AERIAL REALITY CAPTURE SOLUTIONS

Aptella
AUTOMATION +
POSITIONING TECH

Why Aptella

We’re there when you need us

RPAS solutions for industrial applications that are safe, accurate and robust. We have selected industry-leading survey grade drones for sale from leading suppliers including, DJI, Quantum Systems, Metashape and more to offer RTK or PPK aerial mapping results.

Aptella’s expert team is unrivalled in the industry - our people are passionate about what they do and committed to supporting our customers whenever and wherever they’re working.

With more than 400 employees across Australia, New Zealand and Southeast Asia, no other company can deliver the depth of expertise and boots on the ground support that Aptella has to offer. We source the latest and most advanced technology from leading suppliers worldwide, ensuring it is fit for the local market and assisting customers with training, service, calibration and support to suit their unique business needs.

Workshop services

Comprehensive product service, maintenance, repairs and advice are provided via our local service centres with manufacturer-trained technicians. We guarantee all our work and can supply calibration certificates if required.

Training

Our expert trainers are here to help you get productive immediately and enable you to take control of your digital jobsite. Our training is application specific and tailored to your industry, providing the perfect foundations to tackle any task or project.

Training

Get CASA-certified with our full suite of RPAS courses!

Employee training is an essential investment in the continued growth and success of any business. Upon initial equipment or software delivery, users typically receive basic training to get started. However, once the foundational skills are mastered, further training is crucial to unlocking the full capabilities of the system. This enables users to optimise performance and enhance productivity.

Our structured campus training courses provide customers with the opportunity to deepen their knowledge through formal, instructor-led sessions, complemented by hands-on field exercises where applicable. With a focus on affordability, our courses are designed to be a cost-effective way to improve skills and maximise the benefits to your business.

Equip your team with the expertise needed to fully leverage RPAS technology and ensure continuous operational efficiency with our CASA-certified training programs.

RPAS Hardware Maintenance

Ensure your aircraft remains CASA-compliant and operates at optimal performance with our tailored maintenance packages. Our team of manufacturer-trained technicians, based in branches across Australia, New Zealand, and Southeast Asia, specialise in servicing and repairing your RPAS. Our comprehensive maintenance agreements include replacement components, annual inspections, and more, offering exceptional value while safeguarding your investment. With our expertise, you can trust that your aircraft will be maintained to the highest standards, ensuring reliability and compliance for every mission.

RPAS Support

Our RPAS Support service ensures that expert assistance is readily available whenever you need it. We prioritise minimising downtime, providing you with peace of mind knowing that our skilled team is dedicated to resolving your support requests promptly. Recognising the value of your time, we are committed to offering efficient and effective support, backed by a comprehensive range of services that deliver exceptional value for money. Let us assist you in maintaining peak performance, so you can focus on the task at hand with confidence.

DJI Dock 3

The Future of Autonomous Drone Operations

Equipped with Matrice 4D or Matrice 4TD high-performance drones, DJI Dock 3 empowers 24/7 remote operations and, for the first time, supports mobile vehicle-mounted deployment, effortlessly adapting to various environments. The drones utilize the same cameras as the Matrice 4 Series but offer improved flight and protection performance. They can also pair with DJI RC Plus 2 Enterprise for standalone use. With DJI FlightHub 2's intelligent features, pilots can significantly cut down on operational time and labor costs, maximizing efficiency and savings.

