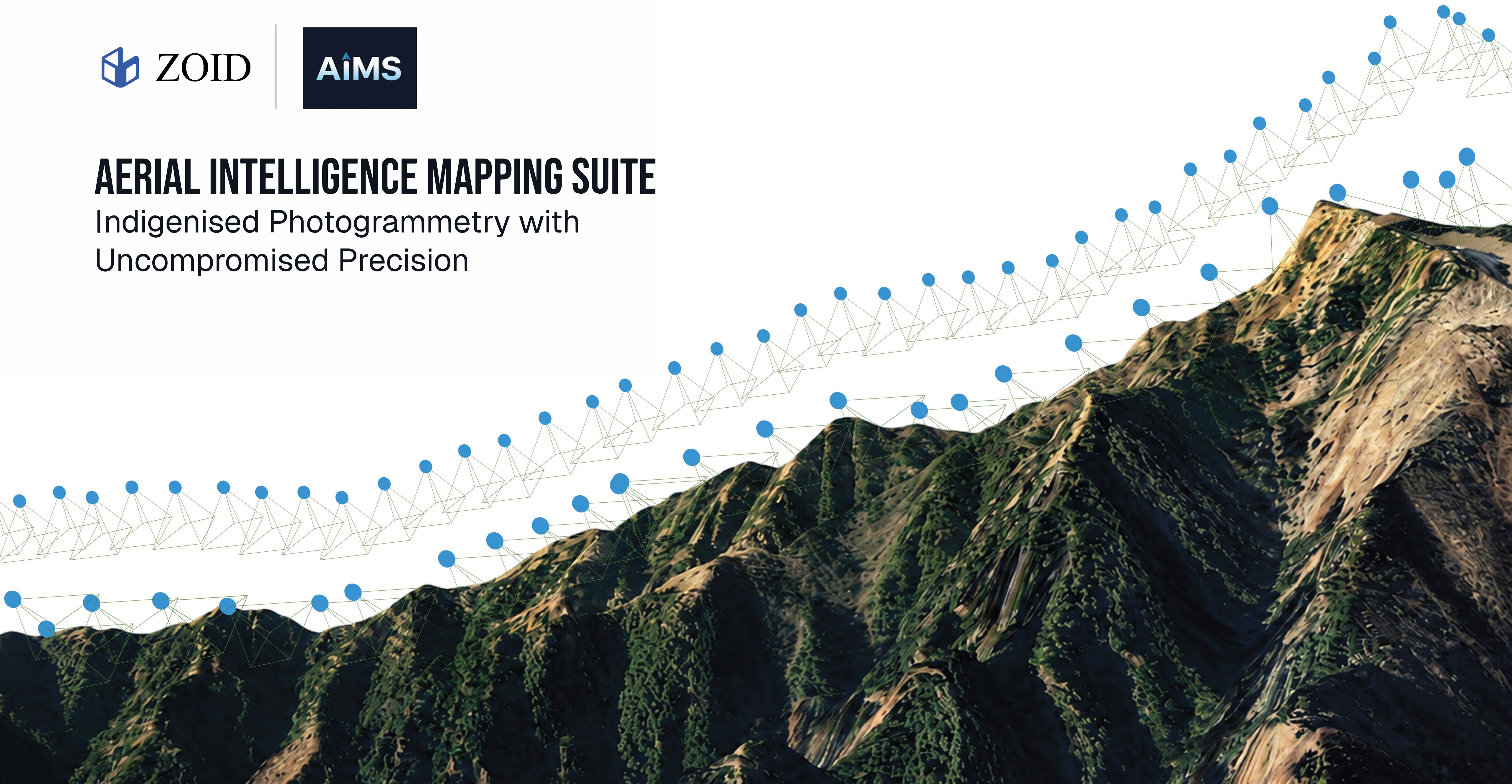




AiMS

AERIAL INTELLIGENCE MAPPING SUITE

Indigenised Photogrammetry with
Uncompromised Precision



WHY CHOOSE AIMS 3D?

AIMS 3D is a advanced photogrammetry software that takes a set of overlapping photographs and turns them into accurate, georeferenced 2D maps and 3D textured models. Purpose-built for mission-critical geospatial operations, AIMS 3D then automates the complete photogrammetric pipeline, from image alignment and dense point cloud generation to mesh reconstruction, DSM/DTM production, and orthomosaic export. This software is developed prioritising operational ease, such that no training in required to begin operations with AIMS 3D.

98% Mapping Precision

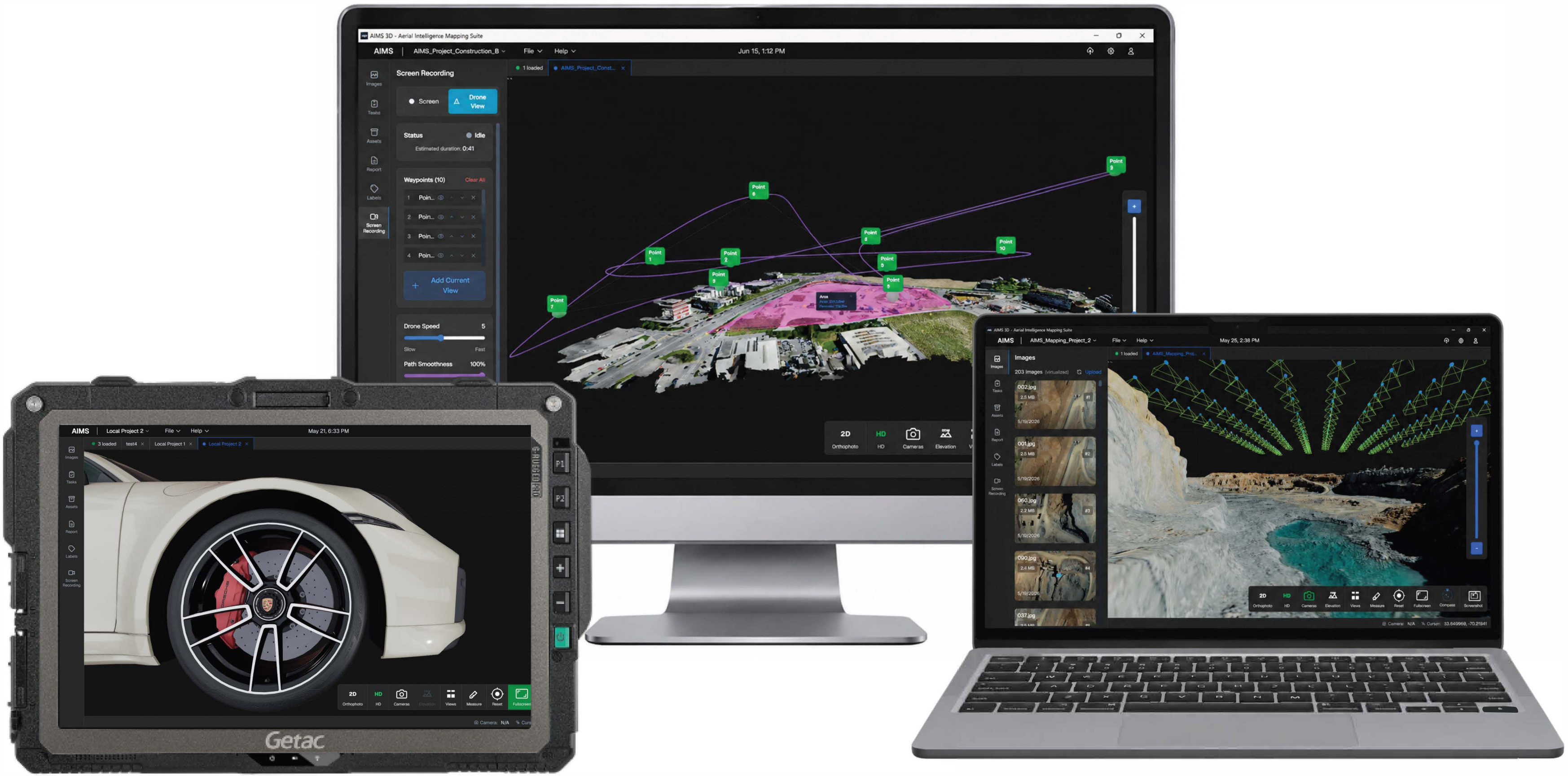
Stop guessing & start measuring with absolute accuracy. Syncing RTK/PPK & image data enable the software to builds ultra-clear & sharp 2D and 3D textured maps with sub-cm level and survey-grade precision.

