Aura

Unlock the power of your
Hovermap point clouds

- Fast, high quality SLAM-based processing delivers reliable, accurate results
- Seamlessly merge multiple point clouds with non-rigid correction
- Unlimited processing with no additional costs
- On premise solution that keeps you in full control of your data
- Multi-user access, share licenses across locations

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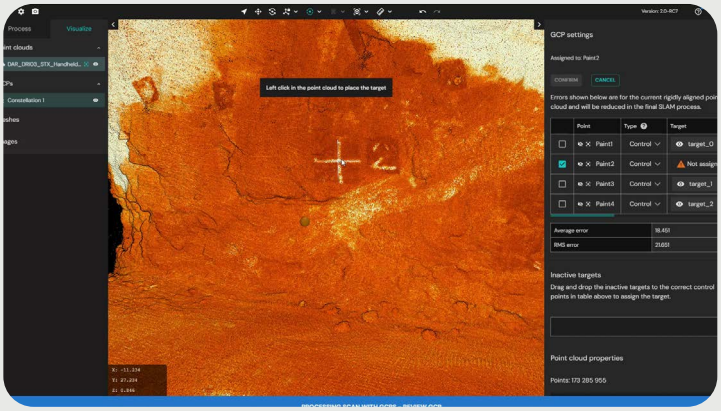
The next generation of Aura

Unlock the full potential of your point clouds with Emesent Aura — the all-in-one platform designed to optimize the processing and visualization of your Hovermap scans. Built with the same versatility and flexibility you love in Hovermap, Aura streamlines your entire workflow, whether your capture is via drone, handheld, backpack or vehicle or a combination of these. Powerful automation, intelligent filtering, and advanced point cloud enhancement tools deliver precise, high-quality results with speed and ease — transforming how you process, view, and analyze point clouds.



Check point accuracy summary

Average final error: 0.0067m

RMS final error: 0.0080m

GCP target error (m)

Check point	Control position (m)			Pre-SLAM rigid alignment error (m)				Final error (m)				Target detection type
	X	Y	Z	X	Y	Z	3D	X	Y	Z	3D	
Reflective_big_2	2029.3130	5461.5670	22.1410	0.0085	0.0157	0.0066	0.0191	-0.0010	-0.0010	-0.0020	0.0030	User
Paintmarx1	1996.4650	5448.3180	21.9480	0.0069	0.0057	0.0051	0.0103	0.0010	0.0010	0.0000	0.0020	User
Paintmarx2	2062.8900	5448.3340	21.9580	0.0056	0.0272	0.0002	0.0277	-0.0020	-0.0020	0.0000	0.0030	User
Reflective_small_1	2010.6930	5506.4230	26.4960	0.0282	0.0146	0.0114	0.0337	0.0010	-0.0040	0.0050	0.0060	User
Reflective_small_4	1997.6060	5469.0810	26.5800	0.0071	0.0055	0.0065	0.0111	-0.0060	-0.0040	-0.0020	0.0080	User

Georeferencing without the headaches

Aura delivers smart, automated features that enhance the accuracy of your Hovermap scans and optimize SLAM results - seamlessly and efficiently. With automated georeferencing and drift correction, there's no need to manually input GPS coordinates, eliminating time-consuming and error-prone processes.

Aligning multiple scans is also easier than ever, with minimal manual intervention needed to create a complete, accurate view. Non-rigid correction enables the merging of multiple point clouds into a seamless output, improving efficiency, accuracy, and usability while ensuring consistent alignment for high-quality deliverables.

And for above-ground scans, Aura leverages RTK to provide high-precision georeferencing and drift correction at the click of a button. RTK reduces the need for physical ground control points, reducing labor and speeding up delivery while minimizing human error.

All-in access. Total control

With Aura, there are no hidden processing fees — your license includes unlimited processing with no square meter (sqm) usage restrictions.

You also enjoy seamless multi-user access with concurrent user licenses that can easily be shared with team members in different locations and on multiple devices.