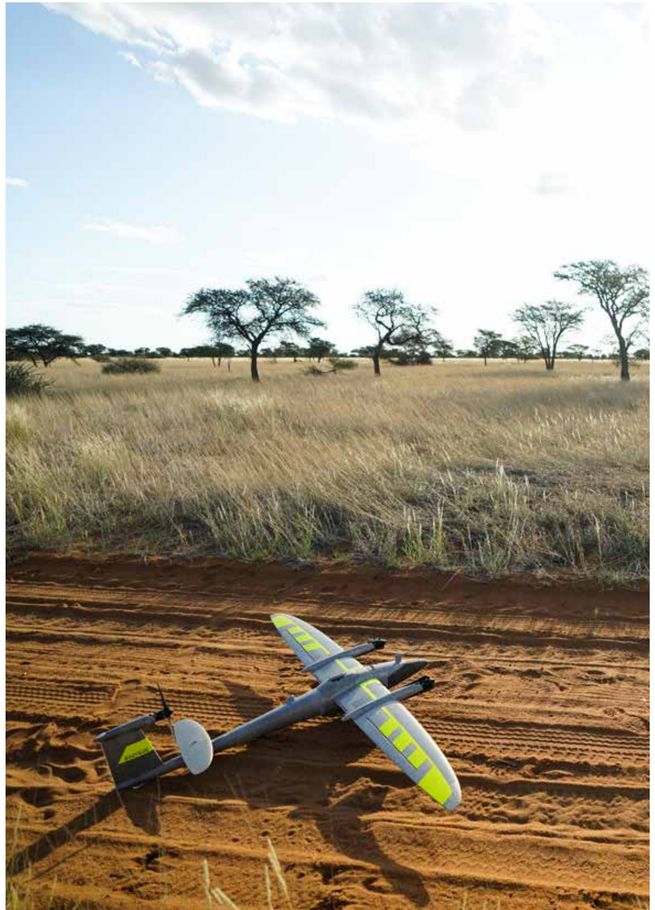
Trinity Pro

Precision Mapping for Large-Scale Applications

The latest Trinity Pro drone is a game-changer for large-scale mapping projects. With its powerful payload and cutting-edge technology, the Trinity Pro is designed to capture high-resolution imagery and LiDAR data over vast areas with unparalleled accuracy. Engineered for professionals in surveying, agriculture, construction, and environmental monitoring, the Trinity Pro excels in demanding conditions, offering long endurance and precise GNSS integration for superior geospatial data collection.Future-proof investment

- Extended Flight Time: Achieve longer mapping missions with fewer interruptions, enhancing productivity.
- Advanced Payload Options: Compatible with high-end RGB, multispectral, and LiDAR sensors for versatile data acquisition.
- High Precision GNSS: Ensures centimeter-level accuracy for large-scale mapping and modeling.
- Rugged Design: Built to endure harsh environments, making it ideal for remote and complex terrains.

Elevate your large-scale mapping operations with the Trinity Pro, delivering efficiency, precision, and reliability in every mission.



Quantum Systems Qube640 LiDAR Payload

Precision for High-Resolution Mapping

The Qube640 LiDAR payload from Quantum Systems is engineered for professional-grade mapping, offering superior accuracy and efficiency in capturing detailed 3D data. Compatible with a variety of UAV platforms, the Qube640 is ideal for applications such as topographic surveys, forestry, and infrastructure inspections, providing seamless integration and reliable performance.

- LiDAR Sensor: Velodyne VLP-16, offering a 360° field of view and 16 laser channels for high-density point cloud generation.
- Range: Effective range of up to 200 meters, ensuring precise data collection over vast areas.
- Point Cloud Density: Up to 600,000 points per second, delivering high-resolution data even in complex environments.
- Weight: 1.4 kg (payload only), ensuring minimal impact on UAV flight time and performance.
- Integration: Easy integration with various drone platforms, enhancing mission flexibility and efficiency.

The Qube640 provides unmatched data accuracy, enabling advanced mapping and analysis for a wide range of industries. Capture the detail, enhance the insights with Qube640.

Trinity Pro Payloads

Versatile Payloads for Precision Mapping

Unlock the full potential of the Quantum Systems Trinity Pro with its advanced suite of payloads, designed for high-precision geospatial applications.

- PhaseOne P5 128MP – Ultra-high-resolution mapping with unmatched detail for large-scale projects.
- Qube 640 LiDAR – Compact and efficient, delivering high-density point clouds for detailed terrain modeling.
- Sony ILX-LR1 – Lightweight 61MP full-frame sensor for crisp, high-resolution imagery.
- MicaSense Altum PT - captures synchronized multispectral, thermal, and panchromatic data for pixel-aligned outputs at incredibly high resolutions
- Oblique D2M – Multi-angle oblique imaging for enhanced 3D modeling and urban mapping.

Seamlessly integrated, these payloads empower professionals with unparalleled accuracy and efficiency, ensuring superior results in aerial surveying, inspection, and mapping missions.

DJI Matrice 4 Series

Elevate Your Enterprise Operations

Introducing the DJI Matrice 4 Series, a compact and intelligent multi-sensor flagship drone lineup designed to revolutionise enterprise applications. This series includes two advanced models: the Matrice 4T (M4T) and the Matrice 4E (M4E), each tailored to meet specific industry needs.

Matrice 4T (M4T): Comprehensive Aerial Intelligence

The M4T is equipped with a six-module payload, featuring:

- Wide-Angle Camera: 1/1.3-inch CMOS sensor with 48MP resolution for expansive, high-detail imagery.
- Medium Telephoto Camera: 1/1.3-inch CMOS sensor with 48MP resolution, offering a 70mm equivalent focal length for mid-range observations.
- Telephoto Camera: 1/1.5-inch CMOS sensor with 48MP resolution, providing a 168mm equivalent focal length for detailed distant inspections.
- Laser Range Finder: Measures distances up to 1800 meters, enhancing target acquisition and measurement accuracy.
- Infrared Thermal Camera: 640×512 resolution, ideal for thermal imaging applications.
- Near-Infrared (NIR) Auxiliary Light: Enhances visibility in low-light conditions.

