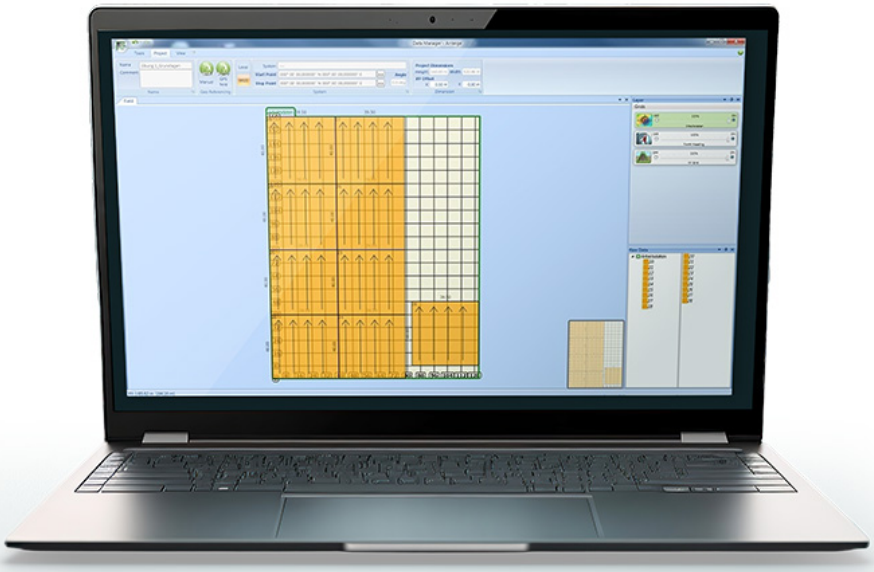
FOERSTER

DATA2LINE PRODUCT FAMILY

Evaluation and project management software for geophysical measurement data



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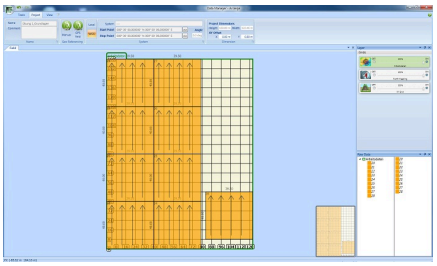


From measurement data to reliable results. DATA2LINE is FOERSTER's evaluation and project management software for managing, processing, visualizing and analyzing geophysical survey data. From processing recorded measurement data and geo-referencing to visualization and documentation, the software supports a consistent workflow for a wide range of survey applications.

DATA2LINE BASIC provides the common foundation. Measurement data from different sources and formats can be imported, processed, geo-referenced and visualized in 2D or 3D. A flexible, layer-based user interface supports the clear organization of even complex projects, while export and reporting functions enable transparent documentation of the results.

For specific applications, DATA2LINE can be extended with the UXO, BM and GEO modules. DATA2LINE UXO supports the manual and automatic analysis of magnetic anomalies in surface surveys. DATA2LINE BM is designed for the evaluation of geomagnetic borehole data and the localization of suspected ferromagnetic objects. DATA2LINE GEO provides additional filters for targeted processing and visualization of complex measurement datasets.

This makes DATA2LINE a modular software environment for applications ranging from UXO and borehole surveys to archaeological and geophysical investigations.

YOUR ADVANTAGES AT A GLANCE

Modular software concept: BASIC as the common platform, flexibly expandable with UXO, BM and GEO

Versatile data import: Processing of different geophysical measurement data and common data formats

Traceable data processing: Data is processed using copies while the original sensor data remains unchanged

Flexible visualization: Geo-referenced display and analysis of measurement data in 2D and 3D

Structured project management: Layer-based organization of measurement data, maps, images and additional project information

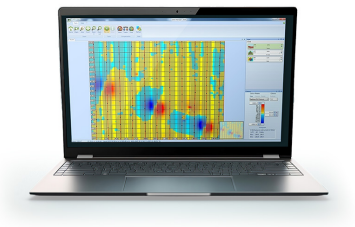
Efficient documentation: Export of data and views as well as automatic generation of customized reports