5x Processing Power

Don't let slow rendering stall your mission. AI-driven engine uses the workflow of your CPU and GPU to process high-quality 3D models 5x faster than the competition, turning hours of waiting into mere minutes.

Intuitive Command Interface

A guided, simple workflow. Instead of exposing dozens of technical parameters, AIMS 3D uses a five-step project wizard and four quality presets. You do not need to be a photogrammetry expert to get good results.



FIELD OF APPLICATION

MAPPING & SURVEYING

AIMS 3D processes overlapping aerial imagery into a complete suite of survey-grade geospatial products, all within a single guided workflow. Georeferenced orthomosaics provide map-accurate imagery; the level of accuracy is even comparable with Google Earth and if computation power is not a limit then using LiDAR and AIMS 3D, multiple projects can be merged to map the entire earth as well. Every deliverable carries a quality report documenting the accuracy, calibration, and reconstruction statistics that meet professional survey standards.

Features

Mapping Details

988453 sq. mtr. of area mapped with 1600+ images shown below

2-5 cm Accuracy

Highly precise GPS accuracy achieved by RTK/PPK integration & GCP inputs

5x Processing Time

Complete map processed within 27 minutes on a ruggedized server



DEFENCE

AIMS 3D delivers even in contested terrains. Processing ISR drone imagery with no cloud and exposure, AIMS 3D produces georeferenced 3D terrain, 2D orthophotos, and elevation maps that meet precision demands of tactical planning. Purpose-built for the armed forces, there is a minimal learning curve and easily integrated for zero disruption of operations.



Sold 1000+ licenses to the Indian Army



AES-256 encryption across all stored and exported project data



Compliant with ISO 8803:2025, 19115 and 25010



Compliant with IEEE 12207

2018 2007

FIELD OF APPLICATION

CONSTRUCTION

From site inspection to progress documentation and final inspection of roads, bridges, dams and transmission lines, AIMS 3D transforms drone imagery into a visual construction progress record. Verified DSMs quantify earthwork volumes and track progression. Textured 3D models document structural completion at every milestone. Marketing-grade fly-through animations produced directly in the platform; showcasing developments to buyers and investors.

Features

Mapping Details

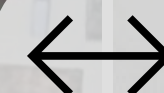
132699 sq. mtr. area accurately mapped with 198 images under 20 minutes with laptop meeting standard requirements

Progress Tracking

Customers can get a clear understanding of progress of the projects with 3D models mapped in minutes

Fly-through animations

Give real-estate developers, product teams, and brand agencies premium visual content on the same timeline as the survey.



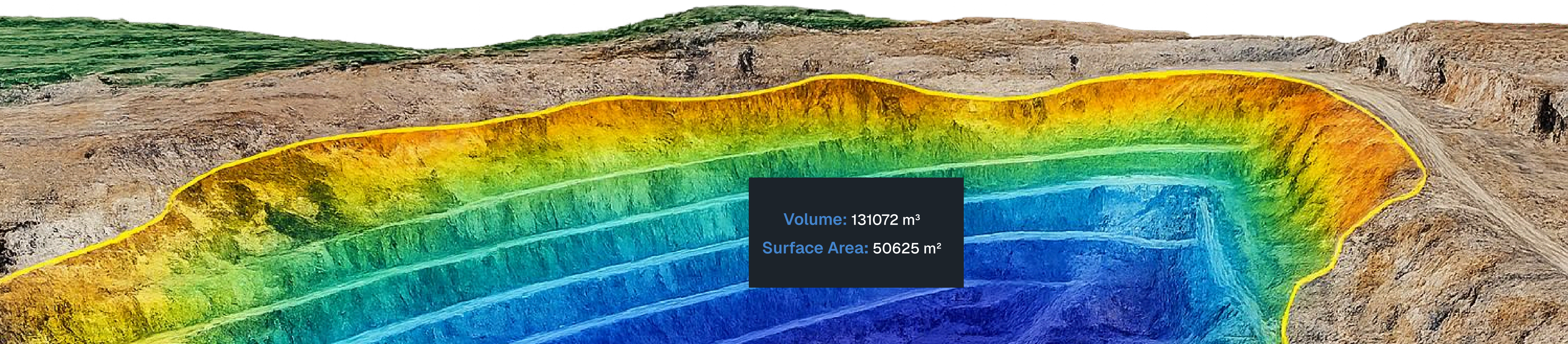
FIELD OF APPLICATION

MINING & QUARRYING

AIMS 3D replaces manual survey crews with drone-captured DSM and DTM data, delivering accurate stockpile volumes, pit progression measurements, and cut-and-fill calculations in hours rather than days. Classify terrain automatically, extract bare-earth elevation models, and compare documented surveys to track precise extraction rates and material movement.

