PRODUCT INFORMATION

DATA2LINE BASIC/UXO/BM/GEO

Evaluation and project management software

proof.

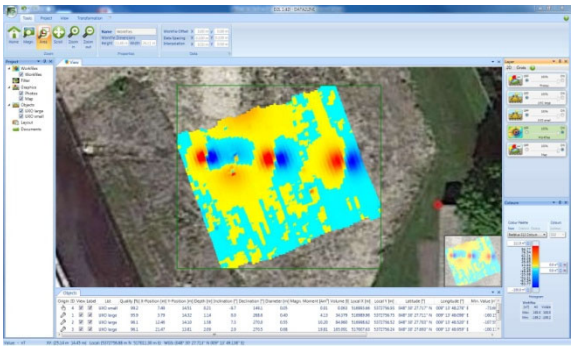
Product description

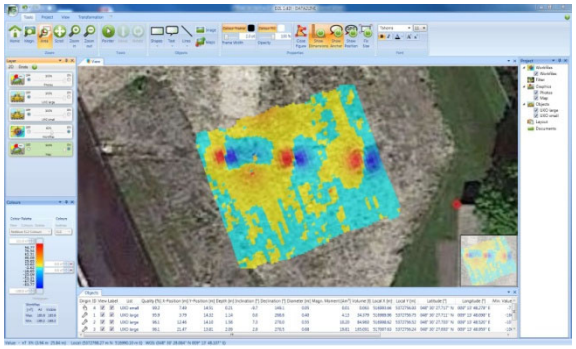
The DATA2LINE software is a complete solution to administrate, edit and evaluate your geophysical survey.
The software compromises the BASIC software as well as the UXO, BM and GEO Module.

DATA2LINE BASIC Software

Features

- User administration to limit access to sensitive data
- User-defined working space - presentation of all information in separate layers
- Layer with adjustable transparency can be activated or deactivated
- Layer-related toolbar

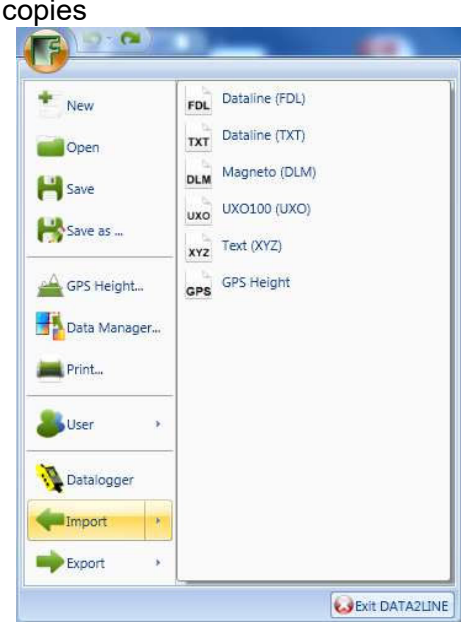


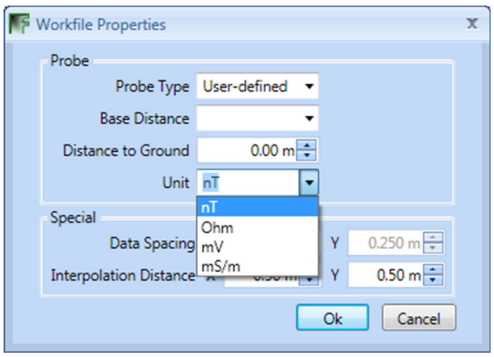


- Container file with the original field data and every other created content
- Import and Export of any document (e.g. emails, pdf, pictures etc.) into the container file
- All processing steps can be undone easily

Import of measuring data

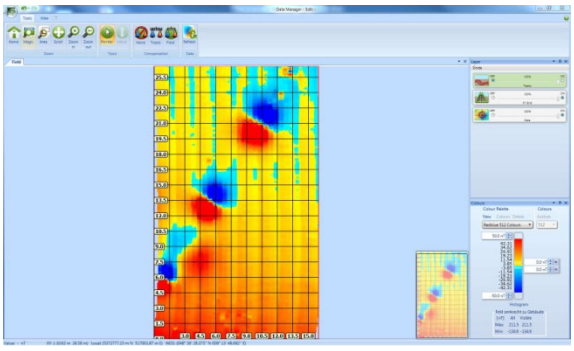
- Import of various geophysical measuring data (i.e. resistivity, conductivity…)
- Direct import from FEREX 4.034 or SD card, FEREX 4.032 DLG or DATAMONITOR 3
- No change of the raw data as the software always works on copies
- Maximum field size 10 km x 10 km, no limits in project size
- Import of different file formats (fdl, txt, dlm, uxo, xyz, raw, csv) allowing import from third party systems
- Import of FEREX probe magnetometer data, total field sensor data or user defined sensors from third party systems

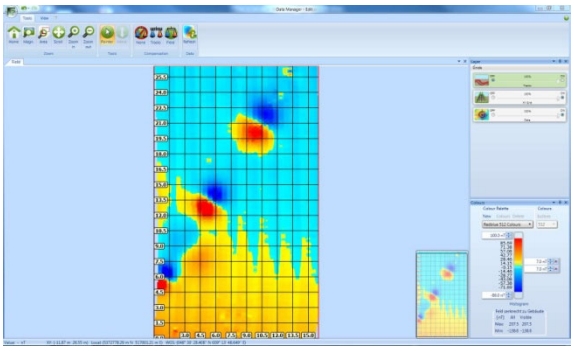




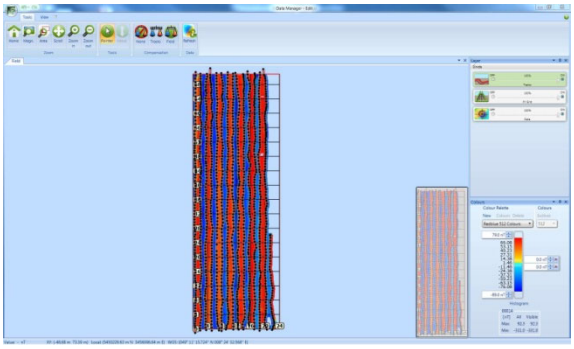
Preparation of magnetic field data

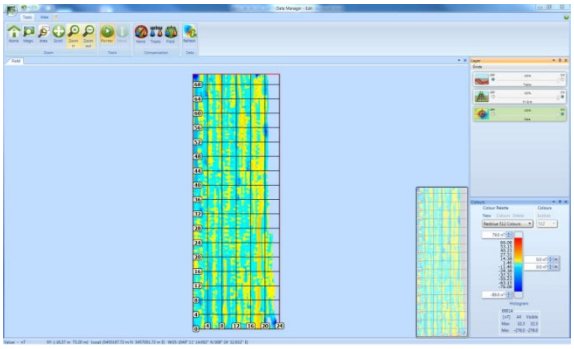
- Manual or automatic compensation using track or field information