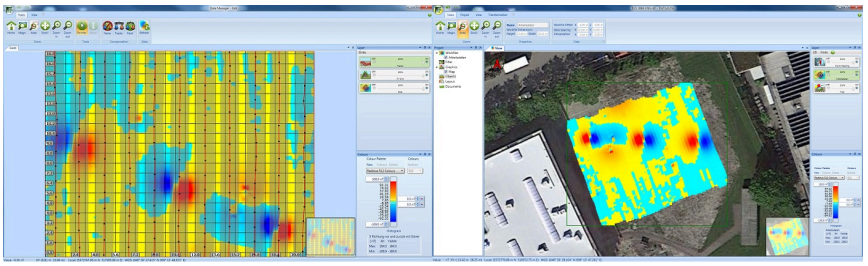
TECHNICAL INFORMATION

OPERATING SYSTEM:	Windows® XP SP3, Windows® Vista, Windows® 7 / 8 / 10 (32/64 bit)
PROCESSOR:	Intel Core i5, 2nd generation or comparable
RAM:	> 2 GB (4 GB recommended)
INTERFACES:	— 1 × USB port for hardware key — 1 × USB or RS232 port for data transfer
ACCESSORIES:	CD/DVD/BD drive, DirectX 10-compatible graphics card
MODULES:	DATA2LINE BASIC, UXO, BM, GEO
REQUIREMENT FOR ADD-ON MODULES:	DATA2LINE BASIC
NATO STOCK NUMBER:	— 7030-12-395-6062 (DATA2LINE BASIC) — 7030-12-395-6065 (DATA2LINE UXO) — 7030-12-429-1181 (DATA2LINE BM)

DATA2LINE BASIC

Software for processing, visualizing and managing geophysical measurement data





The central platform for geophysical measurement data. DATA2LINE BASIC forms the foundation of the DATA2LINE product family and supports the structured management, processing and visualization of geophysical survey data. Different measurement data and file formats can be combined within a common project environment without modifying the original sensor data.

With comprehensive GIS functionalities, DATA2LINE BASIC combines data import and export, geo-referencing, the integration of multiple datasets as well as maps, images and other graphical elements within a central project environment. This enables even complex survey projects to be clearly organized and transparently documented.

A wide range of functions is available for processing magnetic field data. Measurement data can be compensated manually or automatically, individual probes in multi-probe systems can be corrected separately, and faulty tracks can be shifted, mirrored or removed. Freely selectable interpolation distances also enable data gaps to be filled as required.

Recorded survey fields can be positioned and geo-referenced manually or automatically. Different measurement parameters can be organized in separate workspaces and compared directly. Freely definable local coordinate systems as well as 2D and 3D views enable flexible visualization of survey data.

A layer-based user interface supports the clear organization of all project information. Object lists and views can be exported or automatically combined into customized reports. Integrated user management also supports controlled access to sensitive data. All project information, including the original sensor data and additional documents, can be stored together in a single container file.

YOUR ADVANTAGES AT A GLANCE

Versatile data import: Import of FEREX measurement data as well as numerous standard and third-party formats

Secure data processing: Original sensor data remains unchanged, as processing is always performed on copies

Comprehensive data processing: Compensation, track correction, data cleanup and interpolation for targeted preparation of measurement data

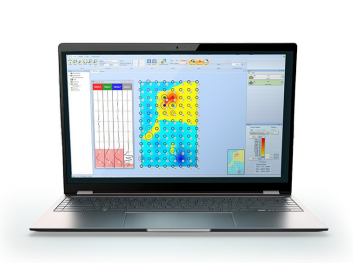
Flexible geo-referencing: Manual or automatic positioning of survey fields and support for freely definable local coordinate systems

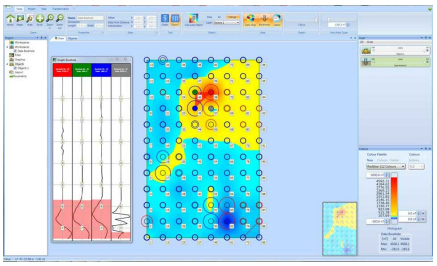
Clear visualization: Flexible color scales as well as 2D and 3D views for intuitive interpretation of measurement data

Efficient project management: Layer-based project organization, user management and automatic report generation

DATA2LINE BM

Software module for evaluating geomagnetic borehole survey data





Precise evaluation of geomagnetic borehole data. DATA2LINE BM extends DATA2LINE BASIC with dedicated functions for evaluating borehole surveys. The module processes geomagnetic data recorded in boreholes and enables the determination of the position, depth and size of suspected ferromagnetic objects.

DATA2LINE BM supports a structured workflow from the project preparation stage. Predefined borehole grids simplify survey planning, while individual grids can also be created. Position information from depth measuring devices can be imported automatically, and borehole position, offset to the reference surface and borehole depth can be adjusted subsequently. Complete borehole grids as well as individual positions can also be geo-referenced.

For evaluation, magnetic anomalies are analyzed using automatic dipole fitting and triangulation. In addition to the X/Y position and depth, parameters including diameter, volume, inclination and declination can be calculated. Magnetic anomaly maps can also be displayed at different depth levels.

Results can be compiled into object lists and exported for further use. Borehole field maps, borehole data and object lists can also be exported for transparent documentation.

