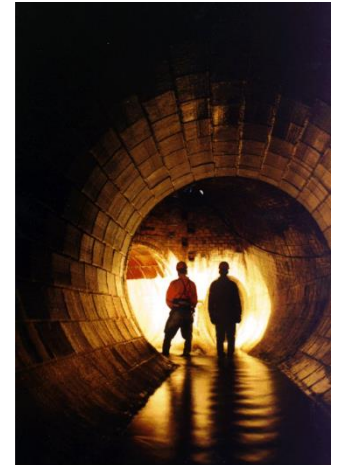


GANDALF

Time series data processing, management and reporting



Applications

GANDALF software is developed for processing, control and presentation of time series data.

GANDALF provides user-friendly handling of large data sets in environmental models.

GANDALF makes it possible to analyse data and prepare graphical presentations of the monitoring results.

GANDALF can be used by:

- Companies providing monitoring campaigns
- Consultants and experts
- Operators of urban infrastructure
- Industrial factories and plants
- Universities, hydraulic, hydrological and meteorological institutes
- General time series users

Applications:

- Urban drainage and drinking water systems
- WWTPs, WTPs and industrial plants
- Environmental studies and projects
- Plans of urban infrastructure

Features

GANDALF supports various data formats of different monitoring devices such as water level monitors, flow meters, rain gauges, etc.

Both raw and processed data can be stored in different formats. All time series can be browsed and edited in text and/or in graphical form.

A wide range of computational tools is implemented. Scatter graphs and statistics are integrated.

Application of data 'flags' support advance data analyses and operations.

Graphs combining particular time series can be prepared for presentations.

All tools and/or user-defined links can be organised as separate projects equivalent to monitoring campaigns.

The horizontal plan provides easy spatial orientation of project data sets.

A reporting tool secures an efficient data presentation.

Benefits

GANDALF can be used for:

- Data processing and evaluation tool
- Data management of large data setups
- Data conversions between various data formats

The main focus of the tool is urban drainage data processing. There are procedures for particular data types rating, which use hydraulic figures and regression relations.

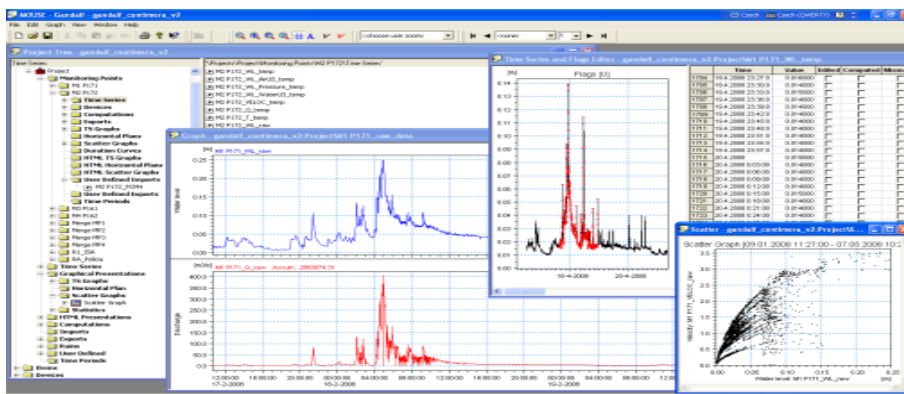
GANDALF is an efficient tool for processing monitoring campaign's data.

The system is designed to organise large data sets.

Time series, containing data from several years, is stored at intervals of one or two minutes and can easily be handled in the system.

Long term support and applications in many projects.

Demo version can be used as data viewer.



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Selected tools

- Calculations of correlating data and parameters based on empirical and regression relationships
- Full implementation of custom tags – flags
- Site map for the spatial presentation of the monitoring points
- Support of data import and export from / to different measurement devices and software
- User-friendly graphical interface with direct outputs in the form of HTML presentation
- Easy orientation in the data
- Statistics / scatter graph



Basic computational functions

- **Exponential** – calculating an exponential equation in the form $Q=A*(h-B)^C+D$.
- **Polynomial** - calculating an equation in the form $Q=Ax^4+Bx^3+Cx^2+Dx+E$.
- **Merge TS** – joining two time series into a (new) output time series.
- **Q-Manning** – calculation of the Manning flow equation.
- **Equidistant** – building the new time series with equitant time step originating from the existing non-equidistant.
- **Q-velocity** – calculating flow's continuity equation.
- **Tabular** – calculating output series based on user-defined tables (input / output).
- **V-notch weir (Rectangular weir)** – using standard hydraulic equation for v-notch and rectangular weir.
- **Rain intensity** – the calculation of the intensity of rainfall time series record of rollover.
- **Combination** – combining the two time series based on the selected calculation formula.
- **Average** – calculate output time series weighted average.
- **Timeshift** – shifting the whole time series over a given time.
- **Accumulation curve** – accumulative curve from source data.
- **Mask/Flag transfer** – setting flags in time series according to flags in another time series.

HW / SW requirements

- Gandalf is compatible with Microsoft Windows - Windows 7 / Windows 8 / Windows 10.
- Minimum RAM requirement is 2GB. Recommended RAM is 4GB

Training

- regular training and individual training as users needed, to detail see web www.dhigroup.com/Training
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Demo version and other information on
<http://worldwide.dhigroup.com/cz/monitoring/software>