EMIGMA 10
relational database

Vista / W7 / W8.1/W10/W11

Potential Fields
Ground, Airborne, Borehole, Marine

Magnetics

Data Processing
Processing of raw data for marine, ground, borehole
  and airborne data including drones, UAV,
    helicopter stinger and towed instruments
Total field, Vector, Gradient, higher order tensor data
 Enhanced gridding with rectangular grid cells
 Tie Line Corrections
 2D FFT/DFT processing for derivatives, continuation, filtering
 1D, 2D spatial and digital filters
Trend removal
Analytic Signal,
    Reduction-to-Pole including 3 algorithms for low latitudes
Advanced Aeromagnetic Compensation
  for TMI and Vector data

Gradients
  Gradients from TMI, imported gradients or components
    Gradient derivation from multiple sensors, de-rotation
  Modeling and Inversion
  Enhanced contouring with horizontal gradients

Processed EW derivative

Data Display/Analyses/Mapping
 Survey and data imaging and contouring
 Map import/export, map underlays
 Scaled hardcopy maps
 3D Surfaces ~ Contours~ Line Plots
2D and 3D .pdf exports

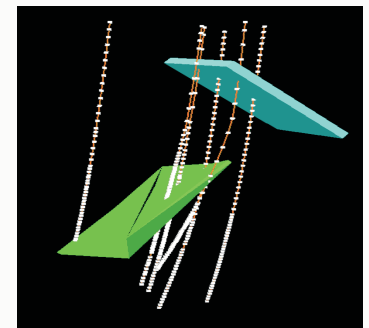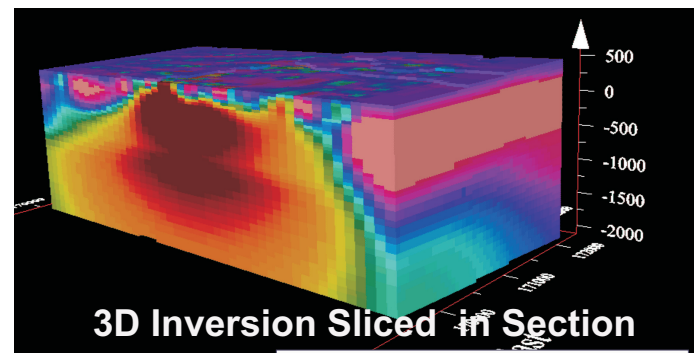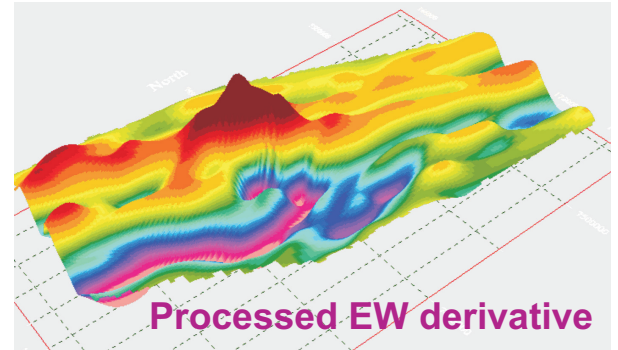**3D Inversion Sliced in Section**

3D Modeling
 Fast and accurate 3D simulations
 Unlimited prisms and polyhedra targets
 Non-linear effects, demagnetization, remanents
 Magnetic channelling & magnetic body interactions
 Import and exports to CAD software
 Simple integration of models with other types of data
 The only commercial product offering such accuracy

Borehole Magnetics

3D Inversion
   Fast Matrix and Large Matrix techniques,   Multi-Processing allowing rapid inversion
   Use of gradients and/or vector components,   Inversions within Topography
   3D inversion volume viewing and exporting,   Visual grid setups
   3D Extended Euler Solutions with Post-Processing,   Inversion for Magnetization Vectors

Processing, Imaging & Interpretation Suite
for Mining, Oil & Gas, Near Surface
Exploration, Environmental, UXO, Geotechnical, Delineation

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EMIGMA 10

Vista / W7 / W8.1/W10/W11
Potential Fields

Ground, Airborne, Borehole, Marine

Gravity

Data Processing
Basic gravity corrections
  includes QCTool with full gravity reductions
  with advanced topography corrections, marine and isostatic corrections
2D FFT processing- derivatives, continuation, filters
1D, 2D spatial and digital filters,

River Basin Model

Data Display/Analyses/Mapping
Survey and data imaging and contouring in 3D
2D multi-compoment grids with contouring
and map overlays/underlays with transparencies
Import/Export maps for many applications
Comprehensive Line Plotting capabilities
5 interpolation techniques with user-selectable
aspect ratio for rectangular cells

Modeling and Inversion within Topography

3D Modeling
Fast and accurate 3D simulations
Unlimited prisms and polyhedral targets
Modeling of variable density topography
3D models with arbitrary strike length
Import and exports to and from CAD software
Simple integration with other types of data

Starting Model built from borehole logs

depth = 200m

depth = 593m

depth = 1365m

starting model built and displayed in EMIGMA©

3D Inversion
Fast Matrix and Large Matrix techniques
Standard Iterative Search technique
3D inversion volume viewing and exporting
Use of gradients in inversions
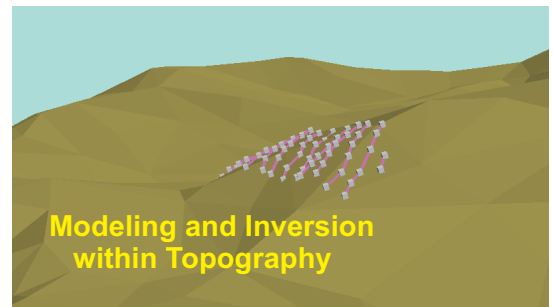Inversions within Topography
Visual grid setups
Three types of grid depth definitions
Inversion from profile or gridded data
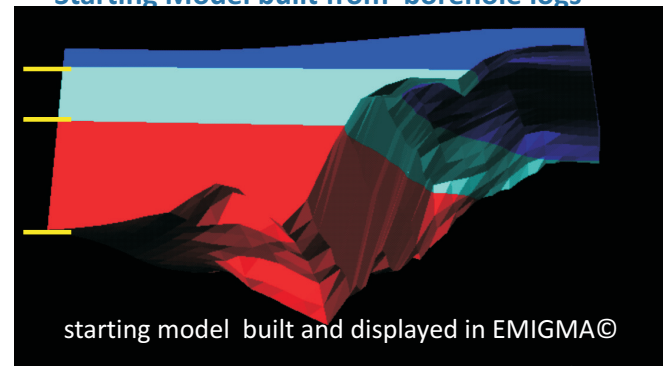3D Extended Euler Solutions with Post-Processing

**NEW !
Fast Compiler 3D Inversion**

Processing, Imaging & Interpretation Suite
Exploration, Environmental, Geotechnical, Delineation, UXO