GeoCloud Automation

Wireless Data Acquisition

Wireless Systems

Wireless Logger Networks

Web-Based Data Management

Structural · Dust · Geotechnical · GeoCloud Server · Data Integration · Vibration · Geomatic · Photo/Video
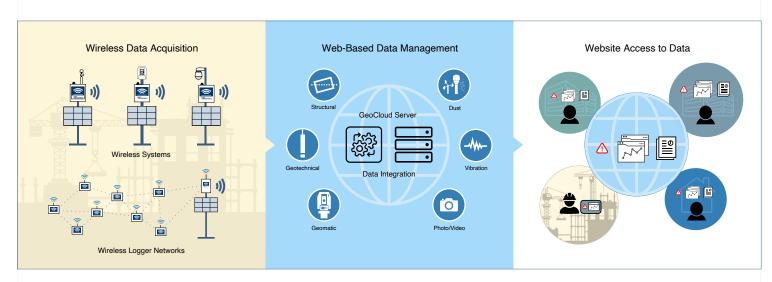
Website Access to Data

Wireless Data Acquisition

Wireless systems, loggers, and nodes transmit measurements from the project site to the internet. Powered by battery and communicating by radio, they can be installed anywhere, eliminating long runs of cable and avoiding problems with signal degradation and voltage transients.

Wireless Systems perform complex measurement & control functions to operate automated total stations, vibration monitors, dust monitors, construction cameras, and varied arrays of instruments. Supplied in weatherproof enclosures and equipped with high-capacity batteries, solar panels, and stands or towers, wireless systems transmit measurements to the internet via cellular connections.

Wireless Loggers and interfaces perform simpler measurement functions, typically dedicated to a single type of sensor. Supplied in compact, weatherproof enclosures, they transmit measurements to the internet via cellular gateways.

Web-Based Data Management

Central Repository for Data: The GeoCloud server stores measurements transmitted from the project site into a secure, dedicated project database.

Data Integration: The GeoCloud server can import, process, and store readings from most sensors and systems, eliminating data silos.

Consistent Calculations: The GeoCloud server processes measurements according to instructions stored with the databases, providing consistency and traceability.

Consistent Presentations: The GeoCloud server generates views, plots, and reports that are preconfigured to ensure consistent sensor selections, scales, and labels.

Human Monitored: GEO-Instruments project managers and technicians monitor project dashboards, checking that loggers and nodes are operational and that the processed measurements are within alarm thresholds.

Website Access to Data

GeoCloud project websites provide access to data and alerts wherever there is an internet connection - project sites, offices, homes, and on the road. GeoCloud websites work with ordinary browsers on smartphones, tablets, and desktops.

Continuously Updated: Project websites are updated and available 24 hours a day. Everyone sees the most recent data.

Secure Access: Project websites are hosted on secure servers that are backed up daily. Authorized users have password-protected logins and controlled access to advanced features.

Graphs, Reports, and Alerts: Project websites support site-wide views, trend plots, profile plots, contour plots and more. PDF reports are generated automatically on regular schedules. Alerts are posted on project websites and sent by email or text to registered users. Real-time, on-site alerts are also available.