

## DRONE DATA PROCESSING & ANALYTICS

For Quarry, Mining and Construction

Gulf Positioning can provide you with the complete end-to-end solution that **will** significantly benefit your quarry project.

# REDBIRD

Redbird is a monitoring platform for Mining and Aggregate Operations. It provides the most advanced solution to capture, process and manage drone acquired data. With Drone Data Collection and Redbird Analytics managing your quarry becomes more efficient and profitable.

### DATA PROCESSING & MODELING SERVICES

#### Inventory Management

Quickly measure your stockpiles



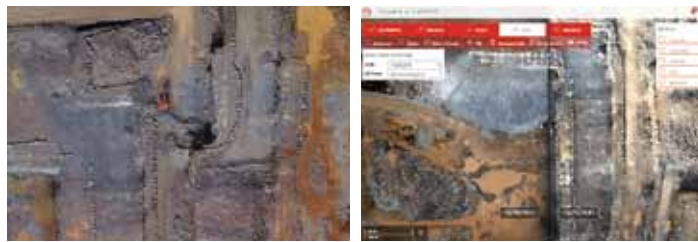
#### Haul Road Optimization

Measure grades, widths and curves radius



#### Monitor Progress Operations

Perform pre and post blast analysis



### STATIC LASER SCANNING SOLUTION

Gulf Positioning Systems use Trimble branded 3D laser scanners, making 3D laser scanning surveys fast and efficient. Our high definition 3D digital capture techniques gather a large amount of field information in a very short period of time. The process works by capturing a series of high definition scans on site that can be processed immediately for analysis.

### MOBILE SPATIAL MAPPING SOLUTION

Mobile mapping is the process of capturing geospatial data from a mobile platform. It bridges the gap between terrestrial and aerial laser scanning. Gulf Positioning Systems deploys the Trimble MX2 Mobile Mapping System to collect point cloud data and imagery of route corridors such as highway networks, railway systems and urban areas.

### AERIAL IMAGING SOLUTION

Gulf Positioning Systems provide a complete aerial surveys and aerial photography solution, using cutting-edge Unmanned Aerial Vehicle (UAV) technology. From the resulting data we can provide you with precise geo-referenced data, stunning high resolution photography, smooth video footage and a range of high quality 3D deliverables.

CONTACT YOUR SCANNING AND MOBILE MAPPING SOLUTIONS PROVIDER FOR MORE INFORMATION:

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#### Sister Companies:

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GULF POSITIONING SYSTEMS

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# Scanning & Mobile Mapping Services

INCREASE FIELD PRODUCTIVITY WITH THE LATEST SCANNING TECHNOLOGY



**Trimble**

**REDBIRD**

www.gulfpositioning.com

## Increase Your Effectiveness on the Jobsite

Turning drone data into actionable intelligence for mining and construction to monitor your assets and increase overall effectiveness on job sites.

Your Scanning and Mobile Mapping Solutions Provider

**GPS**  
GULF POSITIONING SYSTEMS



Trimble TX8

3D LASER SCANNER



Range	Accuracy	Measurement Rate
340m	2mm / 80m	1 million points per second

**High Performance for Demanding Applications**

The Trimble TX8 is ideal for capturing detailed data on existing conditions. Making high-speed measurements without compromising range or precision, the Trimble TX8 delivers high-density 3D point clouds.


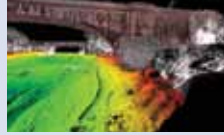

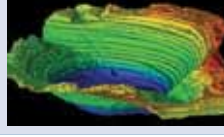

- APPLICATIONS
- 2D Modeling
  - 3D Animations
  - 3D Modeling
  - Aerial LiDAR
  - As-Built Surveys
  - BIM Conversion
  - CAD Conversion
  - Construction Monitoring
  - Deformation Analysis
  - Floor Flatness
  - GIS Integration
  - Land Surveying
  - Photogrammetry
  - Revit Modeling CAD
  - Scan to BIM
  - Terrestrial Laser Scanning

Trimble MX2

MOBILE MAPPING



Range	Accuracy	Measurement Rate
250m	up to 1cm	Dual laser head: 72000 points per second

- APPLICATIONS
- |            |   |   |
|------------|---|---|
| GIS        | <ul style="list-style-type: none"><li>Assets Management</li><li>Road Maintenance</li><li>Services</li><li>Utilities</li></ul>     |   |
| Water      | <ul style="list-style-type: none"><li>Combined Bathymetry</li><li>Waterways</li><li>Harbours</li><li>Logistics</li></ul>          |  |
| Logistic   | <ul style="list-style-type: none"><li>Transportation</li><li>Airports</li><li>Harbours</li><li>Industrial</li></ul>               |  |
| Mining     | <ul style="list-style-type: none"><li>Stockpiles</li><li>Volume Computations</li><li>Monitoring</li><li>Site Inspection</li></ul> |  |
| Earthworks | <ul style="list-style-type: none"><li>Stockpiles</li><li>Volume Computations</li><li>Roading</li><li>Site Inspections</li></ul>   |  |

**Versatile Mobile Mapping for Geospatial Surveys**

Trimble UX5 HP

AERIAL IMAGING



Capacity	Sensor Resolution	Range
up to 50 min flight time	36 megapixels	52km

- APPLICATIONS
- Boundary & topographic surveys
  - Survey grade mapping
  - Power line modeling
  - Shoreline mapping
  - Site & route planning
  - Progress monitoring / reporting
  - As-built surveys
  - Resource mapping
  - Disaster analyses
  - Volume determinations
  - Quarry inspections
  - Asset inspection

**High Precision for Survey Applications**

The Trimble UX5 HP is a professional aerial mapping system, designed to capture the highest image accuracy for survey applications. New UX5 High Precision includes an integrated Trimble GNSS receiver and a powerful new camera.