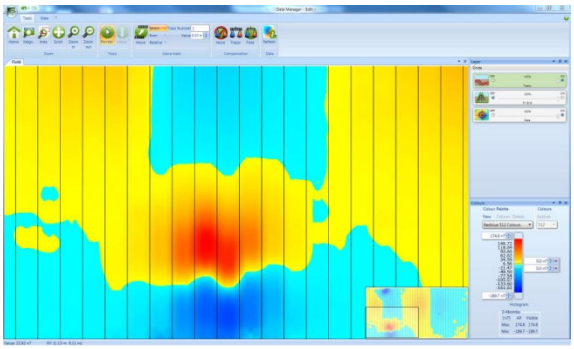


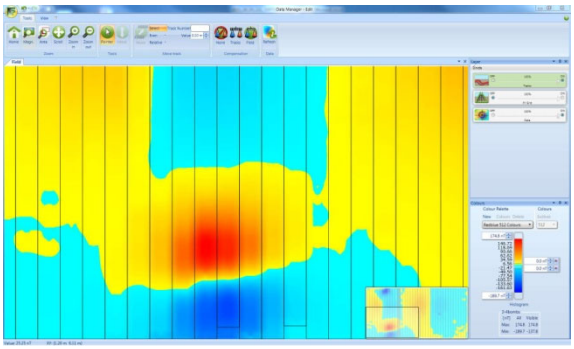
- Compensation of single probes from a multi-probe system

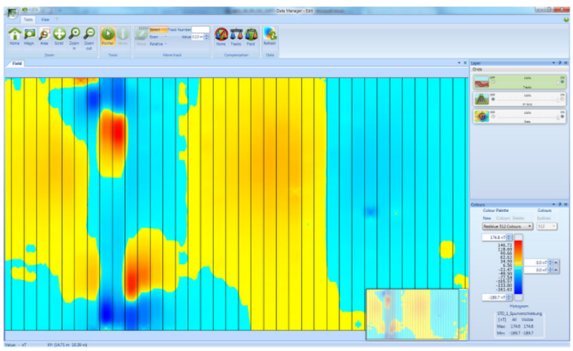


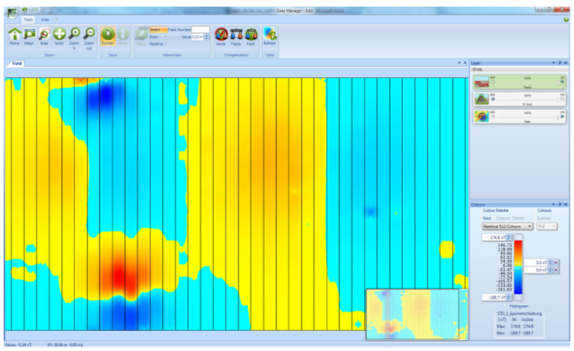


- Shifting and mirroring of tracks to correct recording errors

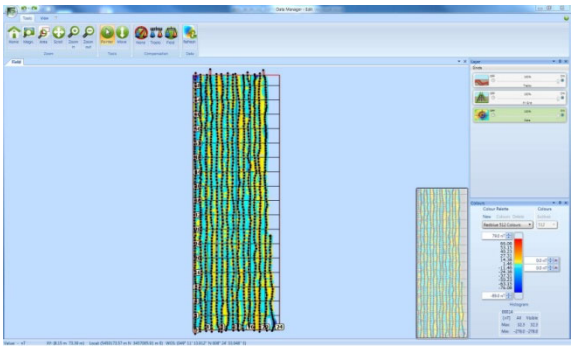


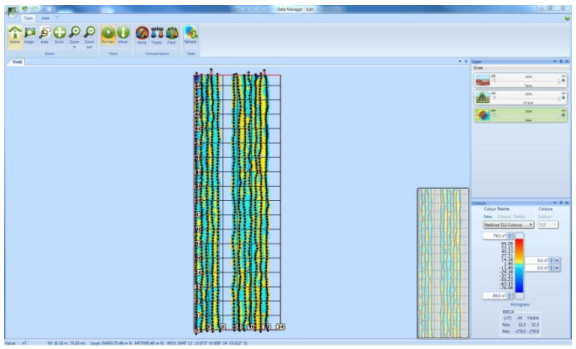






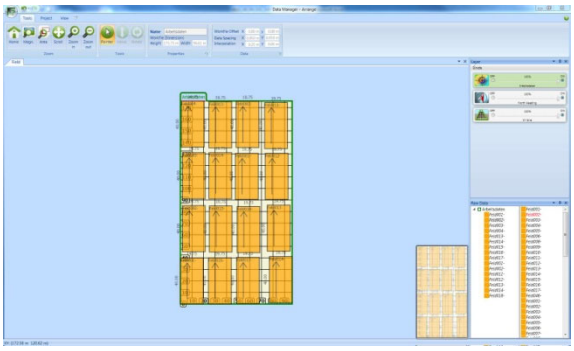
- Deletion of tracks or single data points
- User-definable interpolation distance (e.g. to close gaps)

