

emesent Aura



EMESENT'S INTEGRATED PROCESSING AND VISUALIZATION SOFTWARE SIMPLIFIES 3D LASER SCANNING WORKFLOWS FROM CAPTURE TO INSIGHT

Emesent Aura allows the processing and visualization of scans in one intuitive platform, streamlining the way Hovermap users process, view, and analyze point clouds for faster insights and improved decision-making.

SLAM-based mapping is known for its speed, ease of use, and ability to capture shadowless, dense point clouds. As use cases grow and point cloud sizes increase, efficiently processing, viewing, and analyzing the data becomes challenging.

Emesent Aura delivers a solution that makes your workflow seamless and hassle free no matter how large or numerous your datasets, dense your point clouds, or complex your 3D structures. Optimized for Hovermap users, Aura combines Emesent's SLAM processing software with powerful point cloud visualization and analysis capabilities.

Process, view, clean, edit, and take measurements from Hovermap point clouds in a single streamlined application. Automate previously manual and error prone tasks to improve the quality of analysis.

Aura excels at displaying the dense, detailed point clouds produced by Hovermap, even for extremely large datasets with billions of points. Emesent's proprietary Multi-Frame Rendering algorithm ensures crucial point cloud details are rapidly displayed in high definition for improved decision-making.



Optimized viewing of Hovermap's high density datasets



Save time with set and forget batch point cloud processing



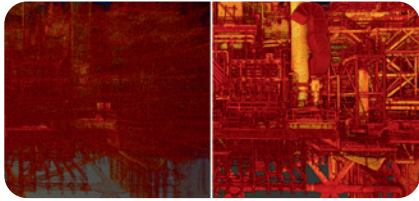
Point cloud cleaning tools improve output quality at the push of a button



Processing and viewing in a single system for faster time to insight

A single, streamlined application workflow

Don't waste time switching between applications to process and view your data. Aura consolidates it all in one platform, with the ability to export to widely-used industry file formats and CAD packages.



Visualize every detail - even for complex assets

Multi-Frame Rendering efficiently visualizes your point cloud in the highest detail, no matter how dense the points or complex the asset, giving you deeper insights.

Process, Visualize and Analyze Simultaneously

Aura gives you the ability to toggle between open point clouds, so you can work on multiple scans at the same time as you are processing, improving efficiencies and saving you time.

Save time with batch processing

Job queuing allows for batch processing of files, allowing you to spend your time more productively.

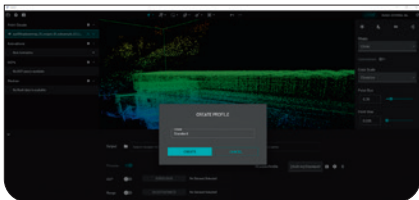


Reliable, high quality processing

Processing powered by the world's leading SLAM algorithm converts your data into highly detailed, accurate point clouds.

Improved output quality

Clean your point cloud at the touch of a button with SOR (Statistical Outlier Removal) and DBD (Decimate by Distance) filters. Georeference your point cloud with confidence, thanks to Automated Ground Control alignment (optional) and accuracy reports.

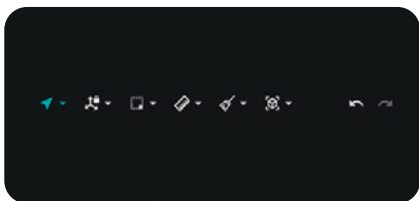
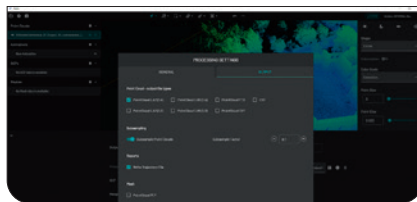


Save time with personalized profiles

Create customized profiles, or reuse existing profiles to process scans with minimal configuration.

Intuitive and responsive interface

Aura's simple navigation and intuitive workflows make it easy for users of all levels to process, visualize, analyze and export their data.



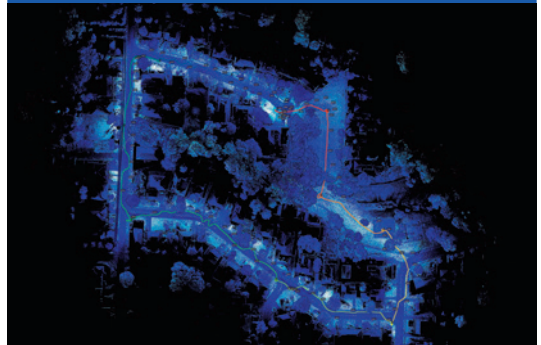
Effortlessly manipulate point clouds for improved analysis

A range of 3D tools allows you to easily manipulate point clouds, reducing the risk of error and improving analysis.

Easily share key details

Export high resolution screenshots from within Aura at the click of a button to share outputs in a stakeholder friendly format to improve their understanding and gain buy-in.

OPTIONAL FEATURES



AUTOMATED GROUND CONTROL

Aura's Automated Ground Control is an innovative feature that further increases the accuracy of Hovermap point clouds and enhances the capabilities of its SLAM-based mapping. Automated Ground Control enables new use cases, including long, large, and feature-poor assets such as roads, stadiums, and tunnels - previously a challenge for SLAM-based mapping.

Using machine learning, GCP automatically detects reflective ground control targets and uses these to both georeference the point cloud and improve accuracy. After running Automated Ground Control, you can validate your target alignment with a GCP Accuracy Report.



COLORIZATION

Aura provides Emesent's best-in-class colorization for deeper environmental insights. Augmenting point clouds with true color provides additional context, more clarity, and realism to achieve greater insights across a variety of applications, revealing previously hidden details in your critical infrastructure.