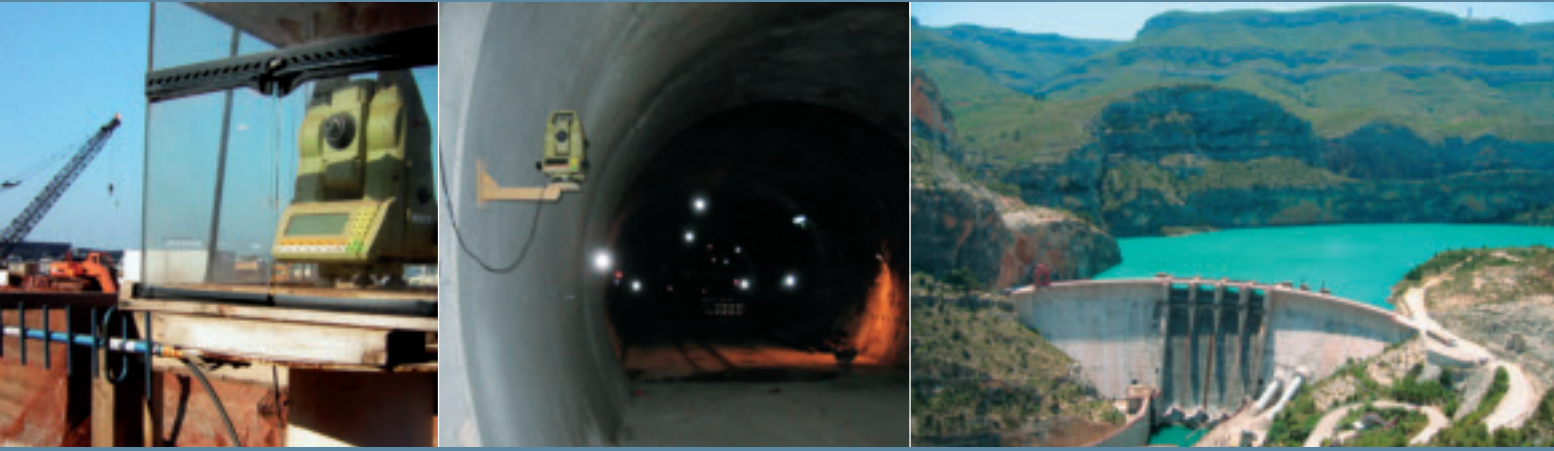


Leica Geosystems has nearly 200 years of experience in precise measurement and 15 years experience in automatic deformation monitoring software.

Why is GeoMoS the best choice for your monitoring project?

- GeoMoS helps to reduce risk.
- GeoMoS provides 24 hours, 7 days a week monitoring of critical man-made structures and natural phenomenon.
- GeoMoS is flexible and scalable to match your needs.
- GeoMoS is simple to install and easy to use.
- GeoMoS is an integrated solution that supports total station, GNSS, levels, dataloggers and geotechnical sensors for an overall understanding of structural movements.
- GeoMoS is based on an open architecture with a professional SQL database.



Leica GeoMoS

Are you interested in movements ?

Automatic Deformation Monitoring

Whether you monitor the movement of a volcanic slope, the structure of a long bridge or track the settlement of a dam; whether you measure, analyse and manage the structures of natural or man-made objects: the monitoring systems by Leica Geosystems provide you with the right solution for every application.

Our solutions provide reliable, precise data acquisition, advanced processing, sophisticated analysis and secure data transmission. Using standard interfaces, open architectures and scalable platforms, the solutions are customizable to meet individual requirements – for permanent and temporary installations, for single sites and monitoring networks.

When it has to be right.

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Total Quality Management – our commitment to total customer satisfaction.

Ask your local Leica Geosystems dealer for more information about our TQM program.

The iPhone depicted in this brochure is a product and a trademark of Apple Inc.