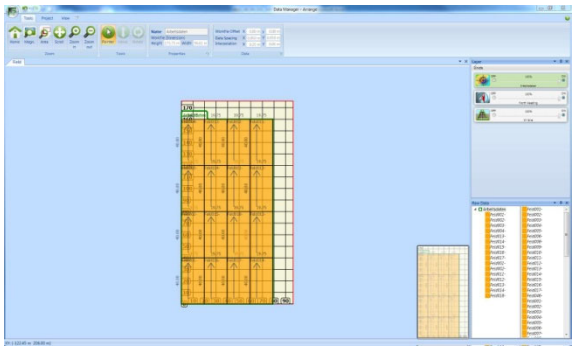




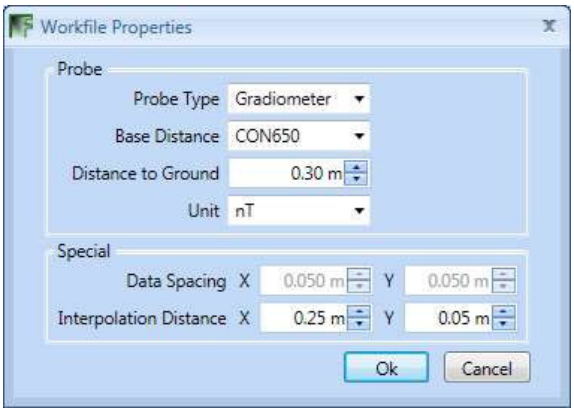
Project preparation

- Manual or automatic positioning of single grids

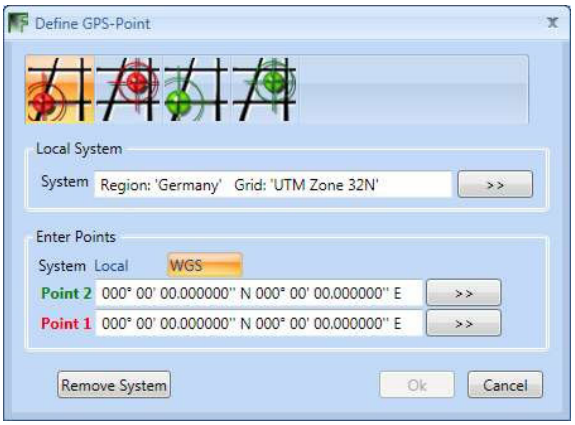




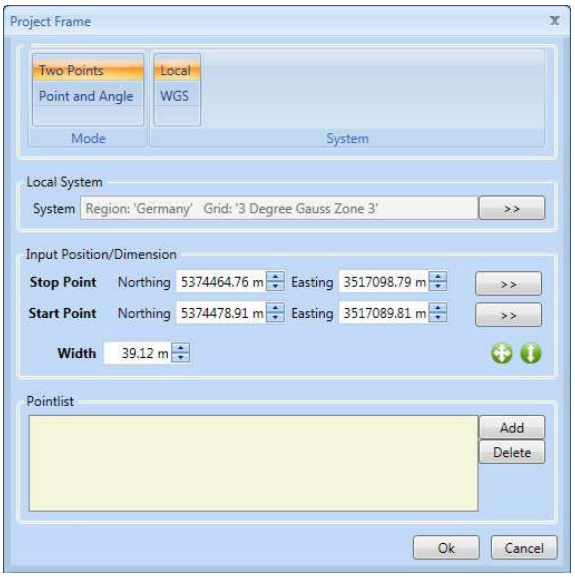
- Definition of sensor and other values for every single field

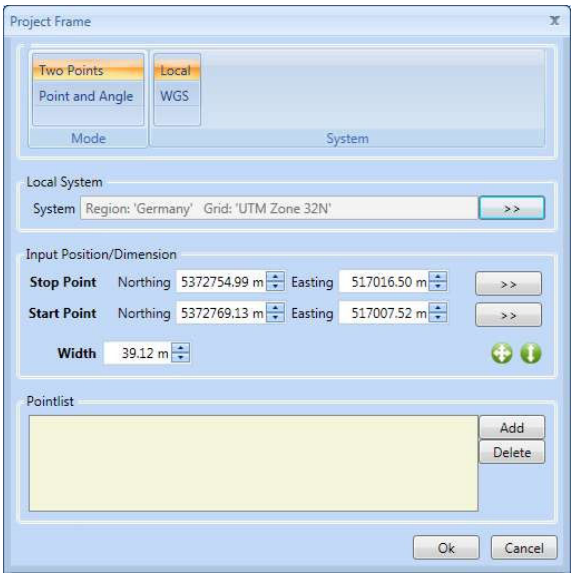


- Aggregation of geophysical measuring data in different work files to compare the different data (e.g. magnetic field, conductivity)
- Manual or automatic geo-referencing of field data

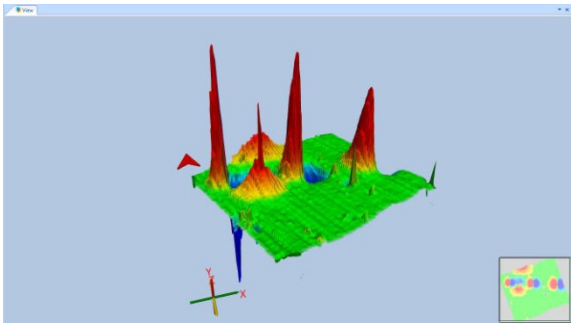


- User-definable locale coordinate system and easy transformation between different local coordinate systems



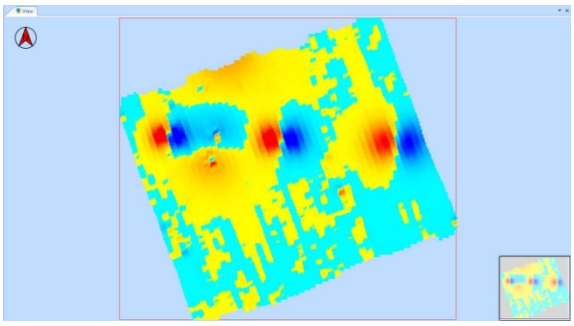


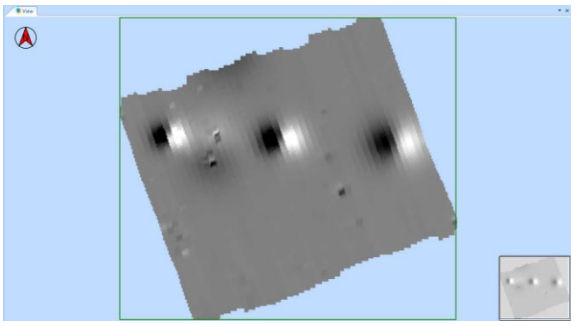
- 2D or 3D view of the magnetic map based on measurement values or GPS-height data



