RealityCapture

RC 1.2 Tarasque comes with UI improvements and
industry changing tools intended for GIS and construction

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Capturing Reality is an Epic Games Studio based in Slovakia developing photogrammetry software **RealityCapture** (also known as RC) which creates textured 3D meshes, orthographic projections, geo-referenced maps from (aerial, terrestrial) images and/or laser scans completely automatically. Our new software release aims for field working professionals requiring the highest precision and speed.

RC 1.2. Tarasque version´s highlights are:

- ### Ortho Projection using Image mosaicking

Option to create an ortho projection rendered from images rather than textured/colorized mesh.

- ## Orthomosaic Editing

Allows to select a region and specify which cameras should be used for the orthomosaic generation - to fix possible visual issues, remove cameras that captured a moving car/person you don't want in the orthomosaic.


- ## Volume Measurements

Select a region, specify the base plane type and measure cut and fill volumes - useful for topographical surveys, identifying how much groundwork needed to level an area, as well as stockpile measurements.


Figure 1: Height profile along the boundary of Line 2 (m).

- ## Profile Measurements

Definition and elevation profile display of a drawn polyline/shape, identity of high and low points within the selected area.
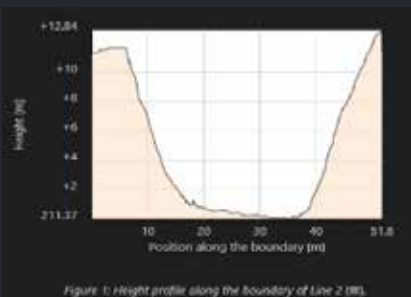
- ## **Contours**

Ability to display contours(isolines) to visualize the height profile of the displayed orthographic projection - users are able to set the min and max altitude and contour intervals. Giving a visual representation of how the land is falling and where the high and low points are - useful for topographical surveys and engineering workflows.
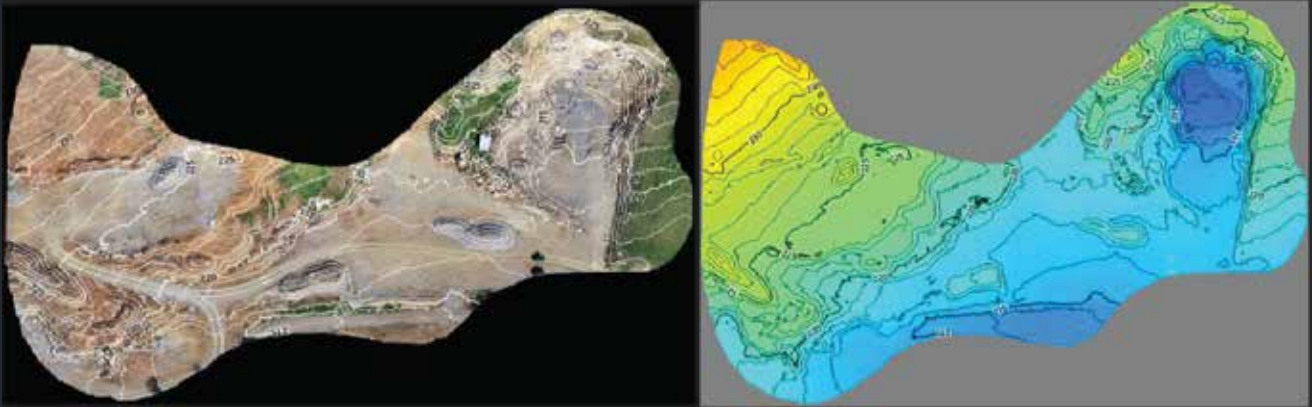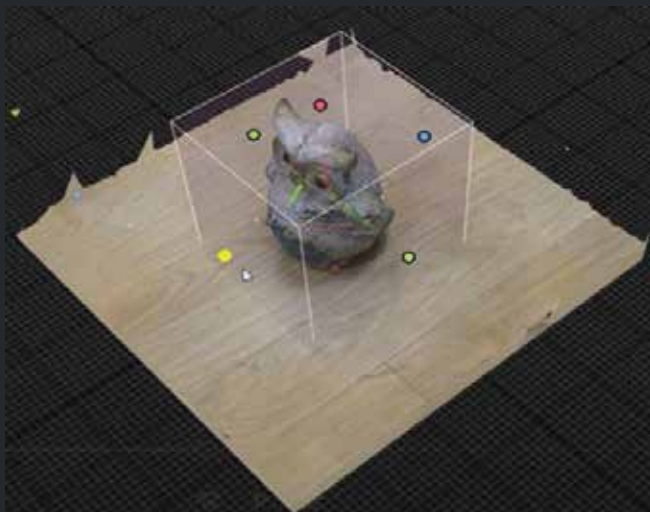