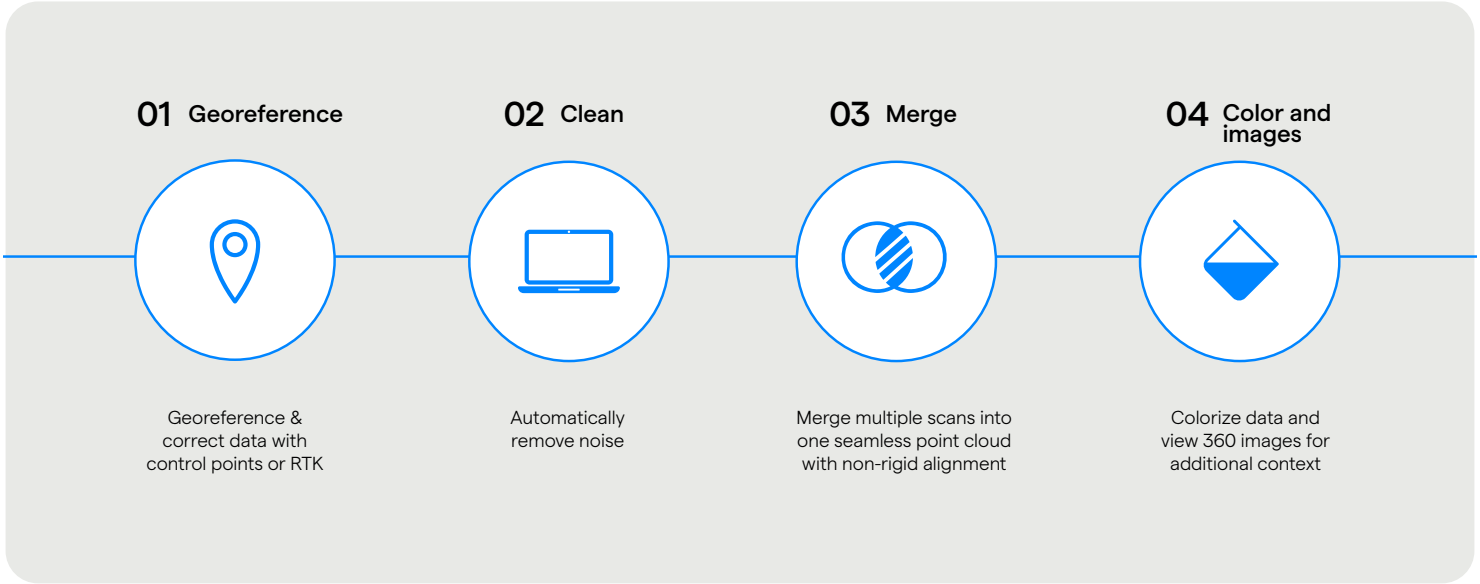
And because data control matters, Aura is an on-premise solution, keeping your point cloud data secure and fully within your control.

Experience Unmatched Flexibility—with Aura

The same versatility that makes Hovermap stand out is built into Aura. No matter how you capture your scans — handheld, backpack, drone, vehicle, or a combination — Aura empowers you to process and visualize your data with the same seamless flexibility. When it comes to georeferencing and correction using GCPs, Aura adapts to your workflow: use your own targets or reuse existing ones, accelerating your workflow - or augment them with Emesent's own to improve accuracy.

Aura workflow

How it works



Integrated processing & 3D visualization software

Flexibility to suit you

Aura offers a flexible workflow that adapts to your needs, allowing you to work the way that suits you best

Unlimited processing
Unlimited square meters (sqm) with no usage restrictions or hidden fees.

Concurrent Licensing
Share access across multiple team members in different locations and across multiple devices.

Multi-capture processing
No matter how you have captured your scan - handheld, backpack, vehicle or drone - Aura handles it all with ease.

Choose your own targets
The flexibility to choose your own targets in the point cloud.

Range of formats
Easily export point clouds to LAZ, LAS, PLY, and E57 formats.

Export into 3rd party tools
Hovermap point clouds are optimized for useability with a wide range of 3rd party software for further manipulation, analysis and modeling.

Ease of use

Aura makes it easy for users of all levels to process, visualize, analyze and export their data

Simple workflow
Capture, process, and visualize your data in one easy-to-use platform.

Queuing
Save time by queuing multiple jobs to process automatically in the background.

3D analysis tools
Easily manipulate and analyze point clouds with a range of intuitive 3D tools.

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

Enhanced Visualization

Bring your point clouds to life, in exceptional detail with advanced visualization features

360° colorization*
Automatic detection of ground control targets to georeference the point cloud and improve accuracy.

Automated point cloud cleaning
Automated georeferencing and SLAM correction, reducing or eliminating the need for GCPs.

360° panoramic images*
Validate the accuracy of your scan against check shots.

Multi frame rendering
Combine multiple point clouds into one seamless output with consistent alignment of scan data.

Color scale filtering
Choose your coordinate reference system and geoid and Aura does the transformation for you, without manual work or 3rd party software.