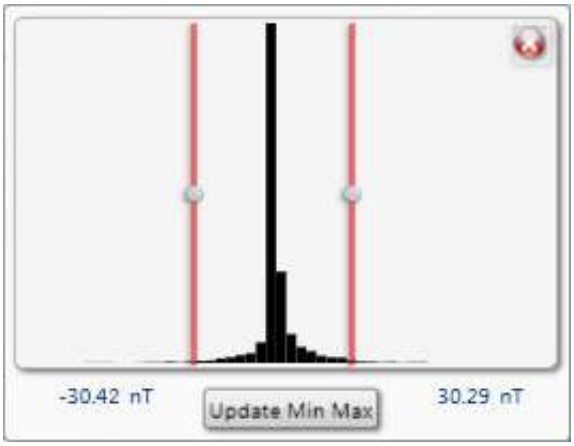
Preparation, visualisation and presentation of data

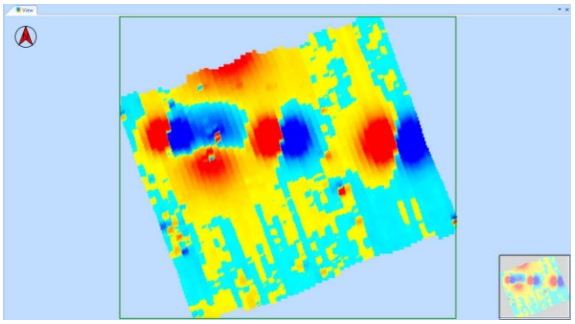
- Adjustment of color resolution (up to 1024 colors), choose between blue & red, black & white or any user defined color scheme



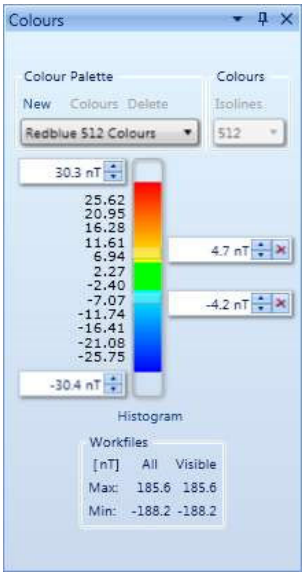


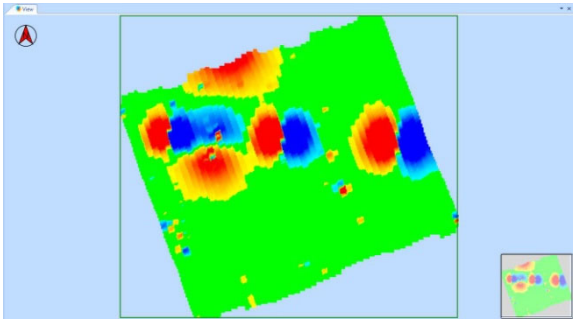
- Adjust color saturation with respect to data dispersion to enhance optimum color distribution



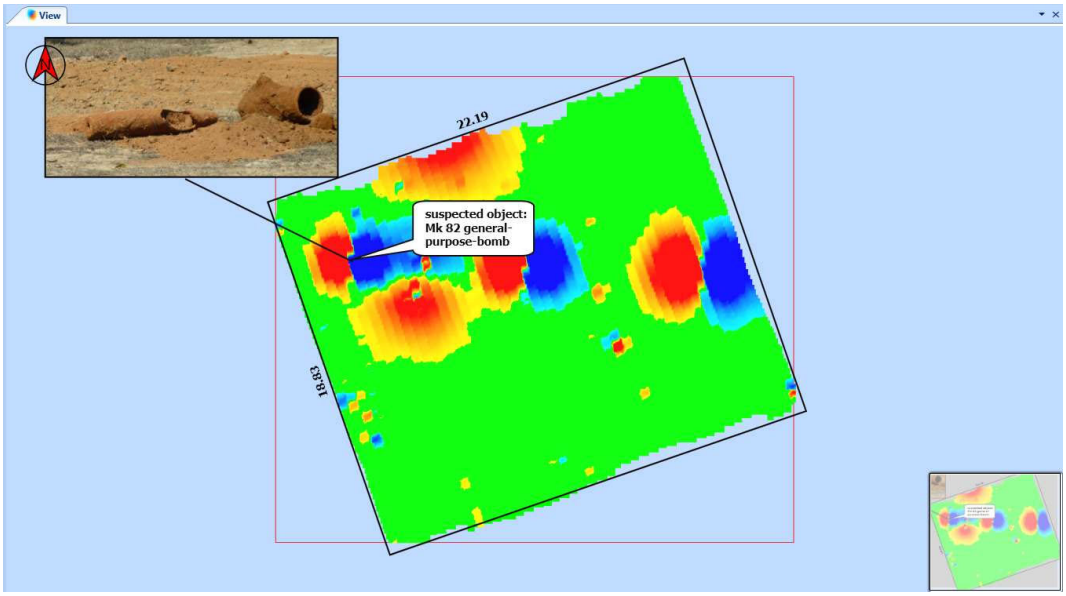


- User defined neutral area with a third color to reduce color effects





- Import of pictures, text fields for comments and geometric forms with adjustable size, color and transparency



- Import of maps from pictures, aerial pictures or map files like AutoCAD

Reports

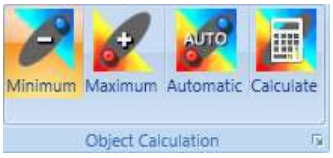
- Export of object lists and view area for own reports
- Automatic creation of reports including format adjustments like company logo

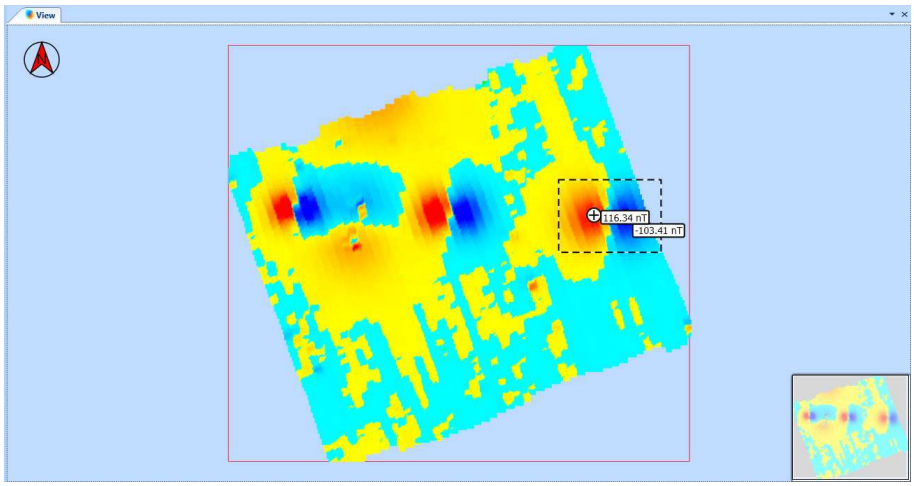
DATA2LINE Module UXO

The DATA2LINE UXO module provides capability for the manual or automated evaluation of magnetic field data for anomalies and the creation of detailed object lists as well as the evaluation of single axis gradiometric and total field data.

