pizzi
instruments

Sentinel
2.0

Sentinel 2.0

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Sentinel 2.0 – For monitoring systems

Strumento	Descrizione	Ubicazione	Valore Elettrico	UM	Valore Ingegneristico	UM	Errore	Sogl
...voir Water Level S...	P011C005	Dam Crest & Face - Elevation 781,56 m a.s...	14,954	mA	864,32	m.a...	●	●
...Water Level S...	P011C005	Dam Crest & Face - Elevation 781,56 m a.s...	14,905	mA	863,95	m.a...	●	●
...r Level S...	P011C005	Dam Crest & Face - Elevation 781,56 m a.s...	14,904	mA	863,94	m.a...	●	●
...el S...	P011C004	Dam Crest & Face - Elevation 756,78 m a.s...	12,405	mA	863,94	m.a...	●	●
	P011C005	Dam Crest & Face - Elevation 781,56 m a.s...	14,882	mA	863,77	m.a...	●	●
...001C000		Drainage Gallery 700 m a.s.l. - Pendulum S...	13,55	V	13,55	V	●	●
...001		Drainage Gallery 660 m a.s.l.	0,5957	Khz2	-0,94	mm	●	●

Description

Sentinel is our software for the management of structural and geotechnical monitoring. Sentinel is a proprietary software and allows data to be imported from Pizzi Instruments dataloggers, such as CUM3000 or DEC3000, and from other dataloggers present on the national and international market.

Sentinel enables the management of data directly and locally on a PC or via the internet if installed on a cloud server, permitting remote assistance by operators, designers and technicians.

Sentinel is a management, analysis and data storage programme. In addition to importing data from many automated systems, it allows the manual insertion of single or multiple data files, custom configurations, the creation of dedicated user accounts with selective authorisation for operations and the representation of data in numerical, tabular and graphical form.

On purchase license of the Sentinel package, the user has complete control of the program. It is possible to create projects, edit, add and remove sensors and vary system configurations at any time, simply by connecting to the internet.

Each work screen can include photos, sections and customized maps from which it is possible to access the various measuring sensors.

By selecting a sensor, its measurement history and relative states of alarm can be viewed. Navigation of numerical tables is facilitated by multiple selection filters. By selecting one or more measuring sensors, graphs can be created for entire work periods or periods of time defined by the user. Measurements can be selected directly on the graphs; average, maximum, minimum, derivative values within a specific interval of time, variance, standard deviation, are calculated automatically.

As monitoring software, Sentinel allows the setting of warning thresholds and alarms for each sensor and configuration for sending e-mail alerts to authorized operators.

Data collected in automatic or programmed mode is organized into a powerful database which allows easy processing, also after the data has been acquired.

Data is returned in numeric tables for individual sensors, for groups or for the overall system and can be organized according to date/time, instrument name, type or location, etc.

The graphics section also allows rapid data analysis in visual form.

Groups of 1 to 6 sensors in the same family can be recalled and the data combined into one graph. Where instruments belong to two different families, for example piezometers and water level meters, data for the same time period is shown in 2 separate graphs, allowing easy comparison.

The program also allows the creation and setting of virtual channels, created by combining several instruments.

The ability to insert images correlated to the positioning of instruments and the realiusation of a synoptic panel, permits the creation of operating configurations which are quick and easy to manage, making the monitoring system simple and effective

Applications

The Sentinel software has been created for the need of our clients to manage geotechnical and structural monitoring systems of varying complexity, for a number of sensors ranging from a few to hundreds.

The software allows the easy management of the monitoring of dams, bridges, viaducts, tunnels, buildings, historical works, embankments and any other large or small works.

Due to its versatility, it can be installed locally on a PC and connected to the acquisition units by serial cable or via internet using a modem. Alternatively, it can be installed on the server or via cloud space and communication with the data acquisition units takes place over the internet via modem.

Features and benefits

- **Easy to use**
- **Compatible with all versions of Windows still maintained**
- **Installation locally on PC, via servers or cloud space**
- **Possibility of custom configurations**
- **Management of users with password**
- **Multi-plant management**
- **Ability to perform real-time measurement**
- **Automatic data download for single sensors, groups or entire data logger**
- **Insertion of maps, sections and custom designs**
- **Backup of data**
- **Identification of critical measures and changes to acquisition frequency**
- **Setting of warning thresholds and alarms and sending of email alerts**
- **Exporting of .csv files**
- **Importing of files**
- **Storage of documents in a dedicated folder**
- **Dual language: Italian and English**
- **Tabular data**
- **Graphic visualization of data**
- **Data conversion to graphs**
- **System monitoring functions**
- **Remote control**

Functions

In order to make navigation simple and intuitive for users, the Sentinel software is divided into three main functions:

- DATABASE: allows management of the database functions, creation of clients and installations data, synoptic configuration and custom maps, configuration of data loggers to be acquired, measurement channels, alarms and backup of the data.

- MONITORING: allows numerical and graphical display of data, and execution of mathematical functions, data acquisition by automatic download or real-time measurement, importing of single and mutiple manual measurements, monitoring of data acquisition.

- CUMPROG: allows configuration of Pizzi Instruments automatic acquisition unit CUM3000. It allows the user to remotely configure and make programming changes to the acquisition units on site.

Minimum installation requirements

Operating system	Windows Vista, Server, 7, 8, 10, 12
Processor	1.9 GHz
Communication port	Ethernet and USB
RAM	2 GB
Minimum space required	2 GB

Technical assistance

If you have any requests or questions about our instruments or if you have special needs that require different solutions from the standard, please contact us. Our team will provide all the necessary information and will be very happy to work with you to study, develop and customize instruments and solutions suitable for your specific needs.

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