OPMMS®
OPEN PIT MINE MONITORING SYSTEM
The OPMMS is a laser-measurement-based monitoring system, expressly designed for automatic and manual long-range profiling of open pits' slopes and surfaces and other mining applications.

The system currently operates with the Teledyne Optech POLARIS (optimized for the later).

The OPMMS continuously performs remote scanning at predefined permanent locations or at temporary modifiable locations.

The web platform automatically compares the acquired scans to a reference scan, taken as baseline, and detects displacements and deformations.

The laser scanner readings in the assigned ROI (regions of interest) are inspected against the base measurements and an automatic report is generated.

Manual on-the-fly analysis and output (statistics, inspection map, classification chart, displacement and displacement rate graphs over time interval) are possible inside the inspected area. Alarms and customizable notifications by email and text messages are included.

**OPMMS EQUIPMENT:**
- LONG RANGE LASER SCANNER*
- RUGGED NOTEBOOK or RUGGED CONTROL UNIT
- PROCESSING SOFTWARE PRE-INSTALLED ON THE CONTROLLING/COMPUTING DEVICE

*The laser scanner is not included, rental offer on request

**TECHNICAL SPECIFICATIONS**
- Monitoring Session Management
- Laser Scanner Control
- Laser Info and Status
- Scan Pose Registration: Automatic Fine Registration to improve scan alignment
- Scan Pose Recovery *(2)*
- Single Reference Base Scan with Mask Filtering Option | Additional Intermediate Reference Points
- Data Processing and Analysis Engine
- Configurable Thresholds and Alarms *(3)*
- Customizable Scheduler Function
- Automatic and Manual On-the-Fly Outputs (Statistics, Inspection Map, Classification Chart, Displacement and Displacement Rate Graphs over Time Interval)
- Platform Rollover Control Functions
- Post Processing Option: Delayed Analysis of Session Data
- Results Exporting Functions

*(1) Using registration tools available in Reconstructor®
*(2) Function on demand and subject to the availability of a text messaging local service provider. Customization development, subscription fee and traffic costs not included.

**OVERVIEW**

**WORKFLOW**

**MAIN INDUSTRIES**

<table>
<thead>
<tr>
<th>TRACK MINE</th>
<th>WORKER SECURITY</th>
<th>MEASURE PRODUCTION</th>
<th>LAND SLIDE</th>
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<tbody>
<tr>
<td>ICE SLOPE</td>
<td>SAFETY HAZARD</td>
<td>MINING</td>
<td>LONG-TERM MEASUREMENT</td>
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</tbody>
</table>

**1. LASER SCANNER SETUP**

**2. SCHEDULED AUTOMATIC SCANS**

**3. GEOMETRICAL CHANGES 3D MONITORING**

**4. ALERT NOTIFICATIONS**
**CONFIGURATIONS**

**CHOICE 1**

**OPMMS-RUGGED NOTEBOOK**

**ULTRA RUGGED MOBILE WORKSTATION**

- Windows 10 Pro 64 bit
- Intel® Core™ i7
- NVIDIA GeForce Dedicated Graphic
- 16 GB RAM
- 1TB Hard Disk
- 15” Sunlight Readable Full HD Display
- DVD Super Multi
- Low Temp -20°C
- MIL-STD-469F Ready
- IP65

**CHOICE 2**

**OPMMS-RUGGED CONTROL UNIT**

**FULL POWERING, CONTROL AND PROCESSING UNIT**

**Power Management / Power Unit:**
- Power Supply 100-240 VAC/24 VDC
- Uninterruptible Power Supply with UPS CAP Energy storage
- Laser Scanner Power Switch

**Computing Unit (Removable):**
- Ultra Rugged Mobile Workstation (Intel® Core™ i7, 16GB RAM, 1TB HD, 15” FHD Display)

**Device Control:**
- Ethernet Interface
- Field Alarm Devices Management
- Temperature Control with Integrated Fan System

**Protective Enclosure:**
- High-strength, Rugged Protective Case, Resistant to corrosion and impact damage, Watertight, Easy to transport.