

AI

# AIDA

ARTIFICIAL INTELLIGENCE DATA ANALYSIS

## PLANS

### Base

- Dedicated FTP folders
- Data collector
- Instruments
- Chart Manager
- Dashboards
- Basic User Administrator permissions

### Advanced

- Dedicated FTP folders
- Data collector
- Instruments
- Chart Manager
- Preset chart
- Dashboards
- Maps
- Document archive
- System Monitor
- Advanced User Administrator permissions

## ADMIN USER PERMISSION

### Base

- Create Dashboards
- Public Dashboards
- Create Tickets
- View Tickets
- Set default
- Manage Permit Levels

### Advanced

- Set Offsets
- Change the constants values
- Save spreadsheets
- Forms
- Save Ref Offsets
- Change alarm thresholds
- Manage alarms
- Set reference date of inclinometers
- Fill in job journal
- Import data

## EXTRA OPTIONS

- **TUNNELS** section.
- Mono-bi-triaxial **VIBROMETRY** section (accelerometers, vibrometers).
- **INCLINOMETERS** section.
- Statistical/mathematical functions for data processing/analysis (offset, Noise, Trend Line, Moving Average, Smoothing and Co-variate Adjustment).
- Synoptic tables, with the display of TBMS parameters and related rings.
- Management of external systems (sirens, traffic lights, cameras for traffic control, etc.).
- Instrumentation georeferencing.
- Visualization of images and videos from video surveillance systems.
- Integration with CNR algorithm for cumulative/period calculation in the analysis of rainfall data

Many more available on request.



Via delle Rose, 7/A -24040 Lallio (BG) – Italy  
tel.: +39 035/203471  
[info@fieldsrl.it](mailto:info@fieldsrl.it) - [www.fieldsrl.it](http://www.fieldsrl.it)



## AIDA IoT Platform WMS4.0



DAMS



STRUCTURES



LANDSLIDES



RAIL



BRIDGES



ENVIRONMENTAL



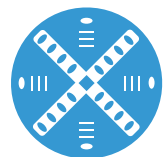
SMART CITIES



INDUSTRIAL



TUNNELS



TBMS

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## WHAT IS AIDA

AIDA is a **software platform** for the management and visualization of data originating from monitoring systems. Through its **WEB pages** the data are available to the Customer at any time, in graphical and tabular format.

AIDA is the evolution of our WMS platform, in operation for more than 15 years. It is based on a **SQL Server database**, the most popular query language among those used for interacting with the main databases, especially relational ones.

## HOW DOES IT WORK

The sensor measurements recorded by the data loggers on site are sent to GPRS-F / O-LAN-Radio-Satellite technology with **dedicated FTP folders** divided by project.

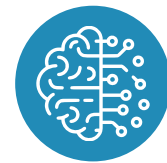
The same applies to **manual measurements**, where manual values are inserted manually into the dedicated FTP folders.

The files are read and processed according to the standards agreed with the customer and inserted into the database.

Data are processed and undergo a **first automatic validation** based on parameters set during configuration; then they are divided and sorted into groups according with the customer needs and the consultation areas are finally created.

It is possible to set up to **four types of alarm thresholds** and configure the way to **send alarm messages** via **SMS** and **e-mail** to authorized users when the measurement of an instrument exceeds the thresholds.

## INNOVATIVE FEATURES



### Artificial Intelligence

By means of specific algorithms, in particular by means of **Machine Learning**, the system is able through the information collected, to learn automatically and formulate hypotheses in full autonomy. In addition, the **A.I.** allows massive analysis of large volumes of data.



### Digital twin

Section dedicated to the virtual reproduction of a physical entity or system. This digital component can represent, in real time, the state, the working condition or location of objects or physical system through data collected by sensors.

## FLEXIBLE CUSTOMER SOLUTIONS

### Hosting solution

Data are sent to servers owned by FIELD and each user accesses their data via WEB browser. Hardware and **AIDA** maintenance are under FIELD's responsibility.

### In house solution

**AIDA** is installed on the Client server and data will flow into the database inside it. The same will always be available via WEB browser. FIELD takes care of the maintenance of **AIDA**, while the Customer of the hardware maintenance.



The system is fully automatic and allows you to view and obtain updated and visible data 24h/365 days a year

## MAIN FEATURES



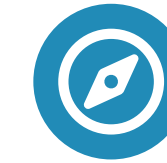
### Charts

Viewing of preset charts, with the possibility to save them and download the data.



### Chart Manager

Section for creating customized charts, with possibility to save them and download data.



### Inclometers

Section for charting the inclinometer measurements in manual or automatic mode.



### Tunnels

Section for analysis of the convergence measures and deformation of the tunnel lining.



### Vibrometry

For viewing and processing of vibrometric values (according to UNI 9916:2014) and accelerometric measurements.



### System Monitor

Section for consulting and managing the alarms generated



### Maps

Section for interactive synoptic maps with visualization of the monitoring system instrumental network.



### Report

Tool for the automatic documents creation in which charts and tables are included.



### Dashboard

A user-customizable dashboard to get a personal project layout.



### Archive

Section for sharing documents such as images, manuals, PDFs, calibration sheets and site journals.