Monitoring Solutions:
Deformation Monitoring



Software:
Leica GNSS Spider
Leica GNSS QC



Total Stations:
Leica TCA1800/2003
Leica TCA1201M
Leica TPS1200 Series



GPS/GNSS:
Leica GMX901
Leica GMX902 GG
Leica GRX1200 Series
Leica GPS1200 Series

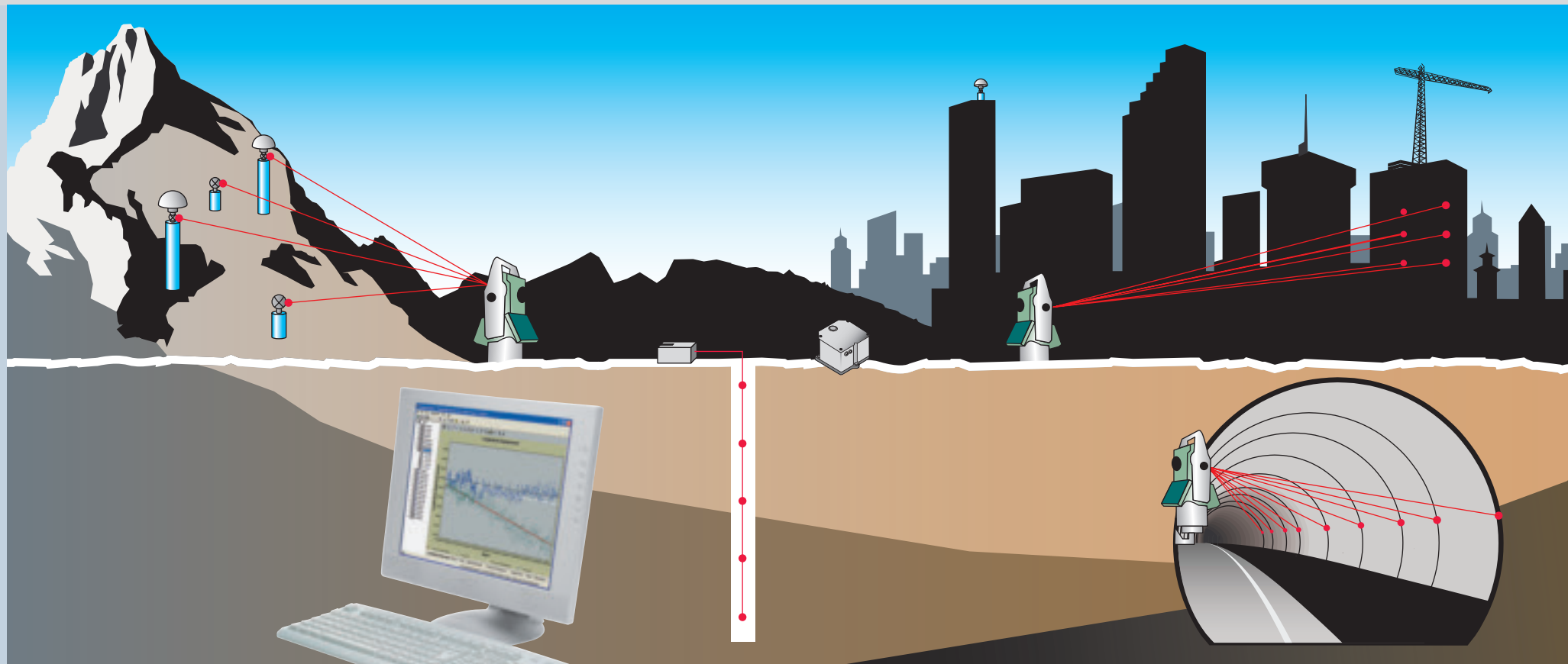


Other:
Leica Nivel210/220
Leica GPR112
Monitoring Prism



Leica GeoMoS Automatic Monitoring System

Numerous accidents and disasters in the past have shown the risks that are associated with large construction projects (e.g. dams, tunnels, bridges, high-rise buildings, etc.) or natural events (e.g. volcanoes, landslide and settlement areas). The monitoring of man made structures and dangerous areas is becoming increasingly important. Monitoring involves periodically and automatically measuring points in or around an active area to determine the deformation. It is often necessary to immediately analyze the measured data and to inform the responsible people when movements exceed set tolerances. Monitoring and deformation analysis present some of the most sophisticated challenges in the surveying industry today because they require the highest accuracy, maximum reliability, automatic measurements and advanced computation and analysis tools.



Benefit from service and support

Leica Geosystems' customers benefit from service and support that spans time zones and geography. Our Active Customer Care program has packages to suit your needs, whether you use our simplest distance measuring device or

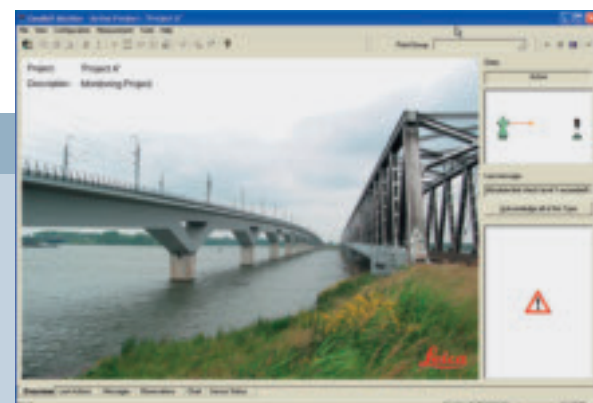
the most sophisticated integrated solution. Active Customer Care is a true partnership – it's our commitment to continue to provide the level of support and collaboration you have come to expect when you put your trust in Leica Geosystems.