Features

Quantification Volume of excavated space measured and labelled below for quantifying volume of extracted material	33 million points Dense point clouds exceeding 33 million points for high-fidelity site documentation	Integration LAZ point cloud export for integration with mining-grade GIS and survey platforms
---	---	---



AGRICULTURE

AIMS 3D processes both standard and multispectral imagery to support crop monitoring. A multispectral camera captures beyond the visible spectrum, which reveals crop health, stress, and vigour that the human eye cannot see. AIMS 3D produces the orthomosaic and the per-band imagery needed to compute vegetation indices such as NDVI. These index maps show which parts are thriving, and which need attention, guiding irrigation, fertilization and treatment decisions.

Features

Drainage Tracking

Accurately identify the drainage links for maintaining effective crop water stress

Perimeter Definition

Measure perimeter as shown below for operating without encroaching boundaries

Mapping Details

1469 images used as input for mapping multiple fields in 51 minutes



ARCHAEOLOGY

Archaeological sites demand documentation at a fidelity that conventional photography cannot deliver. AIMS 3D produces photorealistic 3D digital twins of excavation sites, standing structures, and landscape features; capturing surface geometry, texture, and spatial context simultaneously, without physical contact. From trench surveys requiring sub-centimetre detail to landscape-scale heritage mapping, AIMS 3D creates permanent, measurable records that support research, conservation planning, and public engagement equally.

Features

Construction

Phone-based video can also be used to get resolved surface texture and structural detail of the archaeological sites like the Colosseum

Outputs

Georeferenced outputs compatible with archaeological GIS databases and national heritage registries

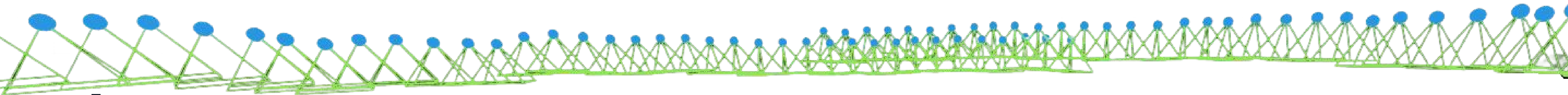
Mapping Details

25,000 sq. mt. mapped with 400 images. High overlap used for capturing structural detail of Colosseum



ARCHITECTURE

AIMS 3D captures the complete built environment (exterior facades, rooftop geometry, and interior spatial volumes) within a unified photogrammetric workflow. Circular multi-pass oblique flights reconstruct building envelopes in full 3D detail, while terrestrial and spherical camera inputs extend coverage to interior spaces without additional software. Outputs integrate directly into Blender, SketchUp, 3ds Max, and AutoCAD, giving architects, engineers, and contractors a verified as-built model from the first day of survey.



Features

Oblique Images

Oblique flight reconstruction capturing all four facade orientations and blind spots.

Video-based construction

Interior 3D reconstruction from video walkthrough and spherical camera inputs

Mapping Details

2750 sq. mtr. mapped with 117 images.



FIELD OF APPLICATION

INTERIOR

AIMS 3D brings the same photogrammetric precision that maps terrain from altitude to the spaces within walls. Upload a steady video walkthrough or a set of overlapping interior photographs and AIMS 3D reconstructs the complete volumetric geometry of any enclosed environment: rooms, corridors, vaulted chambers, industrial facilities, or underground spaces. The result is a navigable, measurable 3D model that documents spatial relationships, surface conditions, and architectural detail with a fidelity no floor plan can match.

Features

Processing

Video-native processing:
MP4, MOV, and AVI inputs
with automatic frame
extraction

Coverage

Interior mapped through a
single video in a phone
covering the entire monument.

Construction

Full interior mesh
reconstruction with
photorealistic texture from
source imagery



FIELD OF APPLICATION

MARKETING

AIMS 3D produces marketing-grade 3D assets directly from photos and videos. Photorealistic HD meshes showcase products, properties, and environments at a fidelity that stops audiences mid-scroll. Cinematic fly-through animations generated in the platform using configurable waypoints and path smoothing, give real-estate developers, e-comm websites, product teams, and brand agencies premium visual content on the same timeline as the survey. The outputs from AIMS 3D can be exported for viewing through AR & VR.

Features

Visualization

HD GLB mesh output with full-resolution texture atlas for photorealistic product visualization

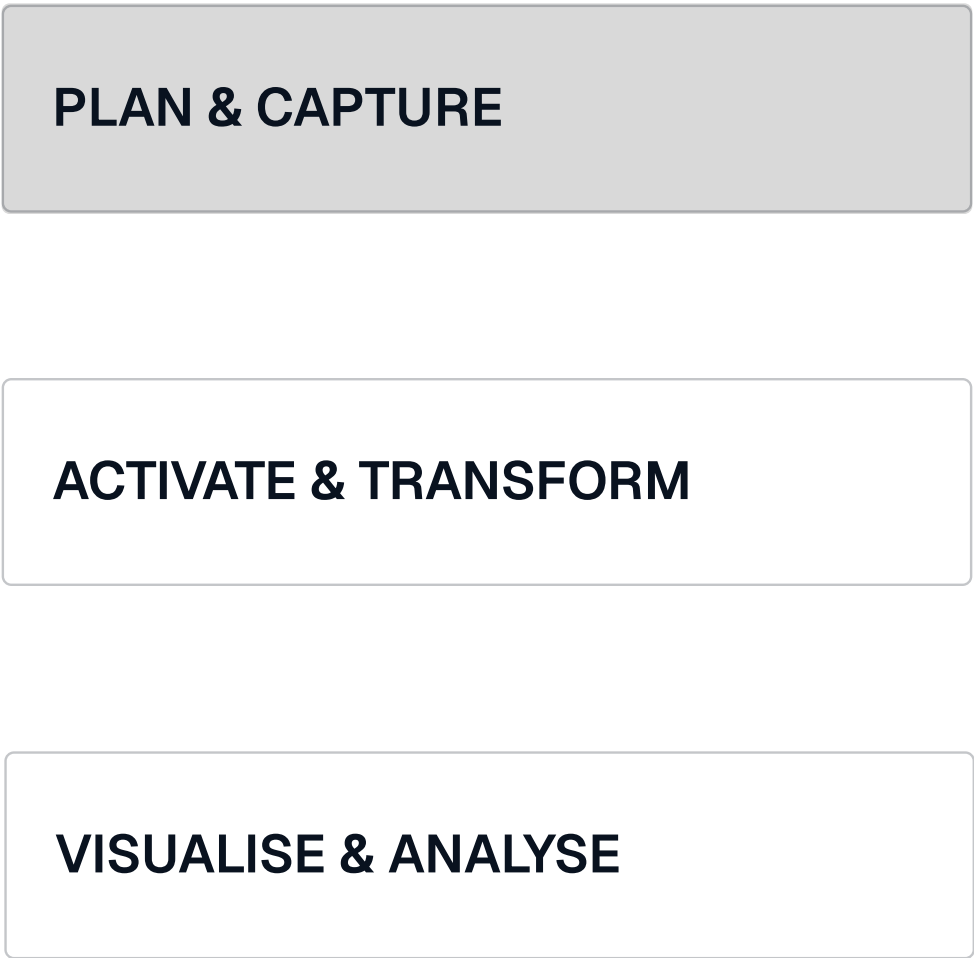
Sharing

Web-shareable interactive 3D models via Sketchfab and Cesium ion; no software required for just viewers

