



# PatternFinder

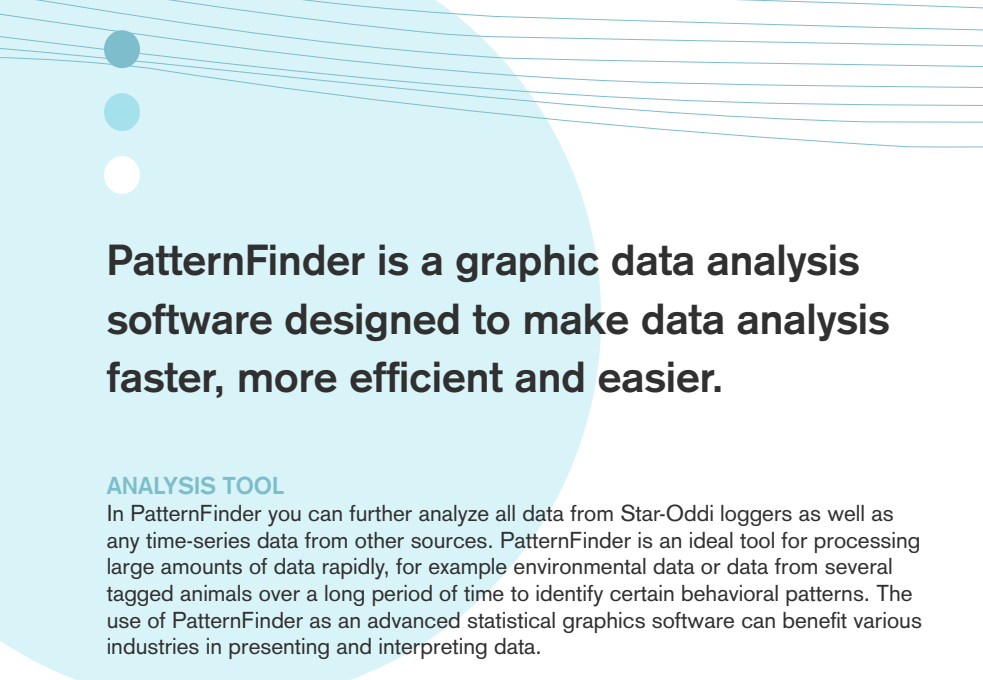
Graphic data analysis software



**STAR : ODDI**

Logging Life Science

[www.star-oddi.com](http://www.star-oddi.com)



# **PatternFinder is a graphic data analysis software designed to make data analysis faster, more efficient and easier.**

## **ANALYSIS TOOL**

In PatternFinder you can further analyze all data from Star-Oddi loggers as well as any time-series data from other sources. PatternFinder is an ideal tool for processing large amounts of data rapidly, for example environmental data or data from several tagged animals over a long period of time to identify certain behavioral patterns. The use of PatternFinder as an advanced statistical graphics software can benefit various industries in presenting and interpreting data.

PatternFinder works seamlessly together with Star-Oddi supporting softwares SeaStar, Mercury and FoodStar, where retrieved data can be transferred to PatternFinder with a click of a button.

## **IMPORT**

All text format data can be easily imported to PatternFinder for analysis.

## **PROJECTS**

In PatternFinder you can create 'Single File Projects' or 'Multiple File Projects' by selecting one or many data files to work with. The 'Multiple File Project' allows you to analyze data from several sources at the same time.

## **ALIAS SYSTEM**

The user can easily create his own file system.

## **UNITS AND COLOR SCHEMES**

The user can define units and create a corresponding color scheme.

## **GRAPHICS**

All operations in PatternFinder are displayed in graphic and tabular form.

## **EXPORT**

All analysis results can be exported to other software programs.

## **HISTORY**

The history of all operations and their results is registered and can be viewed simply by clicking the 'History' button found in all graphs.

# ADVANTAGES AT A GLANCE

- In-depth analysis tool
- Graphical, fast and easy to use
- Saves time in data analysing
- An expert software for data logging systems (DAT files)
- Import any time-series data
- Project based, for single and multiple data series

## Key Features

### PERIODIC STATISTICS ANALYSIS

Statistical analysis with user defined time periods is displayed in a 15 signal graph including one signal for each statistical parameter: maximum, minimum, middle, mean, median, mode, variance, range, total, standard deviation, relative standard deviation, points, energy, kurtosis and skewness. Each statistical parameter signal can be selected and saved as a separate signal and used for further analysis.

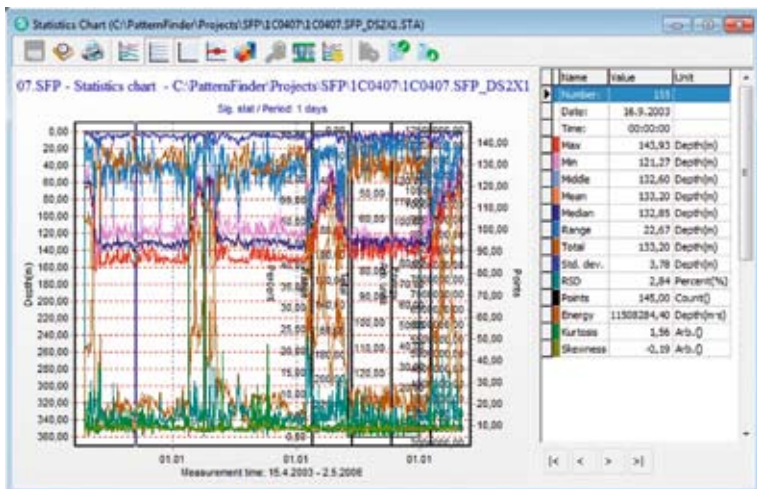


Figure 1: Periodic statistics analysis

## SIGNAL FILTERING

Various filtering options are available in PatternFinder which can be used to even out irregularities, filtering out “noise” or preparing signals for event analysis or pattern recognition.

