NEXTCORE

POWERED BY AIRSIGHT

Built for simplicity. Tested for durability.

Ultimate Aerial Mapping LiDAR Solution
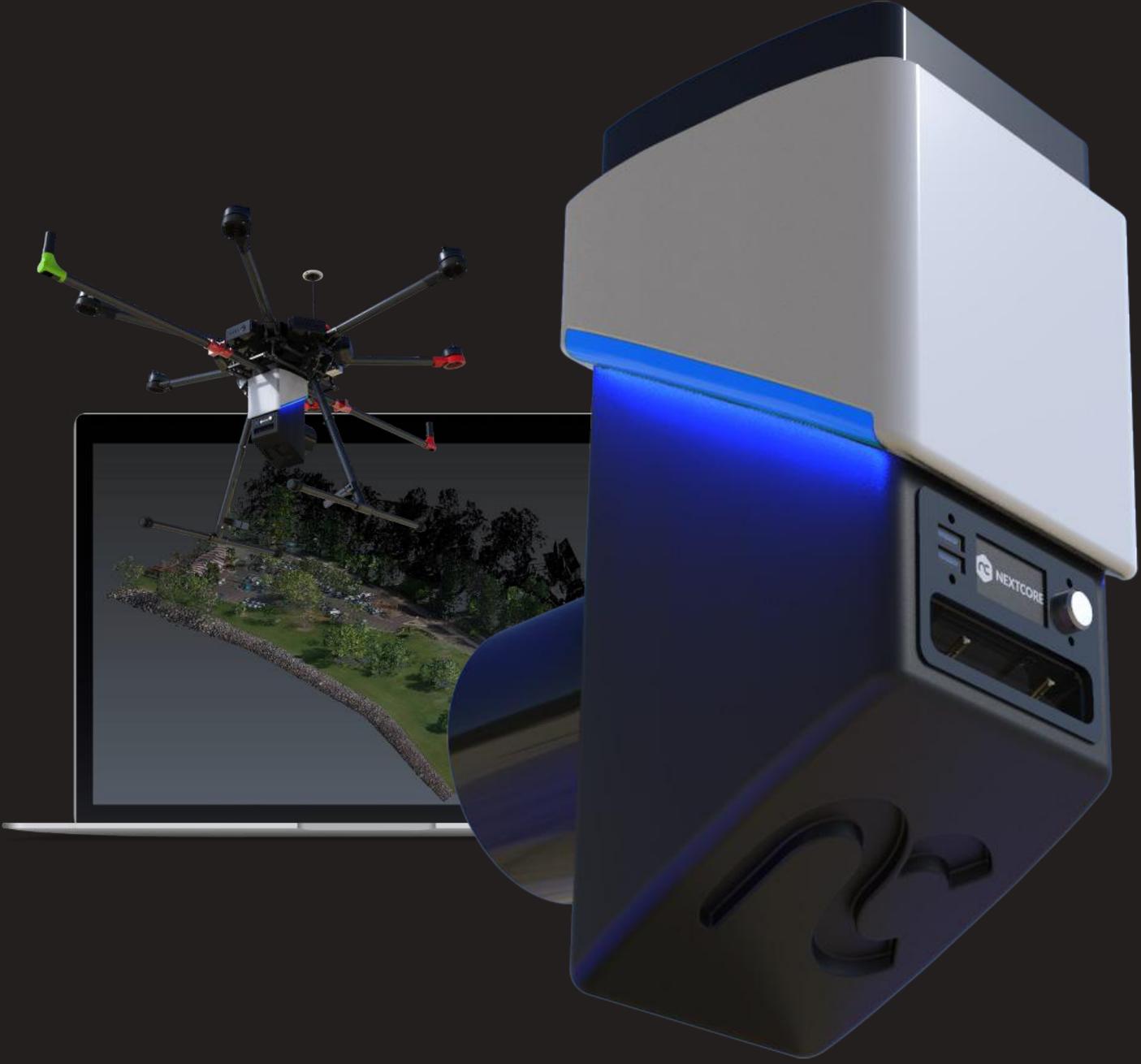
NextCore RN50