Manual evaluation

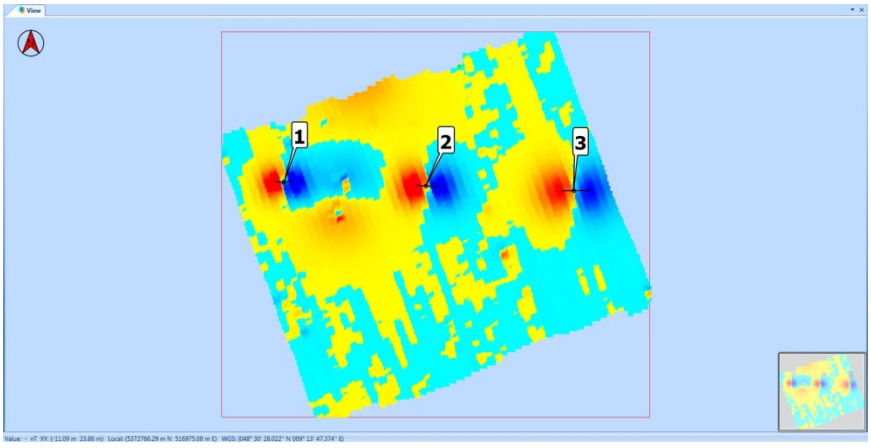
- Easy calculation by manually picking up negative and positive dipole of the anomaly

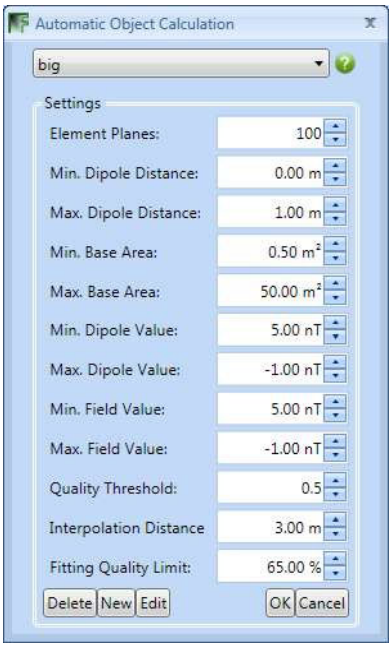




Automatic evaluation

- Automatic evaluation of magnetic anomalies through the definition of 12 values e.g. dipole distance
- Definition of own object classes for automatic evaluation
- Definition of object classes in different layers allow to easily switch between small and large objects

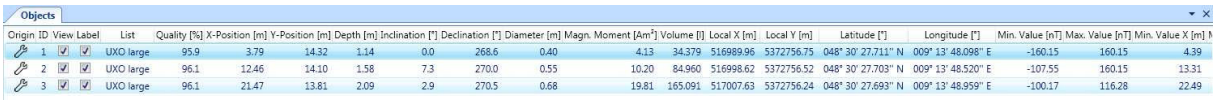




Object list

- Creation of object list with
  - position (X/Y, local and global coordinates)
  - depth
  - inclination and declination
  - diameter
  - magnetic moment
  - volume

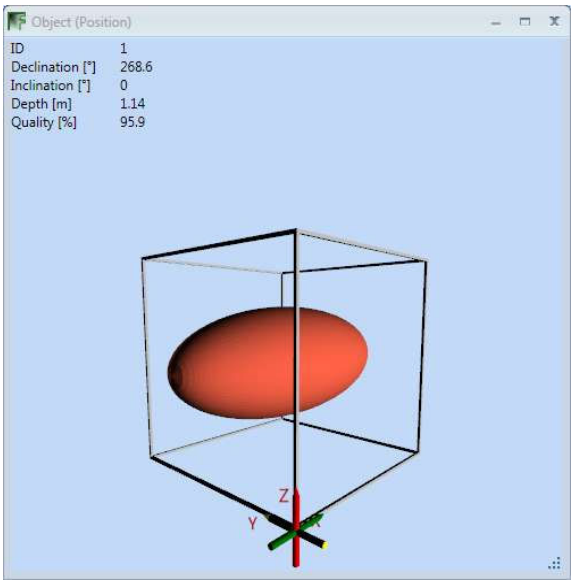
- Filtering through different criteria
- Export of object list as txt file for use with GPS systems (stakeout)



Objects

Origin	ID	View	Label	List	Quality [%]	X-Position [m]	Y-Position [m]	Depth [m]	Inclination [°]	Declination [°]	Diameter [m]	Magn. Moment [Am²]	Volume [l]	Local X [m]	Local Y [m]	Latitude [°]	Longitude [°]	Min. Value [nT]	Max. Value [nT]	Min. Value X [m]
	1	☑	☑	UXO large	95.9	3.79	14.32	1.14	0.0	268.6	0.40	4.13	34.379	516989.96	5372756.75	048° 30' 27.711" N	009° 13' 48.098" E	-160.15	160.15	4.39
	2	☑	☑	UXO large	96.1	12.46	14.10	1.58	7.3	270.0	0.55	10.20	84.960	516998.62	5372756.52	048° 30' 27.703" N	009° 13' 48.520" E	-107.55	160.15	13.31
	3	☑	☑	UXO large	96.1	21.47	13.81	2.09	2.9	270.5	0.68	19.81	165.091	517007.63	5372756.24	048° 30' 27.693" N	009° 13' 48.959" E	-100.17	116.28	22.49

- 3D-view of the object to see the calculated orientation



DATA2LINE Module BM

The DATA2LINE BM module is an evaluation software for geomagnetic data recorded in boreholes to exactly determine location, depth and size of magnetic anomalies.

