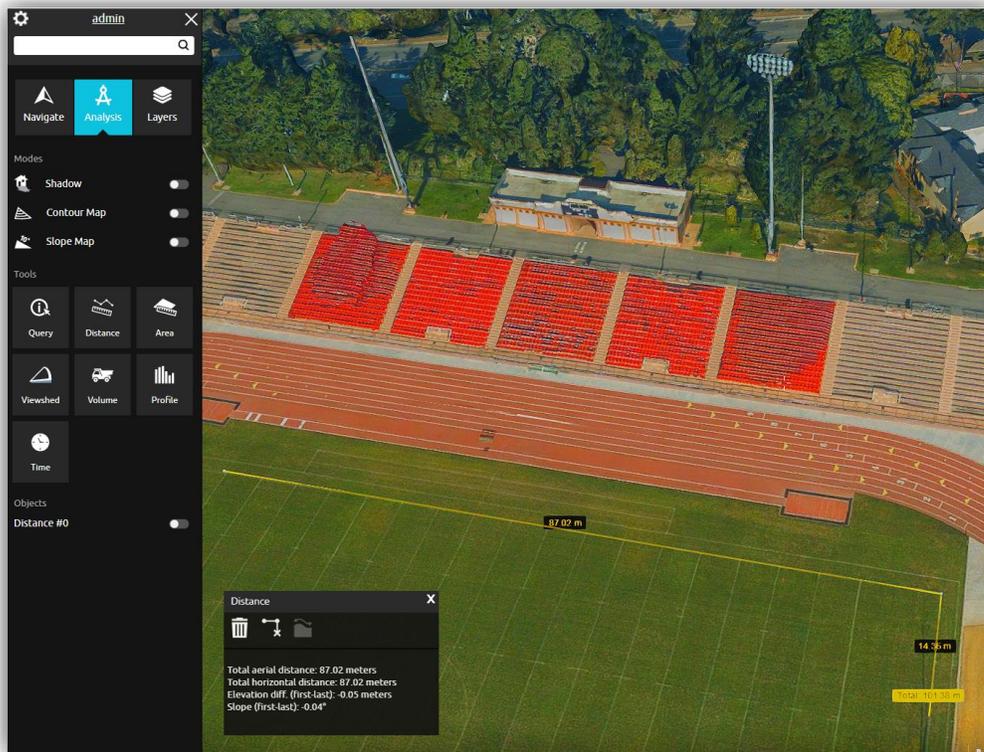
# RELEASE NOTES FOR TERRAEXPLORER FOR WEB 7.2.1

## About TerraExplorer for Web

[TerraExplorer for Web](#) (TE4W) is a lightweight 3D GIS viewer that enables you to view and analyze high-resolution, stunningly realistic SkylineGlobe 3D content in a web browser, without any plug-ins. This latest addition to Skyline’s TerraExplorer product line complements Skyline’s powerful 3D GIS desktop and mobile applications, offering a simple, no-download, no-installation solution for online viewing and analysis of 3D environments.

Building on standard Cesium support for imagery, elevation and KML layers, TerraExplorer for Web can also display most of your spatial databases including 3D city layers and feature layers. TerraExplorer for Web integrates smoothly with the entire Skyline product line for easy access to all your data – from photo-realistic, geographically accurate terrain databases created in TerrainBuilder to PhotoMesh’s high-resolution, textured, 3D mesh models.

Moreover, TerraExplorer for Web seamlessly accesses online data from Skyline’s SkylineGlobe server and other OGC-compliant servers, and quickly loads online TerraExplorer projects. Based on HTML5/WebGL standards, TerraExplorer for Web provides support for multiple platforms and browsers (Windows, Mac, Linux, and selected mobile devices, Chrome, Firefox, Edge, Internet Explorer and more).



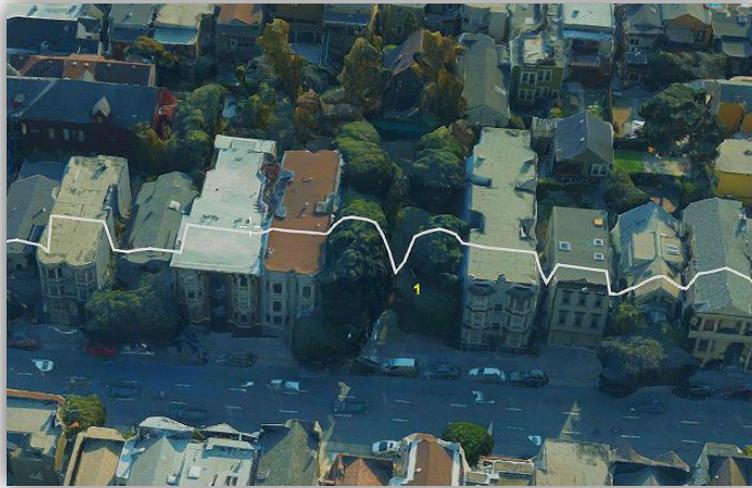
## New Features in Release 7.2.1

### Expanded Support for On-Terrain Drawing Mode

TE4W has augmented its On-Terrain objects' support to include polygons with fill, 2D entities and other object types.