A user friendly system to suit most users

Accurate to 50mm

Lightning fast cloud based processing

Compatible with 3rd party RINEX ground stations

The only Drone LiDAR unit available with a 2 Year Warranty

NextCore RN50 Workflow

UAV with
NextCore Payload

USB Upload

RINEX Data

NextCore
PLATFORM

NextCore Cloud Processing
& Job Management

.LAS

Export .las
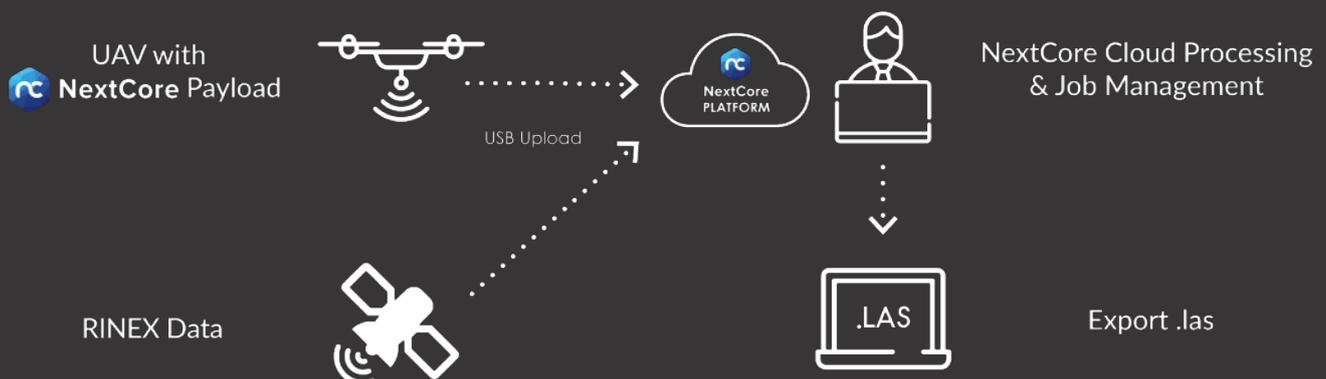
NextCore Fusion

Desktop and Cloud based Processing Software

Fast processing (3x flight time)

Select (flight lines, distance from scanner, point cloud density, flight line overlap)
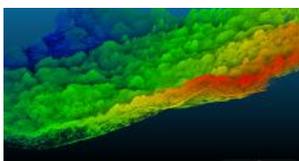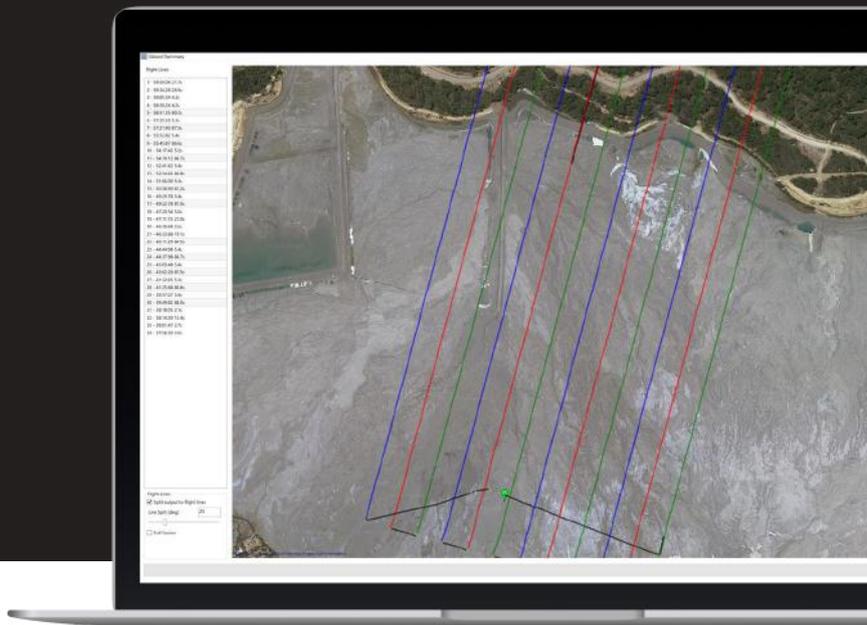
Scan up to 50 hectares in a single flight at 10 m/s