Features

- Automatic import of encoder data from depth measuring device
- Editing of the imported data
  - Borehole position
  - Borehole offset (z direction)
  - Borehole depth
  - Geo-referencing of borehole patterns or single positions
- Evaluation of suspected ferromagnetic objects
  - Position (X/Y)
  - Diameter and volume
  - Depth
  - Inclination and declination

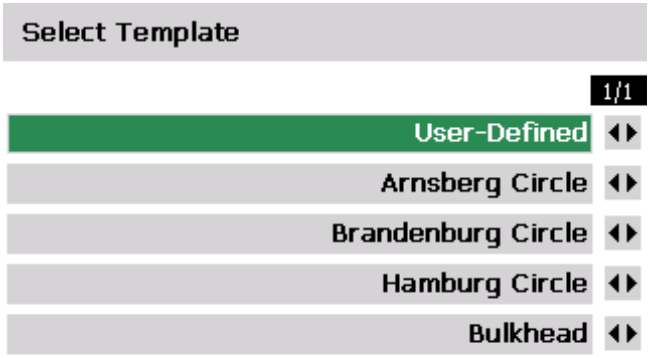
ID	Quality [%]	X-Position [m]	Y-Position [m]	Depth [m]	Inclination [°]	Declination [°]	Diameter [m]	Comment
1	97.8	5.78	1.79	5.00	-54.2	24.7	0.58	DATA2LINE BM

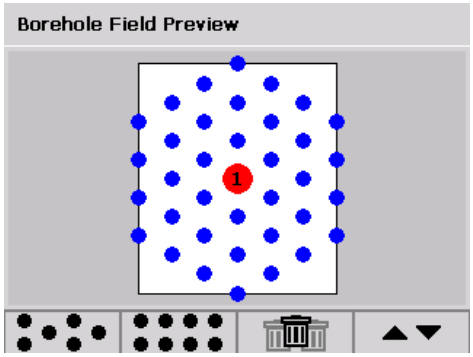
- Preparation and export of object lists
  - Direct export of object lists to FEREX 4.034 or SD card
  - Print of field map, borehole list and object list as overview and in detail - for each borehole
  - Export of object list as txt file for own reports
  - Export of borehole field map and borehole data as image file for reports

Project preparation

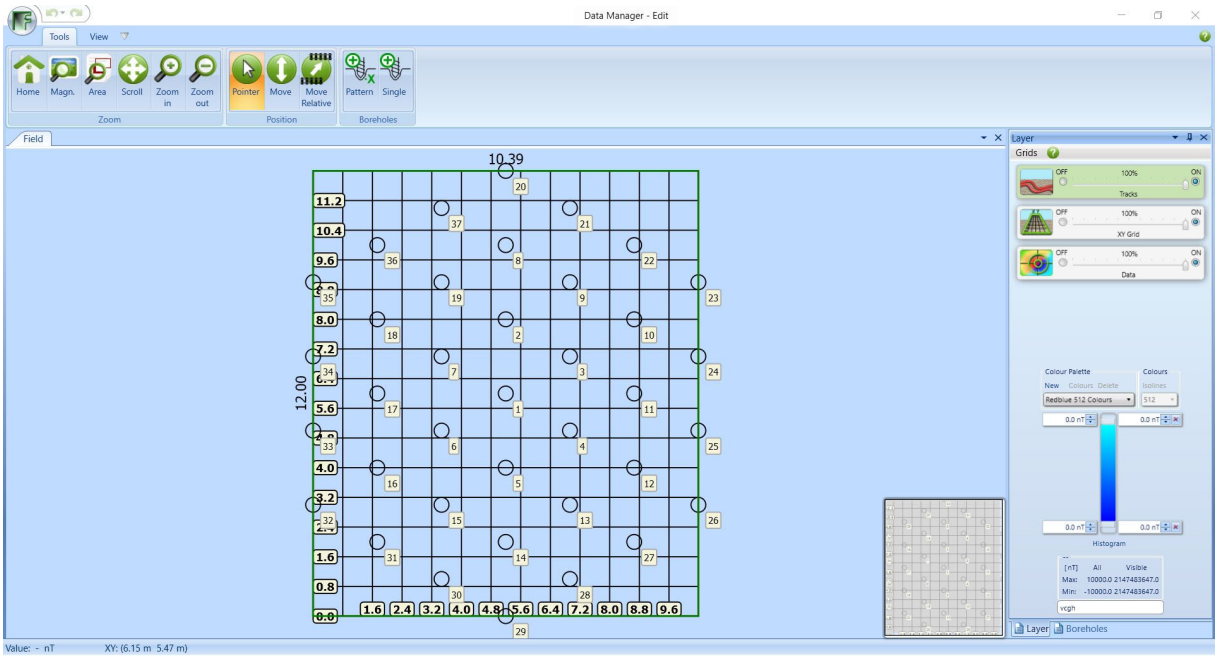
- Efficient and simple project preparation by a choice of predefined borehole patterns in the software as well as directly on the FEREX 4.034
- Definition and creation of customized patterns