### Support for On-Model Drawing Mode

TE4W 7.2.1 provides a new On-Model drawing mode that smoothly drapes polylines and polygons directly on the actual mesh models.

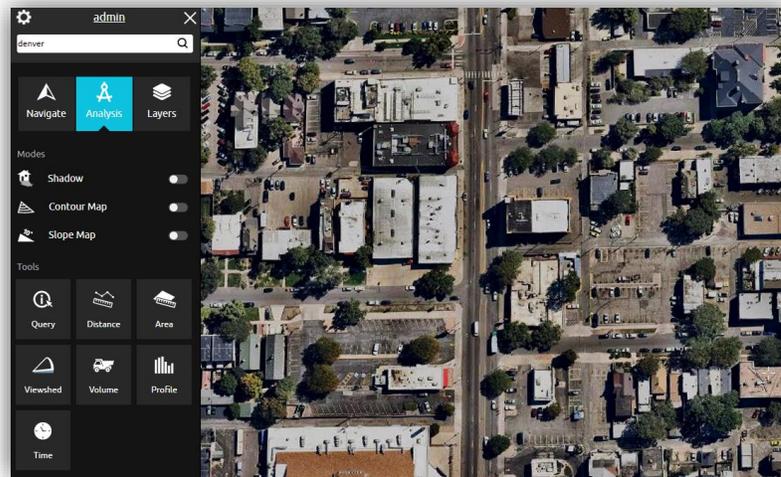


### Performance Improvements

- Faster, smoother loading of 3D mesh layers
- Increased frame rate to support lower hardware configuration settings

### MapBox Imagery Provider

Imagery layers from the MapBox web service can now be loaded by TerraExplorer for Web as imagery layers or to replace the base terrain. The MapBox imagery layer definition is read from the project file published by TerraExplorer Pro.



### Mobile-Friendly

TE4W 7.2.1 is easily and readily accessible across most mobile platforms with optimized and responsive media display, so you can view, edit, and analyze your data on the go.



### Support for Message Popup

Additional elements from a published TerraExplorer project are now supported in TE4W, including messages with a text string, HTML page, image, or attribute field values.

### Full Customization of TerraExplorer for Web

The new release provides a complete development kit with JavaScript library to enable full API integration of TE4W, enabling you to create stand-alone applications embed TE4W functionality into existing applications, and build custom tools and extensions.

## Integration of CAD/BIM Models into Existing 3DML

TE4W 7.2.1 enables you to integrate CAD/BIM models into an existing city-wide 3D mesh layer, by using the Modify Terrain object to flatten 3D mesh layers in a polygonal area, and then insert the models in their correct positions. Modify Terrain objects can be created in TerraExplorer Pro and then published to SGS or created via the TE4W API.

## Improved Support for BIM/CAD Models

This release provides enhanced support for 3D mesh layers generated from CAD/BIM models, including the ability to set model position via TE4W API.

## Bug Fixes and Stability

This release improves overall stability and performance.

## Release 7.2

### Support for 3D Mesh Layers' Ground Surface

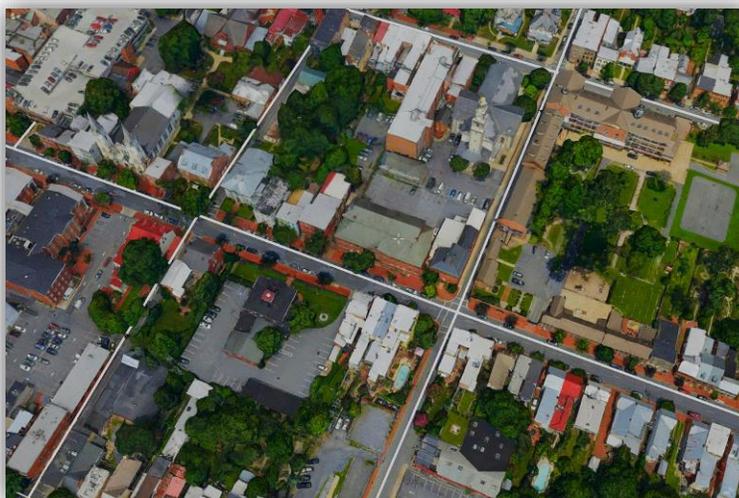
3D models created by Skyline's PhotoMesh include a ground surface that is significant when drawing ground level feature layers (e.g., roads and parcels) in a complex 3D mesh environment. This ground surface information is now embedded in 3D tiles loaded into TE4W, thus supporting the following:

- Adjustment of all Relative to Terrain layers to the 3D model ground surface
- Drawing of ground level feature layers on the 3D model ground surface



### Support for On-Terrain Objects

TE4W 7.2 has further expanded its support for objects created in TerraExplorer Desktop to include “on terrain” objects, rendering polylines and polygons on the terrain or 3DML ground surface for enhanced display and improved performance.



## Performance Improvements

- **Large feature layers** – New mechanism speeds up rendering of even massive point feature layers for a smoother flight experience.
- **Point clouds** – Point clouds now load and display in TE4W as fast as in TerraExplorer Desktop, due to modifications to CPT point size and level of detail requests.
- **Models** – Improvements to floor mechanism have vastly accelerated the loading of models.

## Volume Analysis

TE4W 7.2 adds to its arsenal of analysis tools a new Volume Analysis tool that analyzes the volume of the terrain or model removed or added by a horizontal plane. This tool can be used to calculate the volume of material in a pile for use in mining or extraction.



## Measurement Tool Improvements

TE4W's distance and area tools have been turbo-charged, featuring styling enhancements as well as expanded capabilities, including: measurement of area on any 3D plane, and measurement of surface area or ground distance taking into account terrain contours.

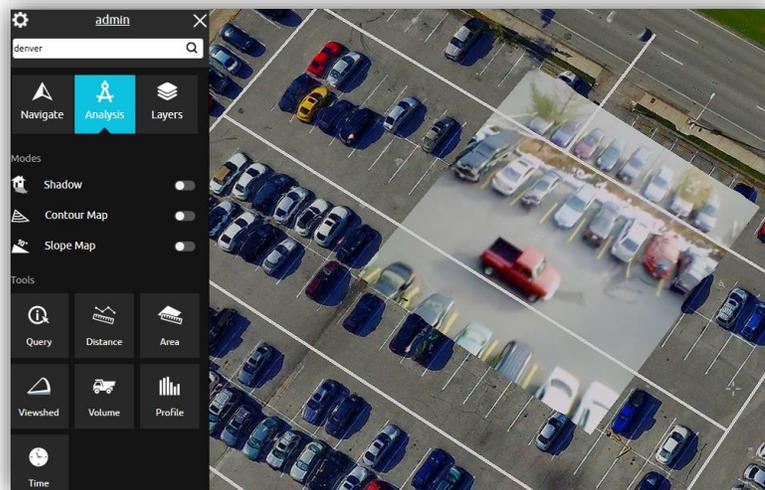


## Save Measurement and Analysis Objects

All distance, volume and area measurements and viewshed analyses can be saved in the project for future access, and their display switched on/off from the Analysis tab.

## Video on Terrain Object

TE4W expands its advanced objects' support to include display of video on terrain objects created in TerraExplorer Desktop or using the TE4W API. The Video on Terrain commands play a video file either on a selected area of the terrain (Video on Terrain), or on a floating billboard (Video Billboard).



## Modify Terrain Object

TE4W expands its advanced objects' support to include display of modify terrain objects created in TerraExplorer Desktop or using the TE4W API. Using the Modify Terrain tool, you can modify the elevation values in an area of the terrain by drawing a polygon in the 3D Window and then setting the

Modify Terrain elevation value. The surface of the terrain is raised or lowered according to the elevation values of the polygon's points.

### Hole on Terrain Object

TE4W expands its advanced objects' support to include display of hole on terrain objects created in TerraExplorer Desktop or using the TE4W API. Cutting a hole on the terrain removes the terrain texture while maintaining the original contours of the terrain. The objects or feature layers created on the terrain in the area of the hole are drawn on the original contours of the terrain.