YOUR ADVANTAGES AT A GLANCE

Precise object localization: Determination of the position, depth and size of suspected ferromagnetic objects

Efficient project preparation: Predefined borehole grids with the option to create individual grid layouts

Flexible data correction: Subsequent adjustment of borehole position, offset to the reference surface and borehole depth

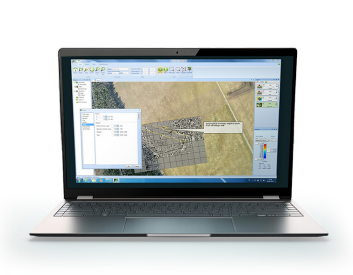
Geo-referenced borehole data: Geo-referencing of complete borehole grids and individual positions

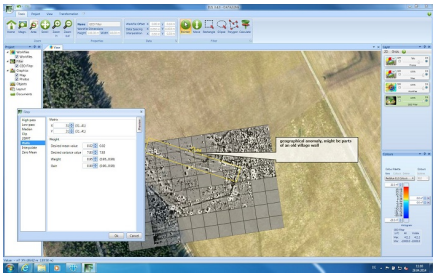
Automated evaluation: Analysis of magnetic anomalies using automatic dipole fitting and triangulation

Comprehensive documentation: Creation and export of object lists, borehole field maps and additional evaluation results

DATA2LINE GEO

Software module for advanced filtering and processing of geophysical measurement data





Making relevant structures visible in complex measurement data. DATA2LINE GEO extends DATA2LINE BASIC with powerful filters for targeted processing and visualization of geophysical measurement data. Originally developed for archaeological surveys, the module also supports the evaluation of challenging datasets in UXO detection.

A range of filters helps reduce interfering signal components and highlight relevant anomalies. High-pass and low-pass filters remove specific frequency components, while the median filter reduces data outliers and smooths noise and signal peaks. Periodic image disturbances, such as stripes, can be processed using the 2D Fast Fourier Transform (2D FFT).

Additional tools support targeted optimization of data visualization. The Wallis filter enhances local contrast to make weak anomalies more visible. The clip filter limits minimum and maximum values, while zero compensation reduces stripes parallel to the direction of movement. Missing data can be reconstructed using different interpolation methods.

Filters can be applied and combined within the same or different layers. A preview function and individually adjustable parameters make it easier to select suitable settings and enable targeted processing even for complex measurement datasets.

YOUR ADVANTAGES AT A GLANCE

Comprehensive filter functions: High-pass, low-pass, median, clip, 2D FFT, Wallis and zero compensation for targeted data processing

Enhanced visibility of weak anomalies: Filters for reducing interfering signal components and improving local contrast

Reduced image disturbances: Targeted processing of noise, outliers, signal peaks and periodic disturbances

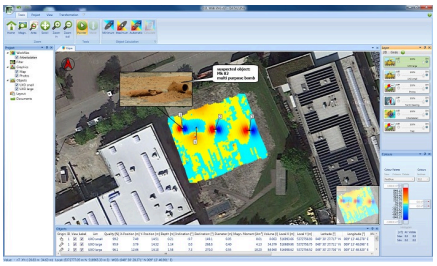
Flexible filter combinations: Application and combination of multiple filters within the same or different layers

Individual parameter settings: Preview function and adjustable settings for each filter

Advanced interpolation: Reconstruction of missing data using linear, polynomial and 1/R interpolation methods

DATA2LINE UXO

Software module for analyzing magnetic anomalies in surface surveys



Systematic analysis of magnetic anomalies. DATA2LINE UXO extends DATA2LINE BASIC with dedicated functions for the manual and automatic evaluation of magnetic field data from surface surveys. The module supports the analysis of magnetic anomalies, for example in UXO surveys, and enables relevant object parameters to be calculated from gradiometer and total field data.

For manual evaluation, the poles of a magnetic anomaly can be selected directly to calculate object parameters. Automatic evaluation identifies and assesses anomalies based on twelve definable properties.

Custom object classes can also be created and organized in different layers, making it easy to distinguish between different types of anomalies, such as large and small targets.

Calculated objects are compiled in detailed object lists. In addition to their position in local and global coordinates, parameters including depth, inclination and declination, diameter, magnetic moment and volume can be displayed. Filtering and sorting functions support the targeted evaluation of extensive datasets.

A 3D view visualizes the calculated position of objects. Object lists can subsequently be exported for further processing or transferred to GPS systems for stake-out in the field.

YOUR ADVANTAGES AT A GLANCE

Manual and automatic evaluation: Analysis of magnetic anomalies from gradiometer and total field data

Automatic object calculation: Evaluation of magnetic anomalies based on twelve definable properties

Flexible object classification: Custom object classes for targeted differentiation and organization of different anomalies

Detailed object parameters: Calculation of position, depth, diameter, magnetic moment, volume, inclination and declination

Clear 3D visualization: Visualization of the calculated position of objects

Efficient object management: Filtering, sorting and exporting of object lists, including for use with GPS systems

FOERSTER

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The FOERSTER Group is represented by subsidiaries and representatives in over 60 countries worldwide. You can find a complete overview on our website.

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