- Project preparation directly on the FEREX 4.034



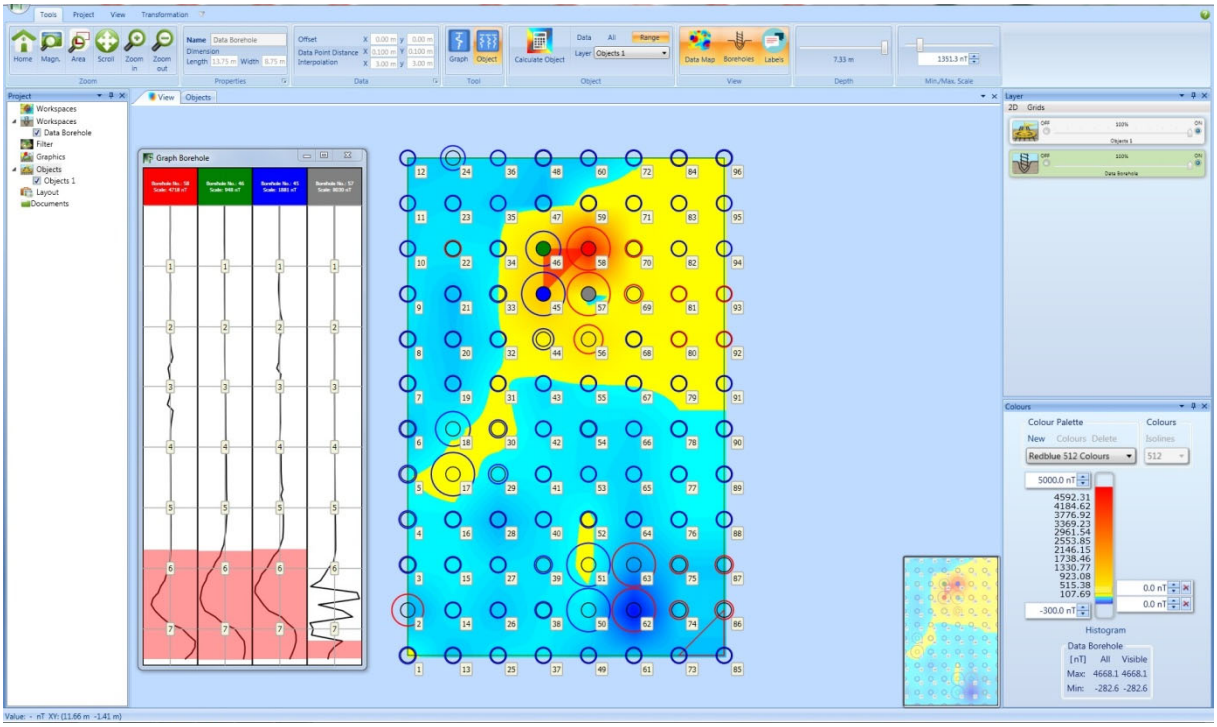


- Project preparation by DATA2LINE BM



Evaluation

- Simple calculation and evaluation of the location of ferromagnetic anomalies by automatic Dipole-Fit and triangulation
- Visualization of magnetic anomaly maps in different depth slices



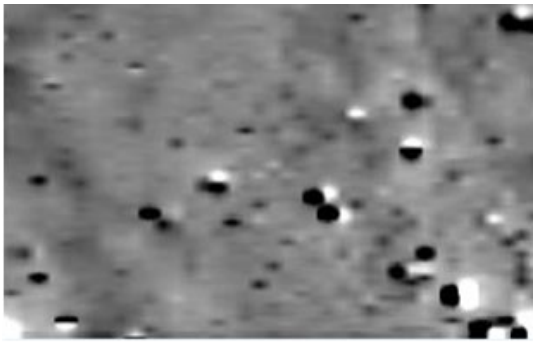
DATA2LINE Module GEO

The DATA2LINE GEO module adds additional filters to enhance the visibility of objects and structures. Originally created to help archeologists it has become a valuable tool for the evaluation of magnetic field data in difficult situations for UXO search.

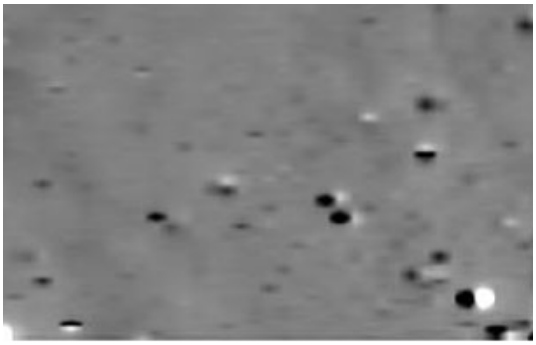
- Use of filters in different layers possible to get a better total enhancement
- Preview function
- Settings for each filter adjustable

High Pass

Before



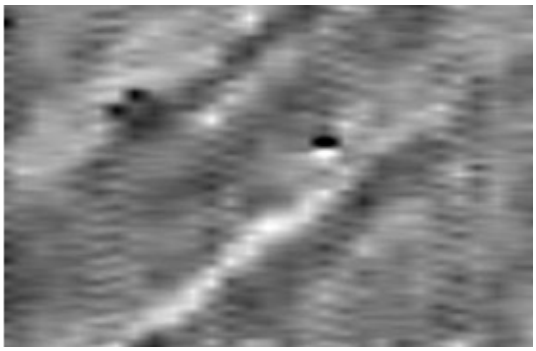
After



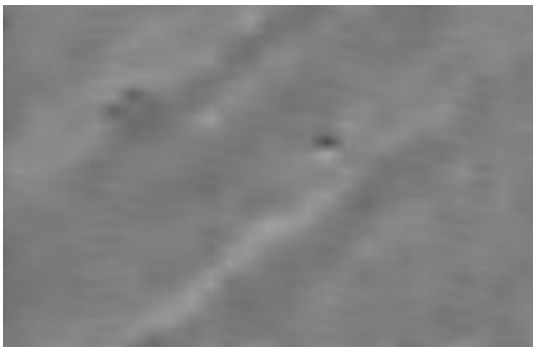
Removes low frequency signals.

Low Pass

Before



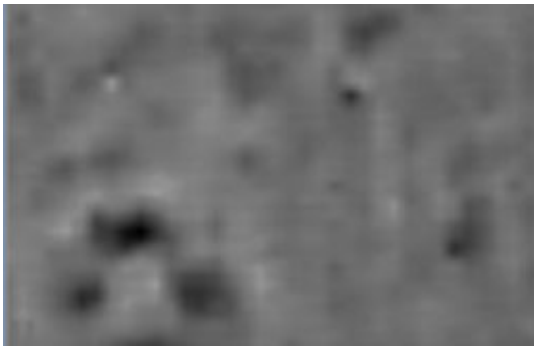
After



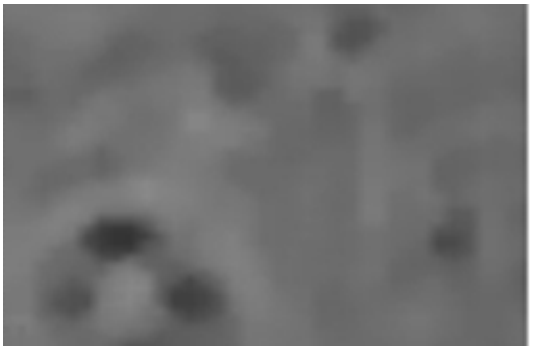
Removes high frequency signals and emphasizes large and week anomalies.