Compatibility

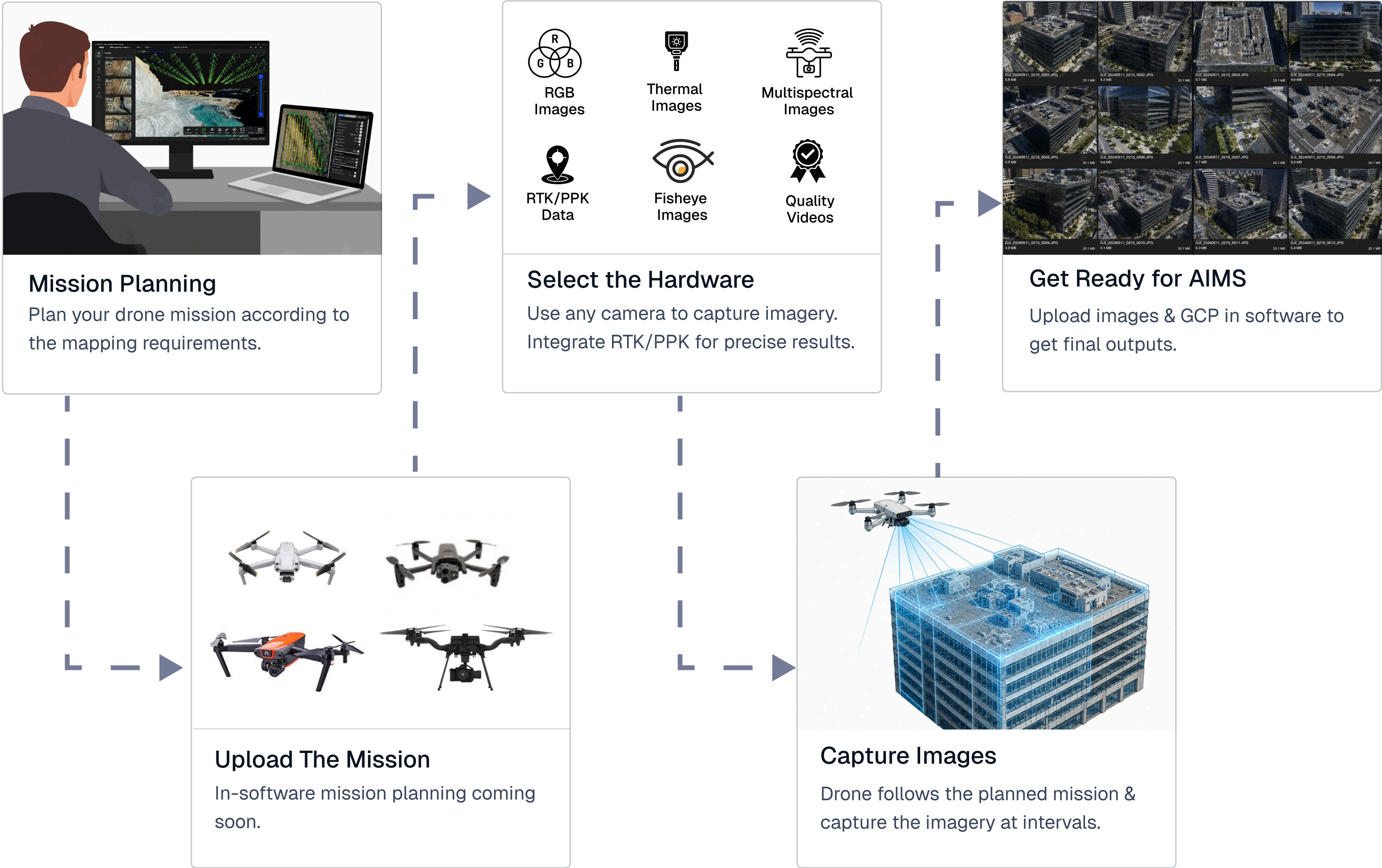
Compatible with Blender, 3ds Max, and Unreal Engine for advanced post-production and rendering pipelines

