OPSIS

www.opsis-scan.com

THE SMART SOLUTION FOR
LASER SCANNING MONITORING

EVERY POINT MATTERS

Encardio Moniterra Group unveils a new era of sustainable structural deformation monitoring.
With over 50 years of experience assimilated in one unique application for deformation monitoring using laser scanning data, OPSIS is the brilliant software that is going to redefine monitoring philosophy - a true game changer!

Reduce cost by saving time and resources, while lowering risks and without compromising safety.

The OPSIS analysis software optimizes the exploitation of laser scanner data for monitoring purposes of deformations and provides you with an analysis directly from your 3D data.
With OPSIS you can have complete deformation overview maps, time-displacement graphs and animated images in a snap!

Leave no spot unattended! Simply zoom in at the potentially problematic area and evaluate at a glance!

BENEFITS

SAVE ON HUMAN RESOURCES

- Full coverage of the structure's surface - monitor in between other installed sensors
- Measure without jeopardizing safety of personnel to install and maintain prisms at risky locations - at high rise structures, dams, tunnels, landslides, slopes, caves, monuments, etc.
- Measure contactless / eliminate possibilities of mishaps such as traffic and construction site accidents
- Evaluate at a glance. Every second counts in monitoring!

SAVE ON TIME

- No time-consuming target installation needed. Immediate baseline readings
- Faster method than total station and optical 3D measurements
- Get point clouds comparison results in a few seconds

REDUCE COST

- Focus only at the problematic areas
- Trace the problem early in advance, take remedial action immediately thus saving on costly repair work later
- Avoid accessibility or installation permits
- No conflict with the construction progress
- Optimize monitoring documentation

BE EFFICIENT

Due to its fast speed, scanning ensures evenly distributed environmental effects – wind speed, solar radiation, temperature, refraction, etc. over the monitoring duration.

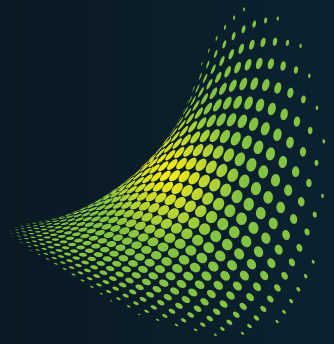
- Overview of the total map(s) of deformations
- Understanding the history with long-term time-displacement graphs
- Interpret by correlating data with other parameters - wind speed, water table, total pressure, temperature, etc.

KEY FEATURES

- Limitless point cloud comparison
- Full surface deformation maps
- Time-displacement graphs
- Time-lapse animation of deformation maps
- Customization of projection mathematical template and results' grid
- Multiple templates within the same project
- Scalable graphs
- Custom color scales
- Custom alert, alarm and action level per template
- Imports .las, .pts, .e57, .ply, .xyz files
- Export in pdf, xml and csv format
- OEM noise filtering
- Automatic elimination of points away from the template's surface
- Just 2 clicks and 2 seconds from importing a point cloud to the viewing of the report

*OPSIS is subject to the limitations and accuracies of the equipment, methodologies and site conditions during the measurements.