Median

Before



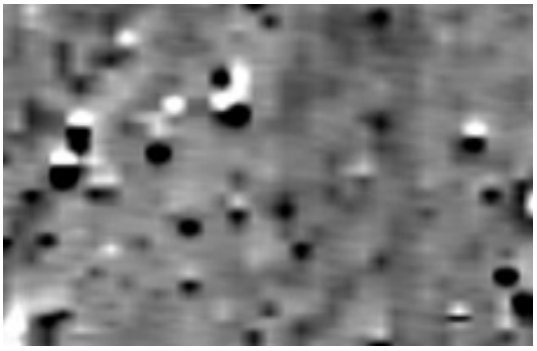
After



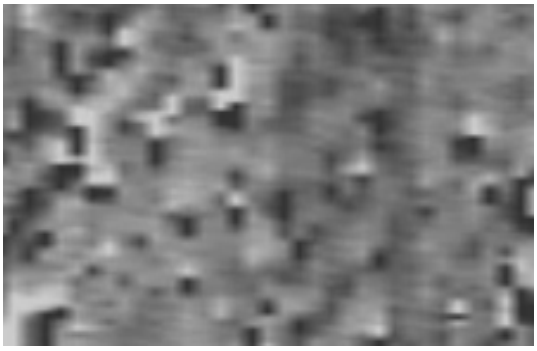
Removes irregular data outliers and smoothes noise and peaks.

Clip (Minimum/Maximum)

Before



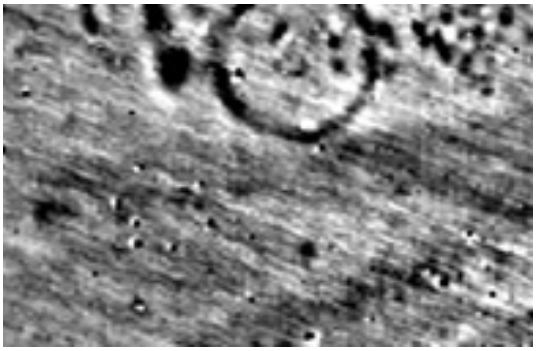
After



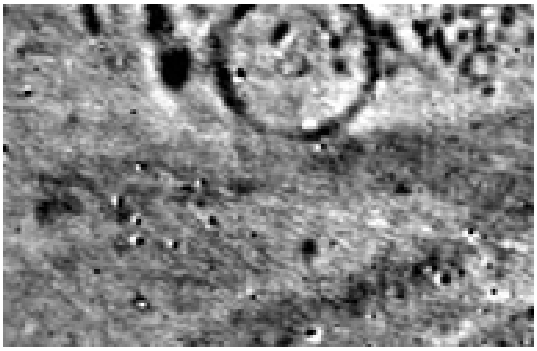
Removes minimum/maximum and enhances the picture as preparation for other filters. It can also be used to cut out data.

2D Fast Fourier Transformation

Before



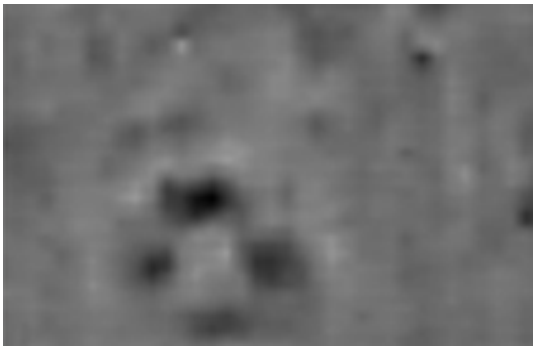
After



Removes periodical artifact like stripes.

Wallis

Before

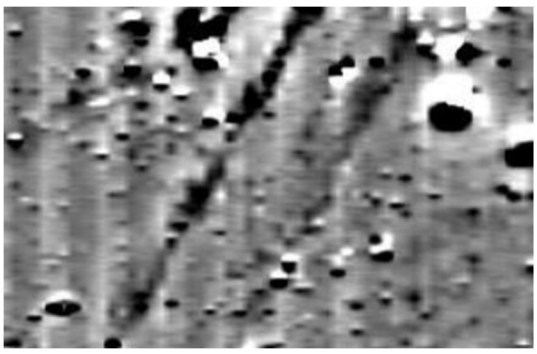


After

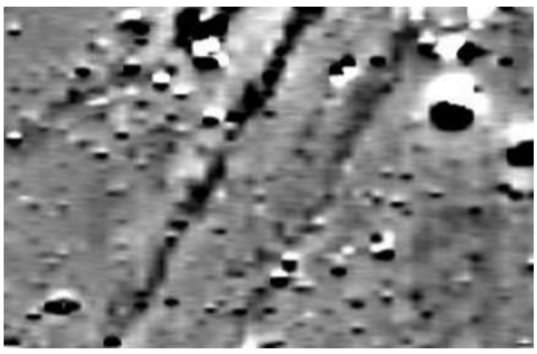
Local contrast enhancement for weak anomalies.

Zero-mean

Before



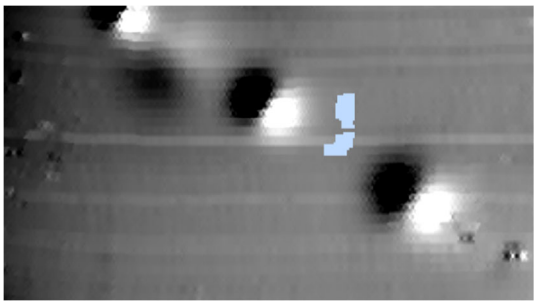
After



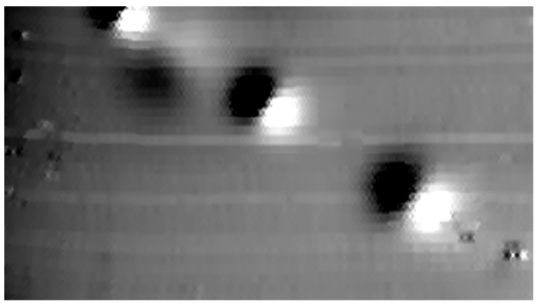
Removes stripes that occur parallel to the moving direction.

Interpolation

Before



After



Interpolation of missing data using different interpolation algorithms (linear, polynomial, 1/R) to enhance the standard linear interpolation.

Minimum hardware- and software requirements

Operating system	Windows XP SP3, Vista, Windows 7 / 8 / 10 (32/64 bit)
Processor	Intel Core i5- 2nd generation or comparable
RAM	more than 2 GB (4 GB recommended)
Interfaces	1 interface for dongle (USB), 1 interface for data transfer (USB or RS232)
Accessories	CD/DVD/BD-Drive, DirectX10 compliant graphics card

Imprint

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