## **DATALIFE**

DATALIFE is the heart of the MHAS (Multi HAzard System) platform; it is an open supervision and control system, fully configurable and designed to manage its network of stations in complete autonomy.

## APPLICATIONS AND FUNCTIONS

DATALIFE is the platform that can completely describe the monitoring network, identifying in it the stations and the measuring instruments, the measured values, the engineering units of measurement assigned to the values, in line with the requirements of the W.M.O.

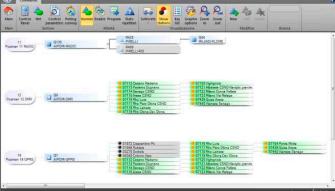
The software platform performs the acquisition and storage of data of one or more detection networks in remote-measurement. These data will constitute the working database of the whole system; it also checks the operation of the stations and performs their complete configuration. All the information necessary for the network management resides in the software: on-site devices and alarms configuration, settings, master data, data collected by the stations. This platform is also used to check the progress of the processes, to regulate the flow of information to and from the control unit, to configure the on-site network depending on the specific needs and to configure the UHF radio network, to carry out tests on it, to exchange data with other organizations, to perform selective calls and to request data from other control units.

DATALIFE enables users to individually monitor the status of each site and collect data 24 hours on 24 and 7 days out of 7 in a single control unit, which ensures the reception of reliable observations and the use of high quality data, actively monitoring the status of the sites of the network and constantly performing real-time quality control and diagnostics.

The software in question supports all transmission systems: radio (UHF) cellular network (UMTS/GPRS/GSM) and satellite network (meteorological or commercial), it also manages communications and interactions between the various components of the monitoring system.

The data from any monitoring network may transit in Datalife through standard file formats such as ASCII files, excel files (.csv), and proprietary CAE compressed formats widely documented in the supply.





Datalife has a geodatabase that can store geographic information, appropriately geo-referenced, that can

be easily displayed in any GIS system. The spatial data that it can manage are vector data (points, lines, polygons), that are used to fully describe the entities related to monitoring (monitoring stations, rivers, watersheds, alert zones) or more general geographic information (countries, regions, provinces, municipalities, ...).



All this information can be extracted and reused directly from external GIS applications such as QGis, GeoServer, etc. or they can be used internally by the DataLife applications to perform appropriate geographic queries.

The software platform developed by CAE provides constant supervision and control of the monitoring system performance across the network. The information provided is always understandable, timely and accurate, therefore the optimization of the daily work processes is ensured. Alarms, reports and information notifications always take place in real-time and automatically to ensure quality and efficiency; these are key features during the decision-making procedures in critical situations and public safety.

## DATALIFE:

- it is modular: the addition of new components is simple and economical;
- it is **robust**: redundancy and robustness of calculation processes have been put first in its design;
- it is **simple to manage, to maintain and to install** thanks to the instructions given by the program;
- it offers the possibility to **remotely manage the peripheral station** exactly as from the panel of the station itself;
- it allows the user to **manage stored data** in a totally transparent and free way to increase its integration with systems already in possession of the users;
- it allows the user to independently manage master data of the system settings, or to create and insert
  a new station and/or sensor in the system, change the contents of the currently existing master data,
  create and fill new data fields that can meet the customization needs that may be required for its
  Administration;
- it provides new standard web services to access the system, that will lead to the use of open interfaces
  for access to the systems, able to ensure interoperability and application cooperation between
  different IT systems.