INITIAL SET UP



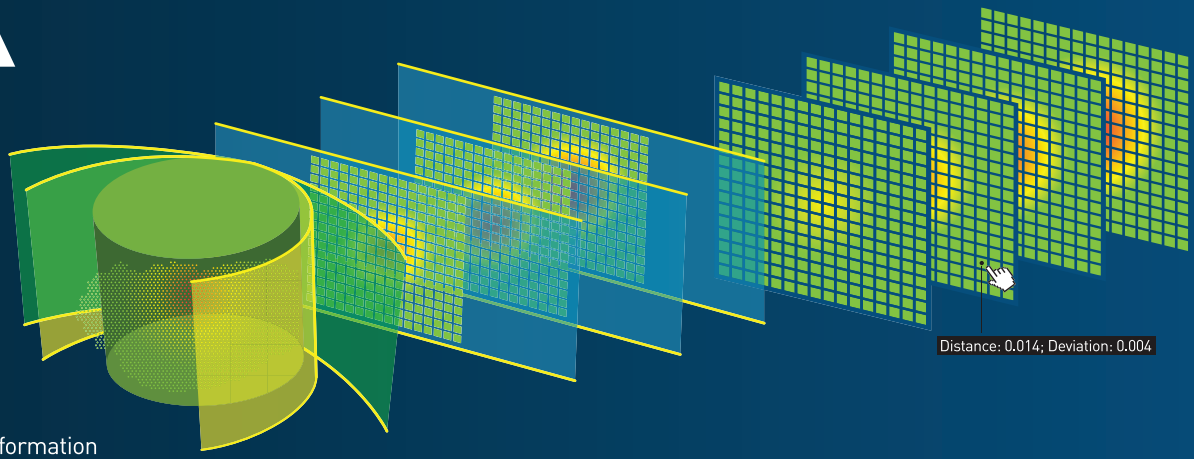
Point Cloud

INPUT

- .LAS
- .PTS
- .e57
- .PLY
- .XYZ

1. FILTERING
2. BEST FIT SURFACE
3. GRID
4. TEMPLATE
5. PROJECTION

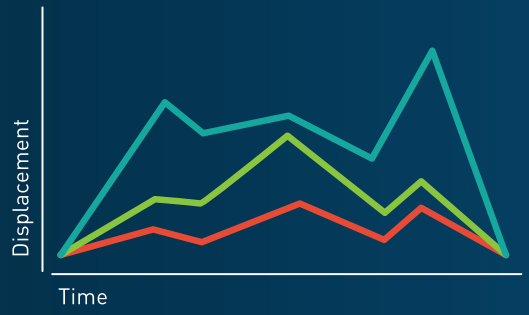
Mathematical transformation and comparison template



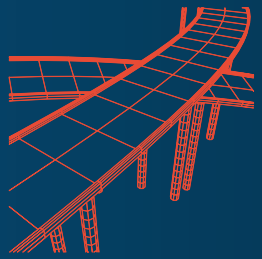
Measurement analysis

DAILY WORK

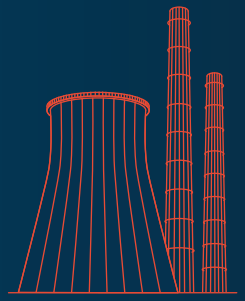
- CREATION OF PROJECTION MAPS AND FILES
- SELECTION OF REFERENCE PROJECTION
- CREATION OF MEASUREMENT MAPS & FILES
- DEVIATION CHARTS



Deviation charts

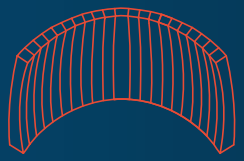


ROAD PAVEMENTS |
AIRPORT RUNWAYS

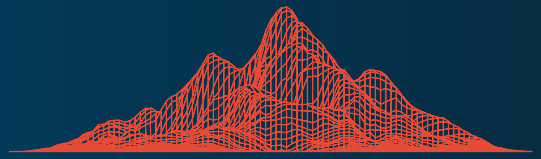


POWER PLANTS |
HIGH RISE CHIMNEYS

HIGH RISE BUILDINGS

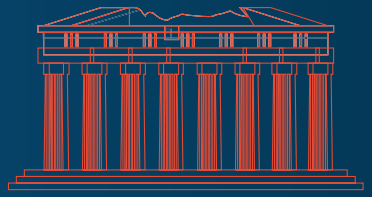


HYDROPOWER STATIONS
| DAMS

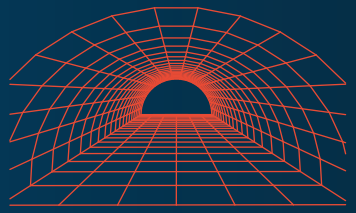


OPEN PITS | SLOPES | LANDSLIDES

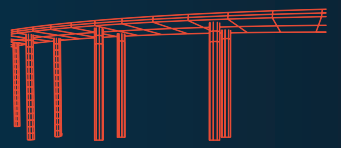
REFINERIES | OIL TANKS



MONUMENTS



TUNNELS | MINES



BRIDGES | VIADUCTS

OPSIS

MEASURE FAST • COMPLETE COVERAGE
ASSESS AT A GLANCE • GO SAFE • REDUCE COST

All specifications are subject to change without prior notice

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