WORKFLOW



WORKFLOW

PLAN & CAPTURE



WORKFLOW

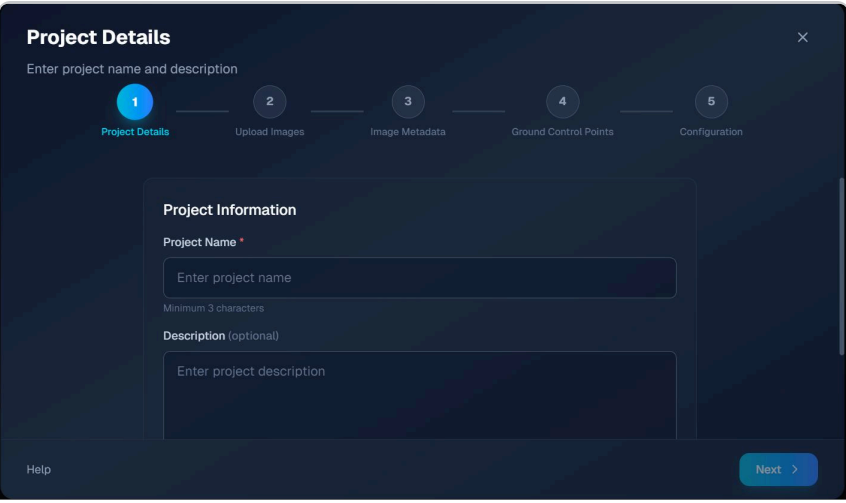
PLAN & CAPTURE

ACTIVATE & TRANSFORM

VISUALISE & ANALYSE

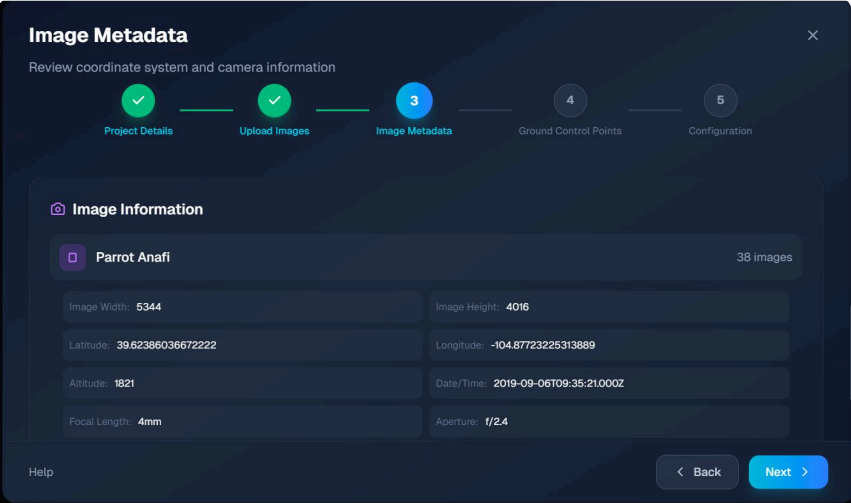
WORKFLOW

ACTIVATE & TRANSFORM



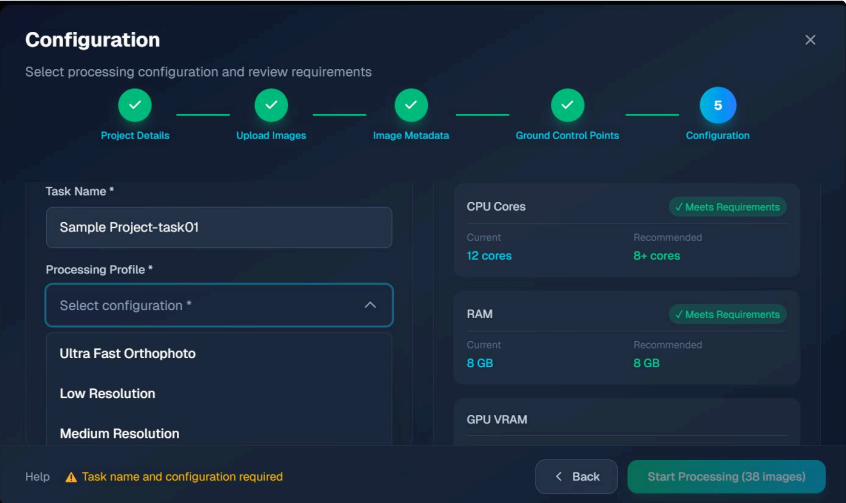
One-Click Upload

Drag and drop your raw data. The software automatically organizes and prepares it for processing.



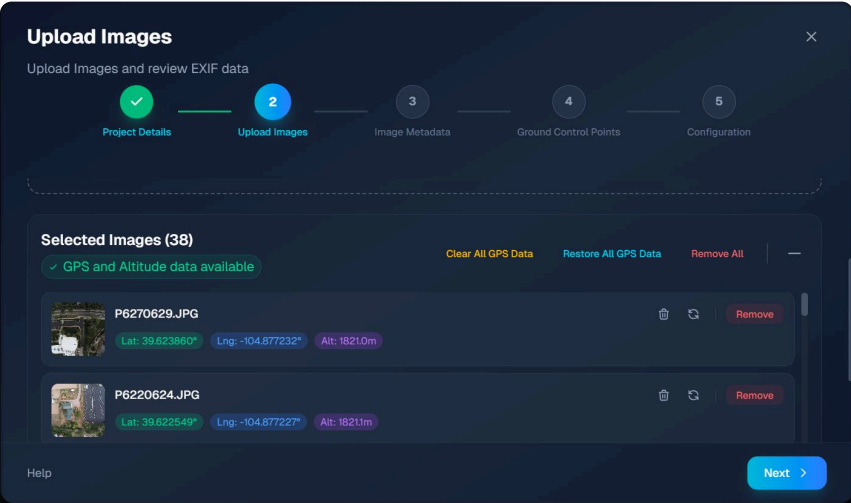
Automated Data Preparation

Streamline your workflow with intelligent pre-processing. You set the boundaries, the software handles the science.



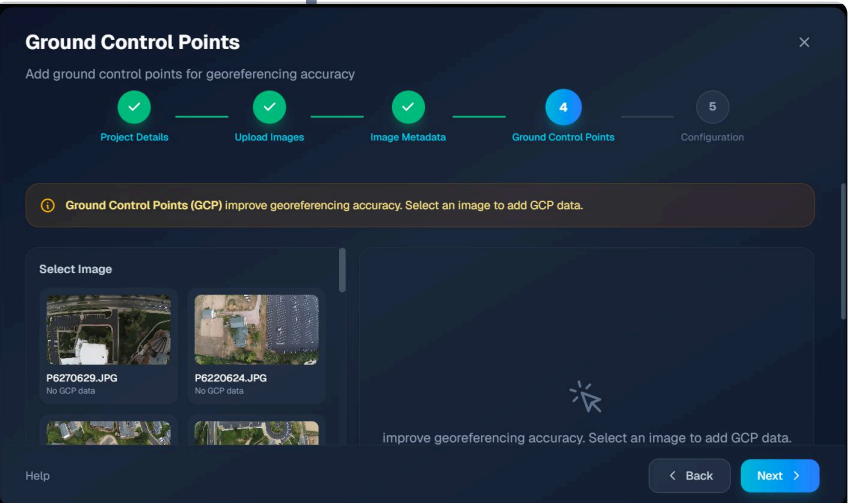
Set Processing Configuration

Start automate processing using standard processing configuration. High Resolution gives best results.



RTK/PPK Data Extraction

The software automatically gets GPS & Camera information. Provision to enter manually also available.



GCP Integration

Mark GCP directly from images to improve geo-location accuracy. Provision to enter manually available.

WORKFLOW

PLAN & CAPTURE

ACTIVATE & TRANSFORM

VISUALISE & ANALYSE

WORKFLOW

VISUALISE & ANALYSE

1 Navigation Modes

Explore 2D Maps, 3D models, DSM & DTM.