Designed specifically for the DJI m600

Superior canopy penetration

50mm RMSE

Truly Turn-Key

NextCore is specifically designed to create perfect LiDAR point clouds, every time. No complicated software or convoluted workflows needed.

Cloud-Based Automated Post-Processing

Automated Cloud post-processing of NextCore data removes the need for additional software and IT infrastructure to generate and manage LiDAR data.

Easily Integrated Across Drone Platforms

NextCore is a self-contained data capturing tool.

Fast Data Turnaround

Automated QC and cloud-based post-processing allows the NextCore system to have processed data ready for use, often before you're even back in the office.

Accessible LiDAR

NextCore uses cutting-edge technology reducing the cost of capturing and processing high-quality spatial data.

Automated Capture of High Quality Spatial Data

Combining NextCore with the flight planning app of your choice allows you to capture perfect spatial data at the push of a few buttons.

Technical Specifications

Recommended UAV: DJI M600 Pro

Specifications

Absolute Accuracy: < 50mm RMSE @ 50m Range	
PP Attitude Heading RMS Error: 0.03° IMU	
Payload Weight: 1.8KG	
Payload Dimension: 16L x 12W x 23H (cm)	
M600 Mounting Kit Weight: 0.6KG	
M600 Mounting Kit Boom Span: 1.6M	
Dimensions: 265 H x 155 L x 145 W (mm)	
Laser Range: >150 m @ 80% Reflectivity	
Flight time on M600: 23 minutes (on M600 with TB48s)	
Scan area in one flight: 50 hectares*	

*on M600 with TB48 @50m @50m line spacing

LiDAR Sensor

Laser Properties: Class 1 (eye safe), 905 nm	
Field of Range: 20˚ Vertical / 360˚ Horizontal FOV	
Number of Returns: 3	
Dimension in LiDAR Sensor: 1.0 m / 150 m	
Number of Lasers/Planes: 8	
RMS Ranging Error: 30 mm	
Recommended Scanning Height: AGL 20-60m	
Scan Rate: 420k shots/s, up to 1.26M points/s	

NextCore Fusion System Requirements

Operating System: Windows 10	
RAM: 4 GB (min), 32 GB Recommended	
Hard Drive Space: 500MB (min)	
Average Post-Processing Time: 3 times flight time	

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Example Data Map

Introduction:

Provided data is organised into seven relevant industries or applications that the NextCore system has proven efficiencies. These are examples only, hence the system is not limited to these applications. Most of the example data was used in real world scenarios and solved real world problems.

File Types:

The NextCore systems primary output is a .LAS/.LAZ file. These file types are point cloud data. These files can be used in all point cloud visualisation or processing software. Processing software can reduce these point clouds into surface models and features in the form of triangle (surface), line (contours) and point (features) files. DXF files are provided as part of the example datasets and can be imported into all relevant software.

Recommended Software:

Provided is the **3DReshaper FreeViewer**. This freely available software can be used to import and visualize point cloud data. Provided with each example data set is a .RSH file that will contain all provided data including reductions.

Cloud Compare is a freely available and open source point cloud processing software. This software can be used to process point clouds.

Any CAD software such as **AutoCad** can used to import .DXF files. CAD software is used in design and presentation of data.