- ## **Cross Sections**

Cross sections are mainly used within GIS workflows - they basically provide you with multiple profiles of an area along a specified plane - these can then be exported as shapefile/dxf format.
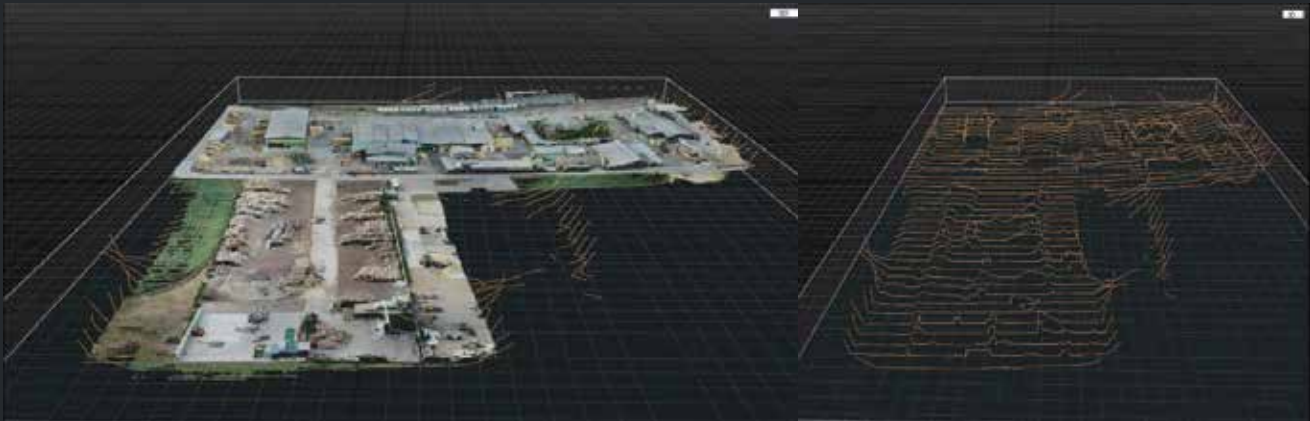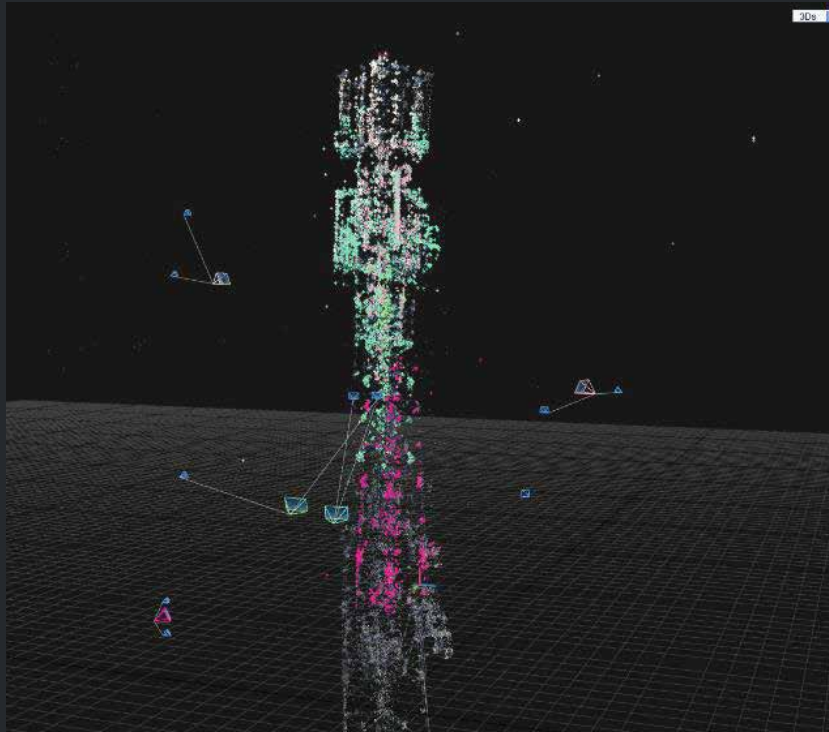

Other Improvements Include:

- ## **Cut by Box**

Allows to remove triangles inside/outside box or slice.

- ## **Misalignment Detection Tool**

A new option within the Inspect tool that can visually highlight camera misalignments.

- ## **Optimized LOD and add LOD Texture Format**

- ## **New border decimation setting in Simplify Tool**

Option to keep border intact on simplification (keep original number of vertices along the borders, or make new simplified border)

Original | Simplified Border | Intact Border

- ## **Faster depth maps calculation**

- ## **Ribbon 2.0**

Other than that RC 1.2. version comes with major UI Improvements, as well.
One Export, UX Improvements, better tool grouping

- ## **Additional Selection Tools**

Polygon, Polyline, Adjustable Brush

About Capturing Reality

Capturing Reality is a software development house based in Slovakia, founded in 2013 by 3 developers, Tomas Bujnak, Martin Bujnak and Michal Jancosek. They have decided to revolutionize the field of photogrammetry and developed RealityCapture, the state-of-the-art photogrammetry software. RealityCapture is known for its speed and accuracy and used by professional across wide range of industries. It has been the first software to introduced seamless combination of laser scans and photos and it is currently the fastest photogrammetry software on the market. RealityCapture enables you to turn ordinary set of photos and/or laser scans into realistic 3D models quickly and with low hardware requirements.

Capturing Reality has been acquired by American Epic Games Inc. gaming company in March 2021. Capturing Reality's powerful photogrammetry software is currently being integrated into the Unreal Engine ecosystem, making it even easier for developers to upload images and create photorealistic 3D models in instants. At the same time, Capturing Reality continues support and development for partners across industries like gaming, visual effects, film, surveying, architecture, engineering, construction, and cultural heritage.

About Epic Games

Founded in 1991, Epic Games is an American company founded by CEO Tim Sweeney. The company is headquartered in Cary, North Carolina and has more than 40 offices worldwide. Today Epic is a leading interactive entertainment company and provider of 3D engine technology. Epic operates Fortnite, one of the world's largest games with over 350 million accounts and 2.5 billion friend connections. Epic also develops Unreal Engine, which powers the world's leading games and is also adopted across industries such as film and television, architecture, automotive, manufacturing, and simulation. Through Unreal Engine, Epic Games Store, and Epic Online Services, Epic provides an end-to-end digital ecosystem for developers and creators to build, distribute, and operate games and other content