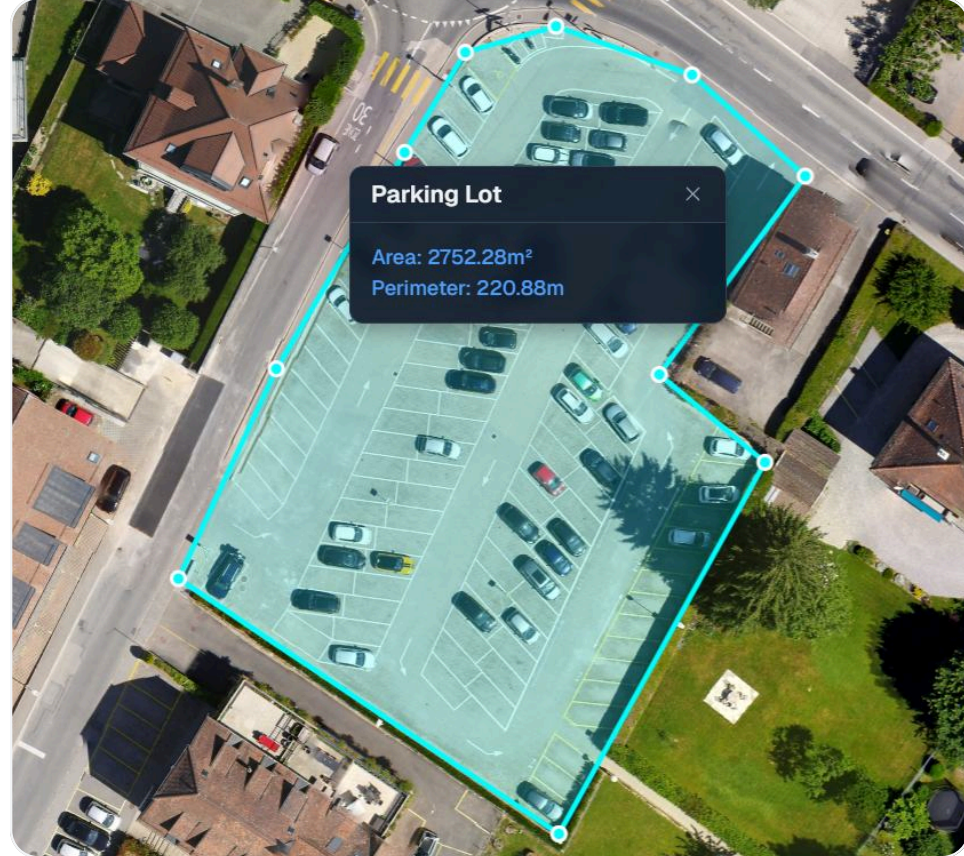
Integrate your outputs with

-  QGIS  ArcGIS  Civil 3D  Cesium

- ✓ Use mouse, trackpads & touch-screens
- ✓ Direct towards NORTH available
- ✓ Single click-to-reach anywhere on map

2 Measurement Tools

Mark labels or measure distances, heights and areas.



-  Distance  Height  Area  Saved Labels

- ✓ Provision for globally used units
- ✓ Accuracy same as Google Earth
- ✓ Export in .csv format for more details

3 Volumetric Estimations

Calculate volumes and cut/fill.



Net Volume **235m³**

- ✓ Provision to import external point cloud
- ✓ Depth/height base color coding
- ✓ Export in globally used units

WORKFLOW

PLAN & CAPTURE

ACTIVATE & TRANSFORM

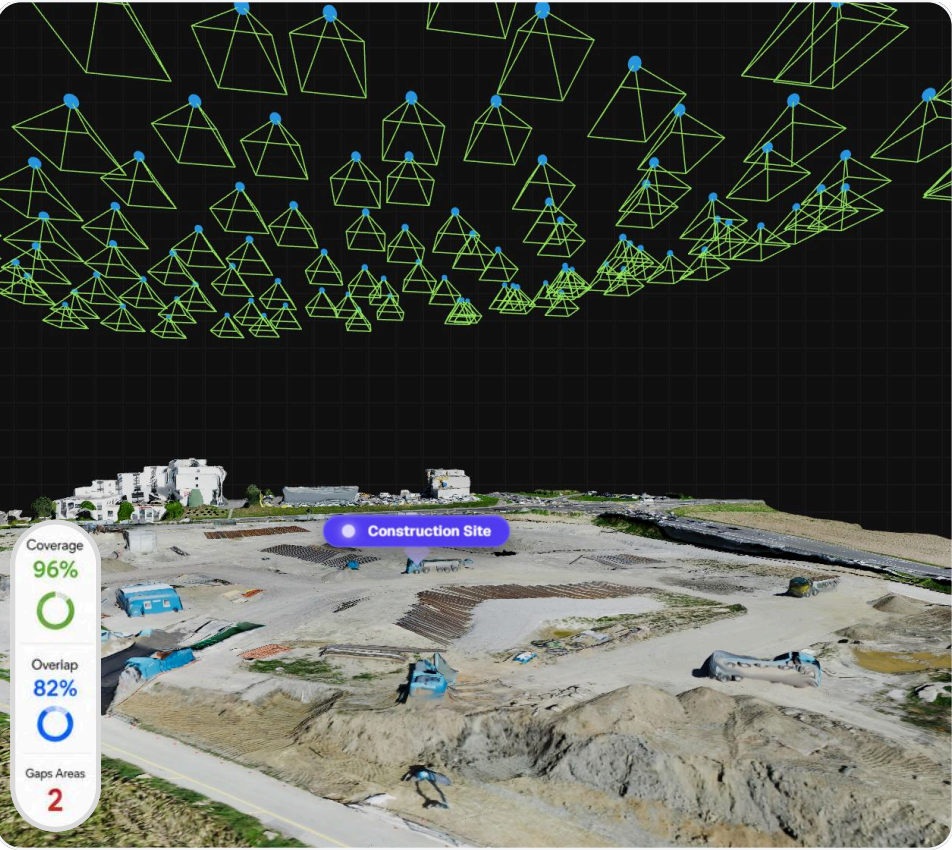
VISUALISE & ANALYSE

WORKFLOW

VISUALISE & ANALYSE

4 Camera Angle Visualisation

View image position & camera angles.