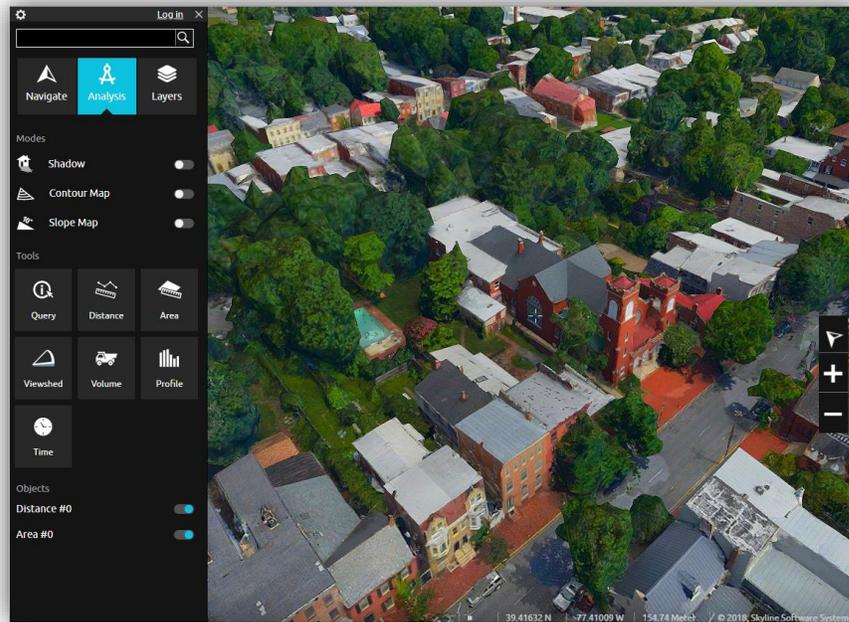
### Enhanced Rendering Effects

A range of visual display settings can now be changed via the API, including saturation, contrast, brightness, sharpness, and lookup-table (LUT) values.



## New and Improved GUI

The new release features a streamlined, reorganized application sidebar, making it easier to find the command or tool you require.



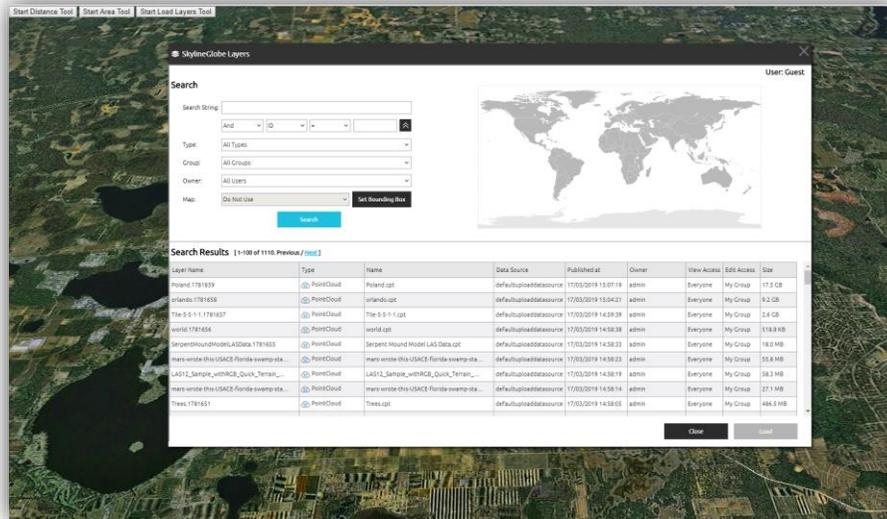
## Mobile-Friendly

TE4W 7.2 is easily and readily accessible across most platforms with optimized and responsive media display, so you can view, edit, and analyze your data on the go.



## New API

TE4W 7.2 offers all-new API interfaces for navigating in the 3D World, drawing 2D and advanced (modify terrain, hole on terrain, and video) objects, performing a wide range of terrain measurement and analysis, modifying settings such as saturation and brightness, retrieving objects and layers, and activating GUI commands.



## Startup Script

New TE4W customized configuration option enables inclusion of a custom JavaScript code to run when TE4W is opened. The JavaScript code can include access to Cesium API or any of the SGWorld API objects.

## SERVER AND BROWSER REQUIREMENTS

<b>Operating System</b>	Windows / Linux / MacOS / Android / iOS
<b>System Memory</b>	2 GB of RAM (4 GB or more recommended)
<b>Processor</b>	4 cores (8 cores recommended)
<b>Browser</b>	<ul style="list-style-type: none"><li>▪ Windows: Chrome, Firefox</li><li>▪ MacOS: Chrome, Safari</li><li>▪ Linux: Chrome</li><li>▪ Android: Chrome</li><li>▪ iOS: Safari</li></ul>

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