

High Performance
3D Point Cloud
Processing Application



d.ASH Xplorer



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d.ASH Xplorer is 3D reconstruction software that using state-of-the-art algorithms to handle large scale environment.

d.ASH Xplorer can be used in a variety of applications, from architecture and engineering. It is a powerful tool that allows users to manipulate and analyze large datasets of 3D point clouds. Point clouds are collections of 3D points that represent the surface of an object or a scene, captured using various 3D scanning techniques.

Productivity

- Simplify data processing, map editing, and seamless integration with cloud services for enhanced productivity.
- Eliminate guesswork in Building Information Model(BIM) creation with precise and accurate reality capture technology.
- Achieve optimal scanning results with the flexibility to operate the system either manually or on robotic platforms.

- Efficiently organize and oversee numerous scanning projects for seamless project management.
- Utilize advanced sensor fusion and SLAM Compute framework to automatically align and stitch together multiple scans, enabling users to create comprehensive and evolving maps.

Speed

- Experience fast and accurate 3D map reconstruction with our high-performance custom SLAM algorithm.
- Achieve 3D map reconstruction that is 3-5 times faster than the actual time spent on data collection, saving valuable time and resources.

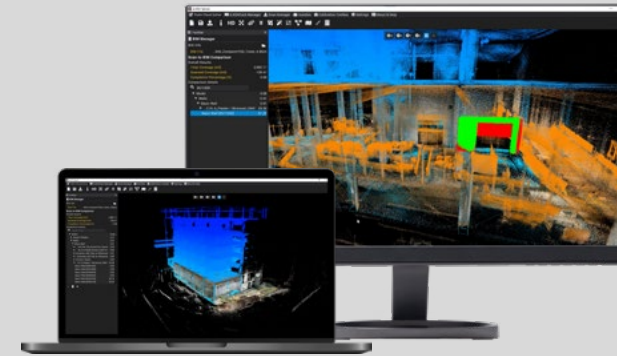
- Generate a detailed 3D map effortlessly by simply downloading the collected data from the robot.
- Streamline the Robot Deployment cycle in various environments, significantly reducing the time required for setup and operation.

Scale and Compatibility

- Seamlessly merge and align scan data with our Auto Merge + Auto Align feature, resulting in a high-density 3D point cloud digital twin.
- Customize point cloud resolution to suit different asset workflows, ensuring optimal data quality and efficiency.
- Perform advanced volumetric analysis, including dynamic people-as-object segmentation, leveraging the power of Machine Learning.

- Generate accurate 2D maps from the 3D point clouds using the built-in grid map generator, enhancing visualization and analysis capabilities.
- Export point cloud data to industry-standard E57, LAS, XYZ and DXF formats, and convert it into a mesh compatible with leading visualization software such as Revit, Unreal Engine, Unity, and any WebGL viewer that supports enterprise-grade applications.