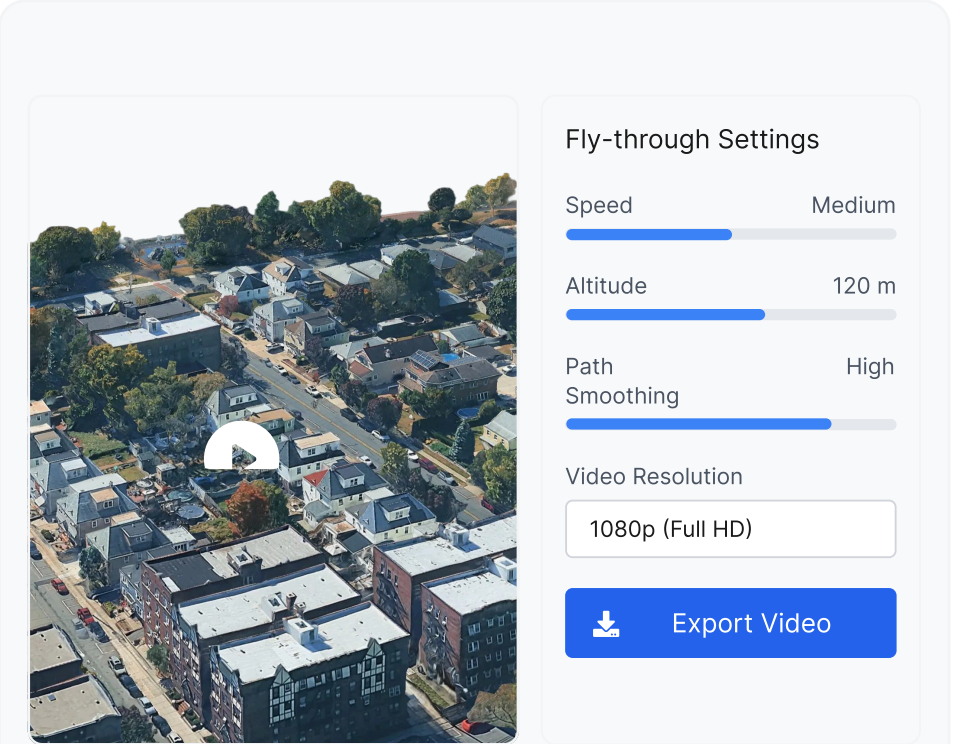


- Understand coverage density
- Evaluate overlap
- Identify gap areas

- ✓ Click-to-reach from captured angles
- ✓ Used for fixing ghosting & errors
- ✓ Generate presentable fly though

5 Drone View Recording

Play the animation in real-time.

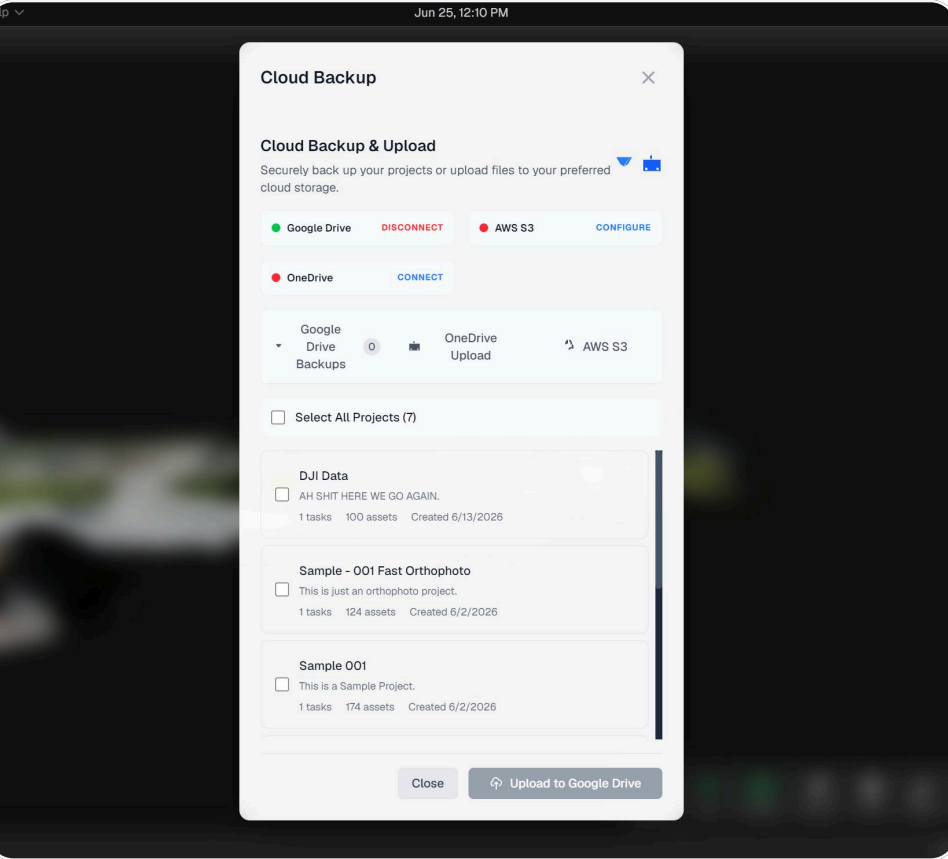


- Real Estate Marketing
- Stakeholder Briefings
- Site Documentation

- ✓ Generate custom camera trajectories
- ✓ Provision to alter speed & smoothness
- ✓ Cinematic export in 1080p resolution

6 Export & Share

Use Standard camera presets for consistent views.



- Single click download
- All cloud server supported
- Get detailed quality report

- ✓ Provision to export all assets
- ✓ Single click cloud collaboration
- ✓ Compatible with all cloud servers

WORKFLOW

PLAN & CAPTURE

ACTIVATE & TRANSFORM

VISUALISE & ANALYSE

WORKFLOW

VISUALISE & ANALYSE

- 7

Click-to-Navigate

Click any label or measurement to fly the camera directly to that location.
Easily navigate in large maps without manual searching.

Saved Items

Labels

Measurements

Search...

Site Office

Stockpile A

Excavation Area

Water Tank

Access Road

+ Add New Item

1

Click an item

Select any saved label or captured image.



2

Reach at destination

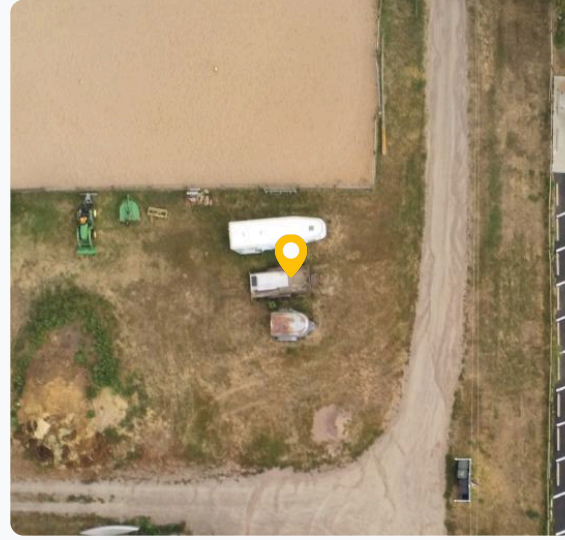
Automatic navigation to assigned location.



3

Get Details

Get detailed information of selected label instantly.



-  Smooth navigation

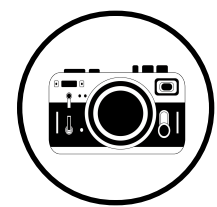
 Save time

 Cover more ground

 Better site awareness

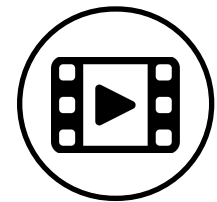
FEATURES

INPUTS :



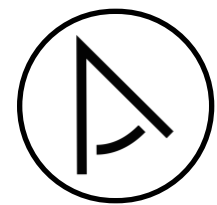
Hardware agnostic system

Compatible with compact, DSLR, thermal, multispectral, fisheye, 360° and large-frame cameras



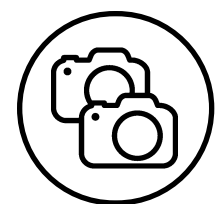
Video input accepted

Automatic extraction of frames from videos at customised intervals.



