Topcon Partnerships

Topcon (Netherlands) has formed a partnership with the monitoring software provider Dr Bertges from Germany and the precise inclination sensor manufacturer Wyler from Switzerland. This cooperation brings together the technology and expertise from all three companies to offer the best, most versatile monitoring system available. It is the first monitoring system utilising Topcon's innovative Imaging technology.

The system can be used in all types of monitoring projects, earth/structure stability, construction monitoring and even the long term monitoring of dams, bridges, railways or rock faces

The DC3 system is at the basis of this solution. Developed by Dr. Bertges it offers a fully automated surveying system for terrain or structure movements. It offers measuring, analysis and if needed alarming. The system focuses on monitoring buildings, potentially unstable slopes and earth movements using Topcon's precise positioning technology and Wyler's sensors. It detects and models subsidence, tilt and valley convergence or divergence processes. Data transmission is done by radio-telemetry and GSM.

The communications and data acquisition system allows the link of DC3 software to different kinds of sensors and communication channels. Different kinds of sensors can be combined with each other: for instance a Total Station and GNSS sensors, inclination measurers, meteo and geosensors and even a webcam. DC3 consists of at least one central data processing unit and several external sensor control units. The acquisition of the sensor data by GNSS and Total-Stations may take place in a real-time, near-online and in offline mode. The data-exchange with the DC3 Software can also run online as well as offline.

Besides Topcon's Imaging Station; the Swiss company Wyler will offer its Zerotronic line of inclination sensors. The Zerotronic family allows very accurate long term monitoring of civil engineering objects like dams, buildings, tunnels, railroads or bridges. The two-dimensional inclination measuring sensors Zeromatic 2/1 and 2/2 are perfectly suitable for the monitoring of the smallest changes of the angle of inclination during longer periods. The digital sensors Zerotronic are characterised by the fact that measured values are transferred loss-free over large distances thanks to the digital bus system.