True View 515

The True View® 515 is GeoCue's latest addition to our LIDAR/camera fusion platform designed from the ground up to generate high accuracy 3D colorized LIDAR point clouds. Featuring dual GeoCue Mapping Cameras, Hesai PandarXT-32 laser scanner and Applanix Position and Orientation System (POS), the result is a true 3D Imaging Sensor (3DIS). With its wide 120° fused field of view, the True View 515 provides high efficiency 3D color mapping and will redefine LIDAR wire extraction and dense vegetation penetration applications for all-purpose sensors.

Sensor Fusion starts here...

Dual Cameras

Two GeoCue Mapping Cameras provide a 120° field of view, coincident with the laser scanner track. The 25° oblique mounting ensures the sides of objects are imaged, allowing a true 3D colorization of all LIDAR points.

LIDAR Scanner

The Hesai PandarXT-32 laser scanner provides range of up to 100 m with two returns per outgoing pulse. High sensitivity enables superb detection of wires and ground beneath vegetation.

Google Processor

A Google® Coral TensorFlow Processing Unit provides exceptional power as the True View Central Control Unit (CCU). The CCU coordinates all on-board functions of the system.

Applanix Positioning

A sensor can be no more accurate than the position and orientation system. GeoCue incorporates the industry's most accurate and reliable POS – the Applanix APX series. APX post-processing is accessed via the included True View software, providing "pay-as-you-go" access to SmartBase and Trimble PP-RTX positioning services.

True Track® Flightlines

Post-processing software uses positioning system information to perform roll compensation at the individual scan line level. This allows reduced overlap between flight lines, increasing platform flight efficiency.

True Time Synchronization

Fusing sensor data requires exceptional timing synchronization among the positioning system and all sensors. True View's System Synchronization Unit (a GeoCue designed Master Clock), ensures sensor coordination at the microsecond level.

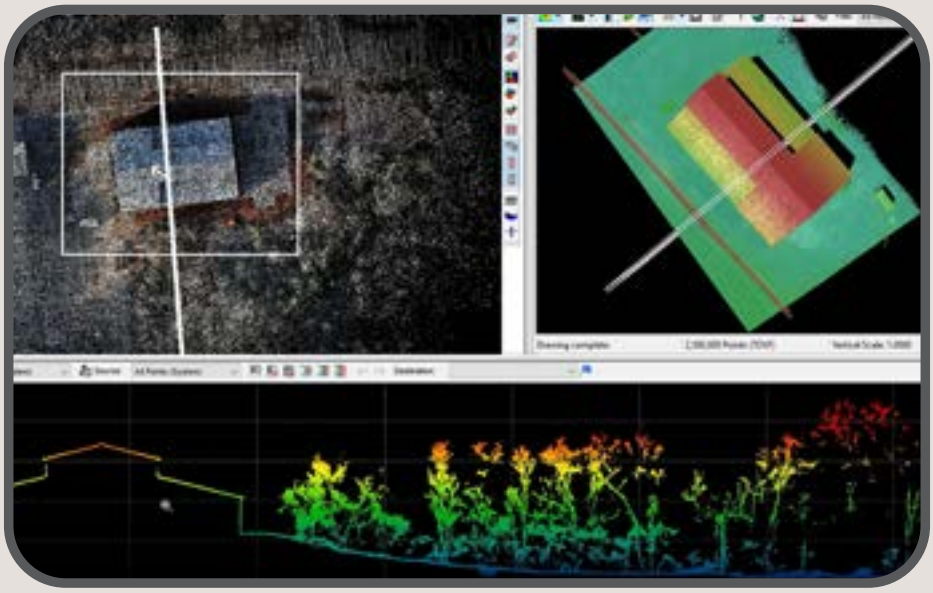
True View 515 on the DJI M300

The 3DIS Advantage

GeoCue' s True View 3DIS® (3D Imaging Sensor) are designed to create point cloud data that have been colorized with Red-Green-Blue (RGB) camera data via a rigorous point by point tracing algorithm. One of the biggest advantages of a True View 3DIS® is the speed with which these data can be produced; a 15-minute data collect can be processed to a colorized point cloud in about 10 minutes!

Complete Workflow Software Included

True View EVO gives mappers and surveyors the ability to deliver high quality analytic data with exacting accuracies. These deliverables are generated using workflows and tools within GeoCue's post processing software, True View EVO. Examples of derived products include bare earth models, profiles, cross sections, topographic contours, volumetric analysis and more. True View EVO lets users ingest data from a True View sensor and process to end products without the need to employ other software applications. This is a huge reduction in workflow complexity and a big-time saver. Every True View 3DIS® includes all the software needed to flow from raw collected data to product deliverables; True View EVO, Applanix POSPac and True View Reckon post-deployment data management portal.



Assessing, correcting and reporting geometric accuracy is critical to metric mapping workflows. True View EVO contains tools to assess/report network accuracy according to American Society for Photogrammetry and Remote Sensing (ASPRS) standards, measure hard surface precision and geometrically debias LIDAR data.

Evergreen Subscription Service

(Currently Available in the USA, Canada and Australia)

GeoCue has introduced a unique business model that allows customers to acquire their True View 515 under an "Evergreen" Hardware as a Service subscription model. This model includes all processing software, maintenance and support in the per-minute charge to ensure your project is completed with full success.

Under this model, you are effectively subscribing to the full True View solution. GeoCue understands that some projects take less/more time than others. We offer subscription periods as short as 1 month. During your subscription period you will receive both software and hardware updates as they occur. This keeps your technology in an "evergreen" state, and if you end up realizing that a traditional purchase is more practical for the future, your subscription can be terminated to allow the system purchase at a time that fits your schedule.

Not only does this model allow you to explore drone LIDAR mapping at very low risk, it is also an excellent model for seasonal use and surge capacity.

True View 515 Product Specifications

Specification	Value
LIDAR Scanner	Hesai PandarXT-32
LIDAR Range - Usable	80 m @ 20% reflectivity
Field of View (FOV) - Combined	120°
LIDAR Beams/Returns	32/2
Pulse Repetition Rate	640 kHz
Accuracy	Better than 5 cm, RMSE
Precision	Better than 5 cm at 1 σ
Dual Cameras (Port, Starboard)	±25° cross-track oblique
Camera Sensor	1" mechanical shutter, hardware mid-exposure pulse, 20 MP, RGB
Camera Lens	28 mm ƒ, 2.8 Max F Stop, fixed focus
Camera Cross-track FOV	63.8°
Camera Trigger	Interval or Distance
Mass	2.15 kg, with battery
Operating Time (per battery)	> 1 hr
Dimensions	30.5 cm x 17.5 cm x 16.7 cm

GeoCue Group

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