Aerial, nadir, oblique and terrestrial imagery support

Process images taken from any angle, any platform



Multi-camera support

Accepts inputs from multiple cameras in same project.



RTK/PPK and IMU data support

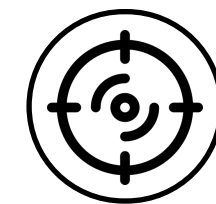
Generates faster, precise and more robust 3D textured mesh



Ground Control Points Support

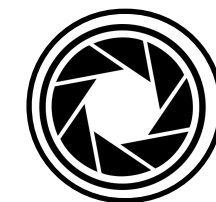
Import and edit GCPs to improve the mapping accuracy

PROCESSING :



Automatic Camera Calibration

Optimize internal camera parameters (focal length, principal point of auto collimation and lens distortions)



Rolling Shutter Effect Correction

For maintaining accuracy even when flying fast and low



Radiometric Processing & Calibration

Accounting for illumination and sensor influence on images



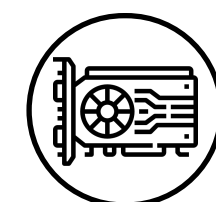
Automatic DTM/DSM extraction

Automatic removal of objects to create bare-Earth model



Standard Processing Templates

Automate processing and output generation; easy for first timers



Multiprocessor CPU + GPU support

Increased processing speed using CPU cores, threads and GPUs

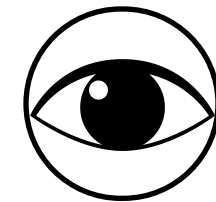
FEATURES

INTERACTIONS :



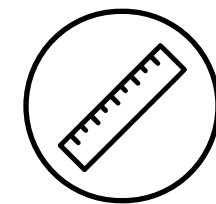
Seamless Project Visualization

Assess high quality 2D Maps, 3D Textured Mesh & DEMs



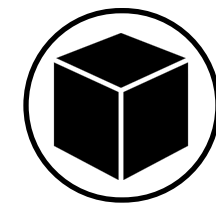
Easy Navigation Modes

View generated maps & meshes in standard, trackball or FPV modes



Accurate Measurement tools

Measure polylines and surfaces with Google Earth-like precision



Multi-camera support

Accurately calculate fill in & cut out volumes, stockpiles & under construction sites.



Fly-through Animation

Create a camera trajectory, play and export the real-time animation



Click-to-reach Support

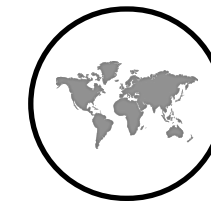
Click-to-reach provided for any image, label, measurement & camera

EXPORT & SHARE :



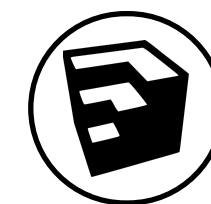
Specialized Output Handling

All project related outputs and secured separately in Assets Folder



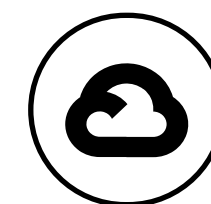
Orthophoto Export

Includes 2D Maps, DSM/DTM available in .jpg, .png & .tif file formats



Mesh Exports

Includes 2.5D/3D Mesh in Standard & High Definition available in .glb, .mtl, .obj & .ply file formats



Cloud Share Support

Seamlessly activate your drives and local AWS servers to upload all assets

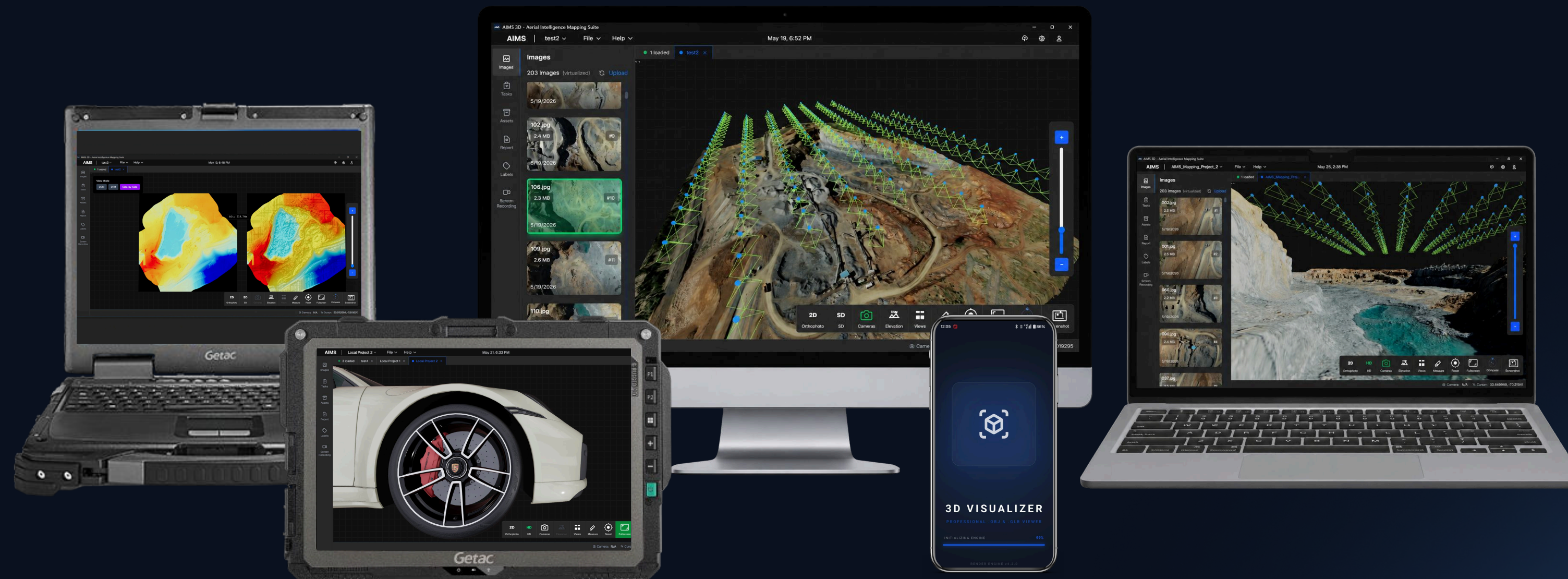
MULTI-LINGUAL SUPPORT :



Supports 12 Global Languages

Including Hindi for Indian customers & defence personnel.

READY TO GET STARTED? GET YOUR 7 DAYS FREE TRIAL NOW



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