3D Mapping & Models

3D Mesh Model	3D Point Cloud Model	Orthomosaics

Photogrammetry

- Photogrammetry uses aerial photos to create highly accurate 3D terrain maps.
- Areas & Volume (Geodetic: Large Scale, Land (Mountains, Rivers) - Cadastral: Boundaries, Land Ownership)
- Lidar gives you a point cloud, but because photogrammetry stitches photos together to create your model, you get the visual details of every feature on your site, taking abstraction out of the conversation. Think of it like this: lidar produces an elevation set, while photogrammetry gets you elevation plus visuals.

Lidar

- Laser Scanning (Light Detection & Ranging) - Lidar is a method for determining ranges by targeting an object or a surface with a laser and measuring the time for the reflected light to return to the receiver. It can also be used to make digital 3-D representations of areas on the earth's surface and ocean bottom by varying the wavelength of light. It has terrestrial, airborne, and mobile applications.[1][2]
- Lidar is commonly used to make high-resolution maps, with applications in surveying, geodesy, geomatics, archaeology, geography, geology, geomorphology, seismology, forestry, atmospheric physics,[6] laser guidance, airborne laser swath mapping (ALSM), and laser altimetry. It is also used in control and navigation for some autonomous cars[7] and for the helicopter Ingenuity on its record-setting flights over the terrain of Mars.[8]

Aerial Mapping

Aerial Mapping, also known as Aerial Photogrammetric Survey (APS) consists of using drones to collect telemetry data, images and data from large, risky or hardly accessible industrial facilities. Generate aerial insights and upload imagery to create accurate, high-resolution maps and 3D models for detailed analysis. Easily export data in the format you need, or use open APIs to sync your data with everyday tools. (DXF, LAS, OBJ, SHP, TIF, JPG. All this data is collected with high level of precision by drone instruments and then are treated by powerful softwares which transform this data into high resolution 3D photogrammetric models. 3D photogrammetric models and orthomosaics not only unveil a much richer universe of constructive details compared to traditional 3D CAD/CAE models but also render their update much easier when necessary.

Interior Mapping

Captures 2D photography and 3D data from job sites, and automatically stitches them into a complete, immersive 3D model of a real-world job site. Consumers will have the ability to watch, enjoy, and share by simply sending an embedded link. Annotate, share, measure: Export assets (point cloud, reflected ceiling and floor plan images, 3D mesh file, 2D photos, and more) and continue working in other software that you already use.

- Generate Industry Standard Floor Plans
- Take a free-moving interactive tour of the entire entity anytime/anywhere you have internet.
- The measurements are not only accurate, but can be made visually appealing for presentations.

Product Mapping (WIP)