This configuration makes the M4T ideal for public safety, emergency response, and infrastructure inspections.

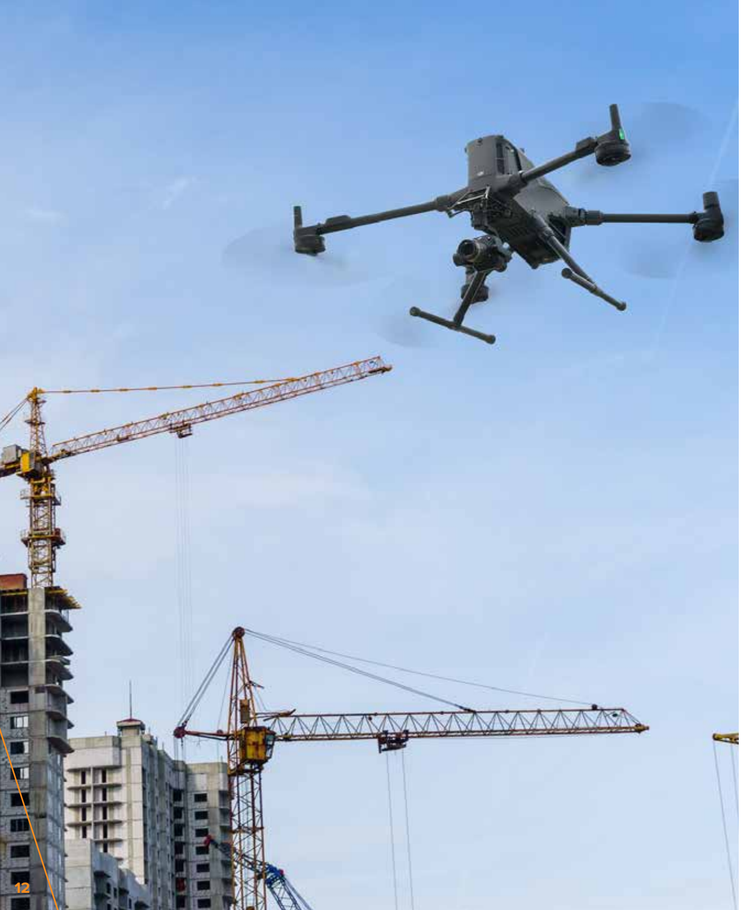
Matrice 4E (M4E): Precision Mapping and Surveying

The M4E is optimised for geospatial applications, featuring a four-module payload:

- Wide-Angle Camera: 4/3-inch CMOS sensor with 20MP resolution and a mechanical shutter, ensuring high-precision data collection without motion blur.
- Medium Telephoto Camera: 1/1.3-inch CMOS sensor with 48MP resolution, offering a 70mm equivalent focal length for detailed imaging.
- Telephoto Camera: 1/1.5-inch CMOS sensor with 48MP resolution, providing a 168mm equivalent focal length for capturing distant subjects.
- Laser Range Finder: Measures distances up to 1800 meters, facilitating accurate terrain mapping.

This setup enhances efficiency in surveying, construction, and mining operations.

Both models incorporate advanced AI capabilities, improved safety features, and enhanced sensing technologies, setting a new standard in intelligent aerial operations. Elevate your enterprise with the DJI Matrice 4 Series.



DJI Matrice 400 RTK

Matrice 400's flight capabilities are outstanding, offering up to 59 minutes of forward flight time even with a payload, and up to 53 minutes of hovering duration. These capabilities make it a reliable tool for long-duration and continuous operations such as search and rescue, firefighting, and large-scale mapping. It can also avoid large obstacles like buildings and mountains at flight speeds of up to 25 m/s.

- 59 mins of flight time with a payload
- Maximum flight/route speed of 25 m/s
- Power-line-level obstacle sensing
- 6 kg payload capacity
- Real-time terrain follow
- Brand new smart battery station

DJI Zenmuse L2

Precision LiDAR for Aerial Mapping

The DJI Zenmuse L2 is a high-precision LiDAR payload designed for aerial surveying, offering real-time, high-density 3D data capture. Featuring an integrated LiDAR module, RGB camera, and high-accuracy IMU, the L2 ensures precise mapping and modeling for industries such as construction, forestry, and surveying.