Change detection and convergence monitoring*
Easily track changes in enclosed or underground environments with quantitative, accurate data.

Optimized Accuracy

Smart features that bring a higher level of accuracy to your Hovermap scans and enhance SLAM results

Automated GCP georeferencing*
Automatic detection of ground control targets to georeference the point cloud and improve accuracy.

Real time kinematics (RTK)*
Automated georeferencing and SLAM correction, reducing or eliminating the need for GCPs.

Check points
Validate the accuracy of your scan against check shots.

Non-rigid merge
Combine multiple point clouds into one seamless output with consistent alignment of scan data.

*Requires additional hardware to enable features

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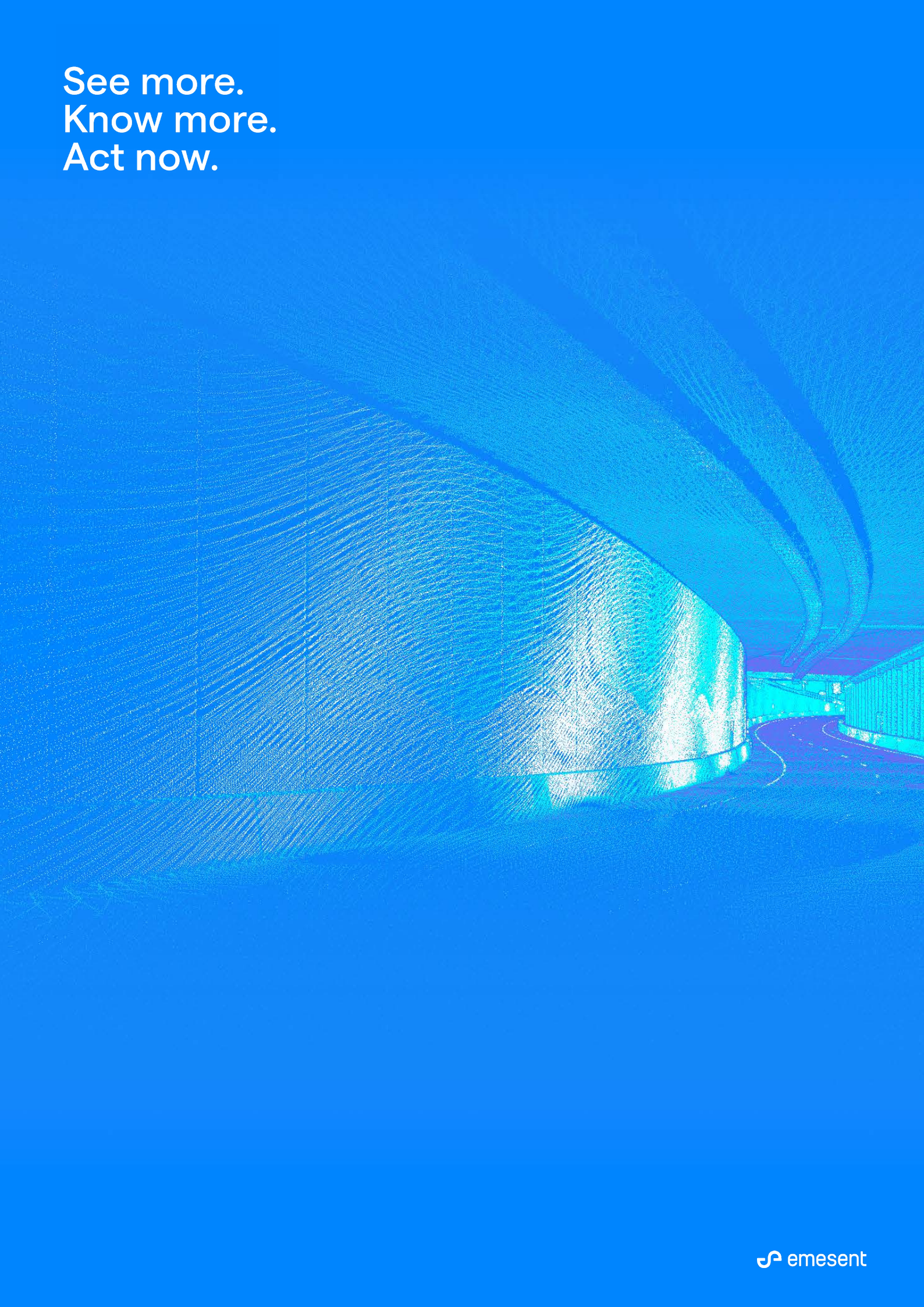
Know more.
Act now.



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