Key Features

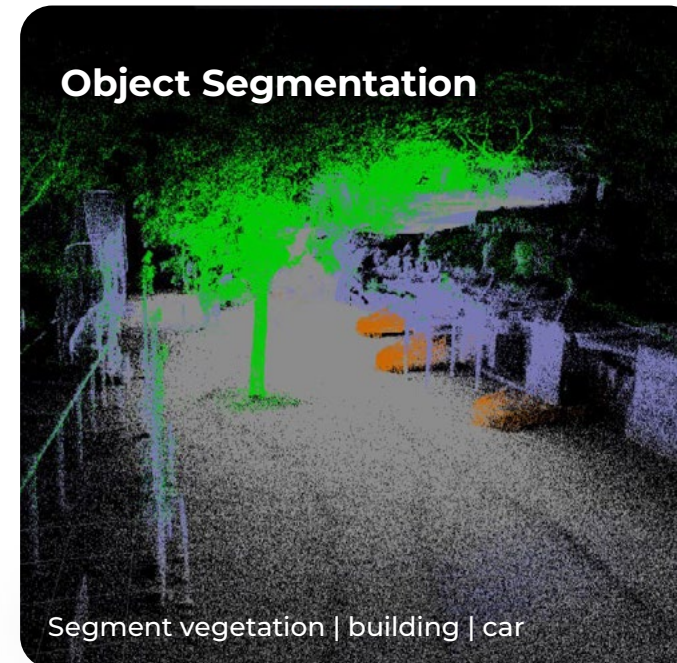


>1 billion point cloud processed in real-time



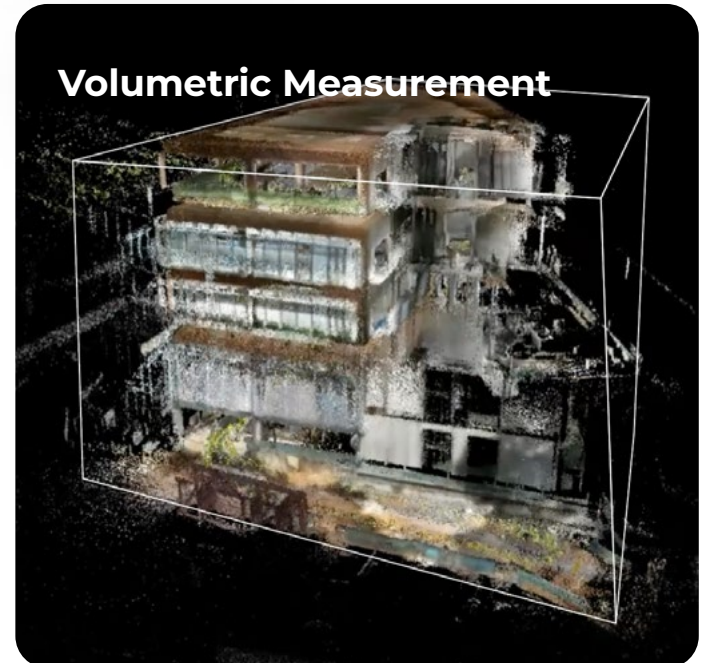
Haw Par Villa Park, Singapore
(15 football fields)

Object Segmentation

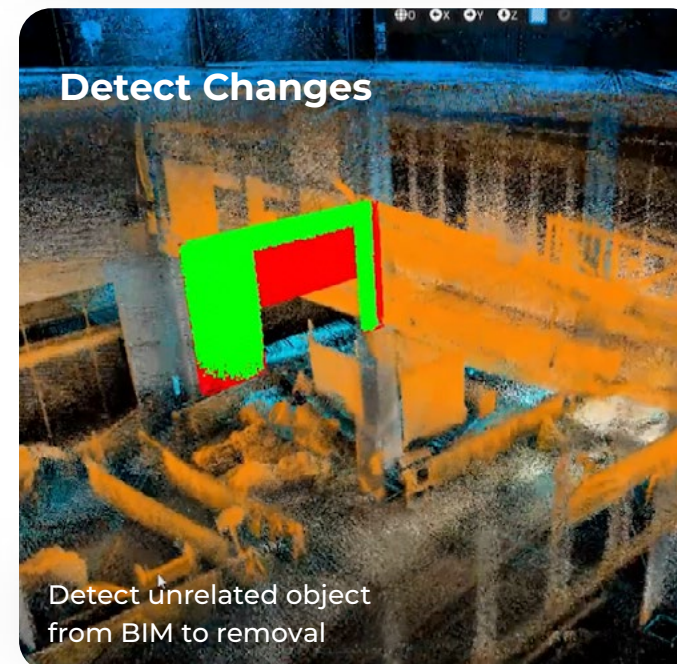


Segment vegetation | building | car

Volumetric Measurement

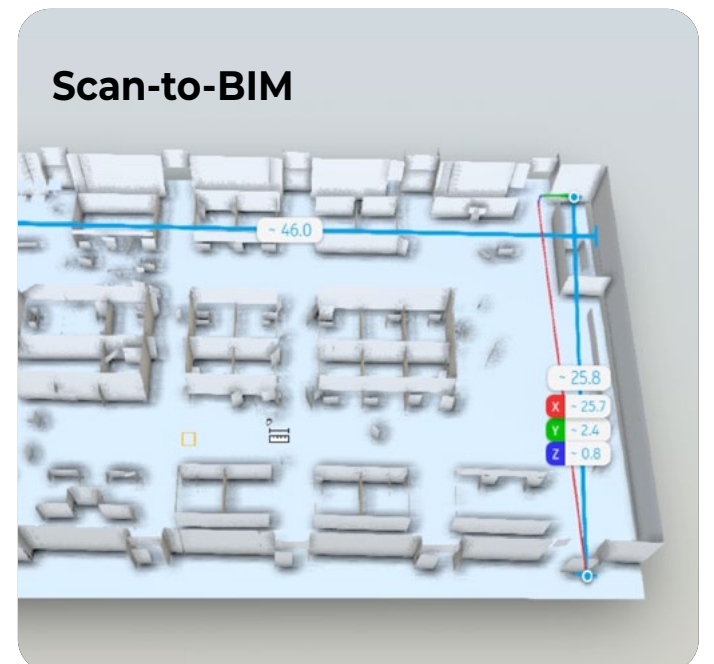


Detect Changes



Detect unrelated object from BIM to removal

Scan-to-BIM



System requirements

OS	Windows 10 64 bit
CPU	Intel i7 12th Gen / AMD R7 5000 series
GPU	Nvidia RTX 3060
Memory	32 GB
Internet	Required

We recommend using a discrete Nvidia GPU greater than or equivalent to an RTX 3060. Some features such as “HD View” are disabled on other GPUs.



Architecture & Construction

3D point cloud processing software can be used in architecture and construction to create accurate 3D models of buildings and structures. Point clouds can be used to measure distances, create floor plans, and detect potential issues in the construction process.



Robotics & Automation

3D point cloud processing software can be used in robotics and autonomous vehicles to create 3D maps of environments. These maps can be used for navigation and obstacle detection.



Digital Twins

3D point cloud processing software can be used to create 3D models of historical artifacts, buildings, and monuments. These models can be used for preservation, restoration, and educational purposes. Point clouds can be used to capture real-world locations and turn them into immersive virtual environments.



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