- LiDAR Sensor: 240,000 points per second, max detection range 450m @ 50% reflectivity
- RGB Camera: 20 MP 4/3 CMOS sensor for detailed true-color point clouds
- IMU System: High-accuracy IMU with centimeter-level precision
- Scanning Modes: Repetitive and non-repetitive scanning for adaptable data collection
- Compatibility: Optimised for DJI Matrice 350 RTK for seamless operation

DJI Zenmuse P1

Precision Meets Efficiency

The DJI Zenmuse P1 is a game-changer for aerial photogrammetry, designed to deliver unmatched accuracy and efficiency. Featuring a full-frame 45MP sensor, the P1 captures high-resolution images with exceptional detail, reducing flight time while maximising coverage. Its global mechanical shutter enables shutter speeds as fast as 1/2000s, ensuring distortion-free imagery even in dynamic flight conditions.

The Smart Oblique Capture feature automates camera tilt angles, optimising data collection for 3D modeling. With an interchangeable lens system (24mm, 35mm, and 50mm options) and TimeSync 2.0 technology, the P1 ensures precise georeferencing down to 3 cm horizontal and 5 cm vertical accuracy.

- Seamlessly integrating with the DJI Matrice 300 RTK, the P1 is built for demanding surveying, mapping, and inspection missions. Enhance productivity, reduce costs, and capture reality like never before with the Zenmuse P1.
- 45MP full-frame sensor
- Global mechanical shutter (1/2000s)
- Smart Oblique Capture
- Interchangeable lenses (24mm, 35mm, 50mm)
- TimeSync 2.0 for centimeter-level accuracy
- Optimised for Matrice 300 RTK

Aerial software

DJI AGRAS T50

The Future of Agricultural Drone Technology

The DJI Agras T50 is a powerful, next-generation agricultural drone designed for high-efficiency precision spraying and spreading. Engineered for large-scale farming, it features a robust 50 kg payload capacity, enabling seamless operations with improved coverage and accuracy.

Equipped with an advanced dual atomization spraying system and an optimised spreading mechanism, the T50 ensures uniform application, reducing waste and maximising crop yields. Its intelligent obstacle avoidance, terrain-following radar, and RTK precision allow for safe, automated operations even in complex environments.

With an extended flight time, enhanced battery efficiency, and seamless integration with DJI's Smart Agriculture Cloud platform, the Agras T50 empowers farmers with real-time data and AI-driven insights for smarter, more effective farm management.

From pest control to fertilisation, the DJI Agras T50 is the ultimate solution for modern precision agriculture. Maximise productivity, minimise effort – take your farming to new heights with the Agras T50.

Agisoft Metashape

Agisoft Metashape is a stand-alone software product that performs photogrammetric processing of digital images and generates 3D spatial data to be used in GIS applications, cultural heritage documentation, and visual effects production as well as for indirect measurements of objects of various scales.

Wisely implemented digital photogrammetry technique enforced with computer vision methods results in smart automated processing system that, on the one hand, can be managed by a new-comer in the field of photogrammetry, yet, on the other hand, has a lot to offer to a specialist who can adjust the workflow to numerous specific tasks and different types of data. Throughout various case studies Metashape proves to produce quality and accurate results.

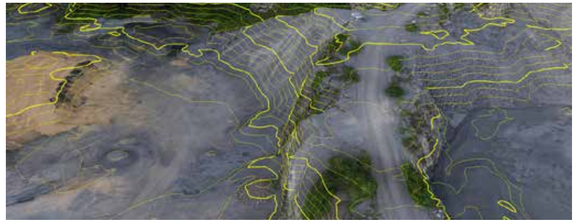
Virtual Surveyor

Virtual Surveyor's latest release, introduces advanced planimetric survey capabilities, enabling users to efficiently extract 2D features from drone orthophotos and integrate them into comprehensive 3D topographic models. This enhancement streamlines the surveying process, allowing for precise mapping of elements such as road markings, building footprints, and tree canopies.

The integrated Terrain Creator app offers a seamless end-to-end workflow by photogrammetrically processing drone imagery to generate survey-grade digital surface models (DSMs) and Orthomosaics. These datasets transition effortlessly into the Virtual Surveyor environment, where users can perform detailed analyses, including cut-and-fill calculations, volume assessments, and the creation of CAD models.

Additional performance improvements include a sixfold increase in the speed of converting drone LiDAR point clouds to DSMs, enhancing overall efficiency.

Experience a new level of efficiency and precision in drone surveying with Virtual Surveyor, designed to meet the evolving needs of professionals in construction, mining, and land development.