## SIGNAL OPERATIONS

Signal operations include subtracting one signal from another and comparing and performing a correlation analysis of two signals.

## OVERLAYING AND ANALYZING MULTIPLE SIGNALS

Multiple signals (from one or many sources) can be overlaid and viewed in the same graph. The data can be viewed as it is, shifted to start at the same time or as daily or annual data. Interpolation of the signals is also possible.

The user can perform an ‘Overlay’ statistical analysis. The results are presented in a 14 signal graph. Each statistical parameter signal can be extracted and saved as a separate signal and analyzed further.

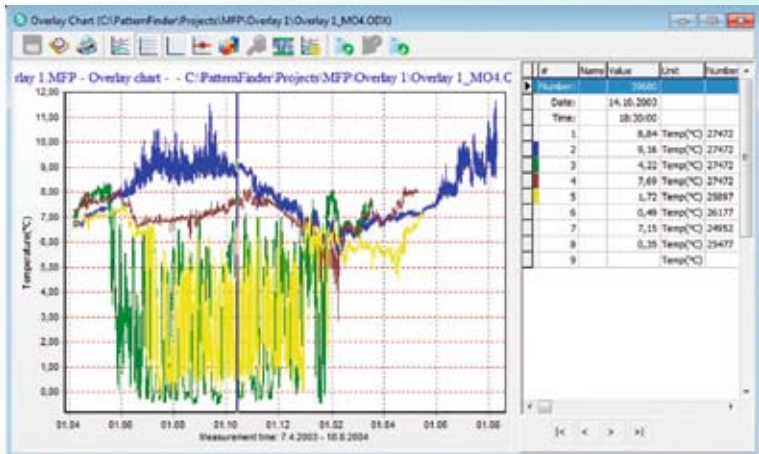


Figure 2: Overlay

## EVENT ANALYSIS

Two types of event analysis are available in PatternFinder, behavioral event analysis and ambient/level event analysis. The results from both analysis methods are displayed in an 'Event' graph which is similar to 'Gantt' diagrams. Many 'Event' graphs can be combined in a 'Multi-event' graph.

Periodic statistical analysis on events is possible, resulting in a ten signal statistics graph. Each statistical parameter signal can be extracted and saved as a separate signal and analyzed further.

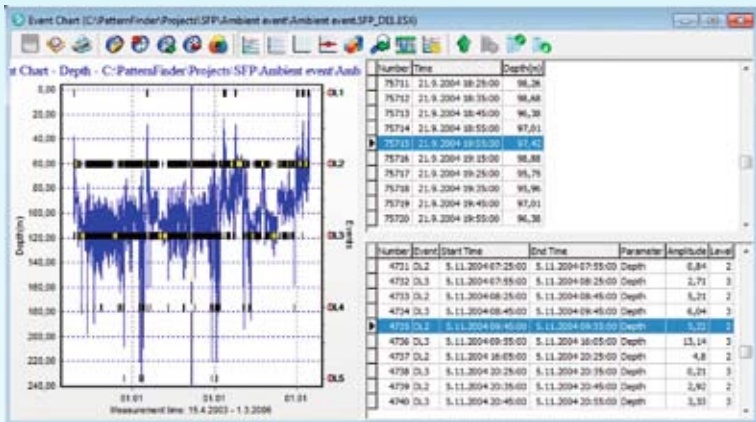


Figure 3: Event analysis

## PATTERN ANALYSIS

PatternFinder can find patterns in data either by detecting occurrences of user defined patterns or by scanning the data for possible patterns. The results are presented in a 'Pattern' graph.

Periodical statistics analysis on the patterns is possible. The results are displayed in a ten signal graph. Each statistical parameter signal can be extracted and saved as a separate signal and analyzed further.

## DOCUMENTATION

PatternFinder comes with extensive documentation which includes a detailed user manual, tutorials that cover every possible operation in PatternFinder and case studies. All the latest documentation is available on the Star-Oddi website: <http://www.star-oddi.com/Online-Support/User-Manuals/PatternFinder/>

## AUTOMATIC UPDATES

New versions of PatternFinder along with documentation are automatically updated in the software.

## PERSONAL SERVICE

Customers are Star-Oddi's best advisors. We are always looking for new ideas and ways to improve our products. Please contact us if you have any suggestions for us.

## STAR-ODDI LTD.

Founded in Iceland in 1985, Star-Oddi has become recognized as one of the world's leading manufacturers of technology for research and industry.

Since 1993, Star-Oddi has been manufacturing the Data Storage Tag, a miniature data logger that we developed for a wide range of industrial and research use.

The company operates in the global marketplace. Our mission is to offer excellent quality, reliability and well designed, unique products.

### **The saga of Star-Oddi (Stjörnu-Oddi)**

Oddi Helgason lived and worked in Flatey, Skjalfanda, in northern Iceland in the twelfth century. He was a hired labourer on a farm and differed from others by his outstanding knowledge. He used a lot of his time analyzing the movements of the sun, moon and stars that resulted in his nickname Star-Oddi.

Star-Oddi's work is considered to be the greatest engineering achievement of the Viking Age, enabling the Vikings to sail over long distances and find their way back home again. Later, scientists have shown that he made remarkably exact observations, centuries ahead of his time.

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