Leica Monitoring Software Solutions

Leica GeoMoS is an open, scalable and customizable software suitable for a wide range of monitoring applications. The Leica GeoMoS software is comprised of two main applications called Monitor and Analyzer. Monitor

is the online application responsible for the sensor control, collection of data, computation and event management. Analyzer is the offline application responsible for the analysis, visualization and post-processing of the data.



GeoMoS Monitor

- Central monitoring unit for data acquisition and multiple sensor control
- Engine for third party software with open SQL database
- Real-time graphics displaying system status



GeoMoS Analyzer

- Graphical and numerical analysis
- Site map with status information
- Data import and export
- Quality improvements with data editing and post processing

Multi-Purpose

- Construction sites
- Roads
- Dams
- Tunnels
- Bridges and Viaducts
- High-rise and historical buildings
- Foundations
- Mines
- Landslide and Volcanoes Slopes
- Settlement areas
- Earthquake areas

Multi-Sensor

Each monitoring project has specific measurement and accuracy requirements. The Leica GeoMoS software provides a highly flexible monitoring system that is able to combine geodetic, geotechnical and meteorological sensors to match the needs of your monitoring project.

Scalable & Flexible

The Leica GeoMoS software is highly customizable allowing you to purchase only the functionality you require. The sensor license concept means that the software scales with the number and type of sensors you have connected. Additional functionality can easily be added later should your needs change.

SQL Database & Backup

GeoMoS Monitor stores all measurements and results in an open SQL database. The data can be accessed both locally and remotely using either GeoMoS Analyzer or third party software. The SQL database is a scalable, secure and robust data storage system that supports multi-user access and automatic data backup.

Measurement Scheduling

GeoMoS Monitor operates autonomously providing sophisticated multi-sensor measurement scheduling. A wide range of options are available for system optimization such as outlier detection, data validation, filtering and re-measurement to ensure accurate and reliable data acquisition.

Analysis

GeoMoS Analyzer can display graphically and numerically all measurements and results. Combine the data from multiple points or sensors in a single graph to check for correlations. The Site Map shows at a glance the status of your monitoring project using traffic light symbols overlaid on a photo or geo-referenced map. GeoMoS Analyzer can also import and export data and be used for data editing and post processing.

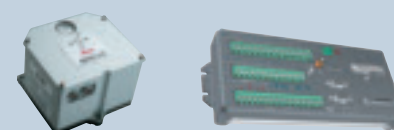
Geodetic Sensors

Leica Geosystems range of total stations, GNSS receivers and digital levels can be connected to Leica GeoMoS. Leica total stations are specially designed for the demanding requirements of continuous monitoring. Leica GeoMoS can be combined with Leica GNSS Spider, for advanced GNSS monitoring using the latest GPS and GLONASS technology.



Geotechnical Sensors

Leica GeoMoS can interface with dataloggers that support most commercially available geotechnical sensors to measure environmental effects and conditions. In addition direct connection to selected meteorological and geotechnical sensors is supported. Supplementing the geodetic measurements with geotechnical data can help to understand the reasons for any detected deformations.



Communication

A wide-range of communication technologies are supported for sensor control and data acquisition including cable, bus system, radio, LAN, WLAN and GSM/GPRS, UMTS and WiMax. An email, SMS, command line or external device can inform you when defined test criteria fail or various events occur.



Event Messaging and Limits

GeoMoS Monitor computes deformations and limit checks in real time. Powerful event management and messaging capabilities can be used to notify responsible staff about important system events, e.g. limit exceeded, power failure, burglary, communication to sensor lost etc.

Computation

Coordinates and displacements are computed in your local geodetic system and the output of one or more sensors can be modelled with constants, mathematical functions and/or logic operators as a so-called 'virtual sensor'. Measurements to reference points and/or meteorological data can be used to correct for atmospheric errors and changes in the position and orientation of the total station. Combine terrestrial and satellite positioning systems to overcome problems with unstable control points.