Elevate 4D

global mapper

Elevate4D

Next-Level Geospatial Analytics

Elevate 4D is a cutting-edge web-based geospatial analytics platform designed to revolutionise the way professionals interact with spatial data. Whether you're managing large-scale mapping projects, processing photogrammetry data, or analysing terrain models, Elevate 4D provides the tools to streamline workflows and enhance decision-making.

With support for 3D Cesium Maps, 2D mapping, and satellite overlays, Elevate 4D delivers unparalleled visualisation capabilities. Users can import their own data, process point clouds, ortho photos, and digital elevation models, and generate 3D tiled model outputs with precision. Advanced measurement tools, including profile analysis, area and volume calculations, and batch volume reporting, enable detailed spatial assessments.

The platform features a customisable interface, supporting dark/light modes, multi-language options, and coordinate system configurations. Powerful functionalities like split-screen viewing, terrain clipping, surface comparison, and terrain filtering enhance analytical efficiency. User management, white-labeling, and GCP import ensure a tailored experience for enterprises.

From project creation and data structuring to advanced geospatial analysis, Elevate 4D is the ultimate solution for professionals in surveying, construction, and environmental monitoring. Elevate your geospatial insights today!

Global Mapper

Advancing Geospatial Excellence

Experience the forefront of GIS technology with Global Mapper, the latest release from Blue Marble Geographics. Global Mapper introduces significant enhancements designed to streamline workflows and elevate data analysis capabilities.

- Insight and Learning Engine™ (Beta): Leverage deep learning-based image analysis tools for automatic identification of land cover classifications, building extractions, and vehicle detections, enhancing data interpretation efficiency.
- Solar Shadow Analysis: Accurately calculate shadows from loaded terrain and 3D features, facilitating precise solar exposure assessments crucial for planning and environmental studies.
- Model Key Point Generation: Automatically identify key points in point cloud models, streamlining data processing and analysis for more efficient project execution.

Global Mapper continues to support a wide array of data formats and offers improved ease-of-use features, ensuring it remains an indispensable tool for professionals in surveying, environmental consulting, and urban planning. Elevate your geospatial projects with Global Mapper – where innovation meets practicality.

UgCS

UgCS

Advanced Drone Mission Planning and Control

UgCS (Universal Ground Control Software) is a comprehensive drone mission planning and control platform designed for professionals in surveying, mapping, and inspection. UgCS introduces industry-first features that enhance flight planning precision and reliability.

- DSM Integration: Seamlessly integrate Digital Surface Models (DSMs) into your flight plans, enabling accurate terrain-following capabilities and ensuring optimal flight paths over complex terrains.
- Experimental Trajectory Smoothing: Utilise advanced trajectory smoothing algorithms to create smoother flight paths, reducing mechanical stress on the drone and enhancing data quality.
- Enhanced User Interface: Experience a modern, user-friendly interface that simplifies complex mission planning tasks, allowing for more efficient and intuitive flight planning.
- Comprehensive Sensor Support: Plan missions for a wide range of drones and sensors, including LiDAR and photogrammetry equipment, to meet diverse project requirements.

UgCS empowers drone operators to execute complex missions with confidence, ensuring precision, efficiency, and safety in every flight.

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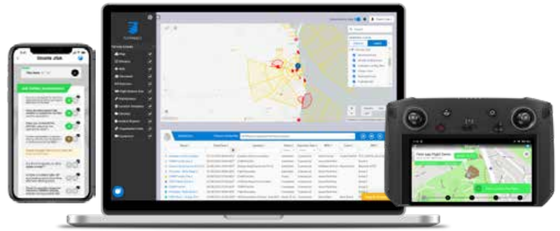
FLYFREELY

FlyFreely

No matter if you are the Chief Remote Pilot in the office, a Remote Pilot in the field or an IT professional, the FlyFreely Platform will support the various needs of your team.

- CASA verified drone safety App
- Plan and Execute missions offline, with the dedicated Field app available on both mobile devices and smart controllers
- Perform mission approvals from the Field app (mobile device)
- Fully Customisable Workflows to match the way your work
- Automation tools to streamline Mission records, Fleet and Pilots
- Comprehensive RPA Maintenance
- ISO27001 Certified



AVCRM

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AVCRM RPAS Manager

RPAS Manager from AVCRM is a centralised risk management and aviation compliance software to give users peace of mind and increase efficiency between field and office work.

AVCRM helps you identify fly and no-fly zones with integrated airspace maps. Work out suitable buffers between you and the job area and ensure you have the correct radio frequencies for the project. Have confidence you're complying with CASA regulations.

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