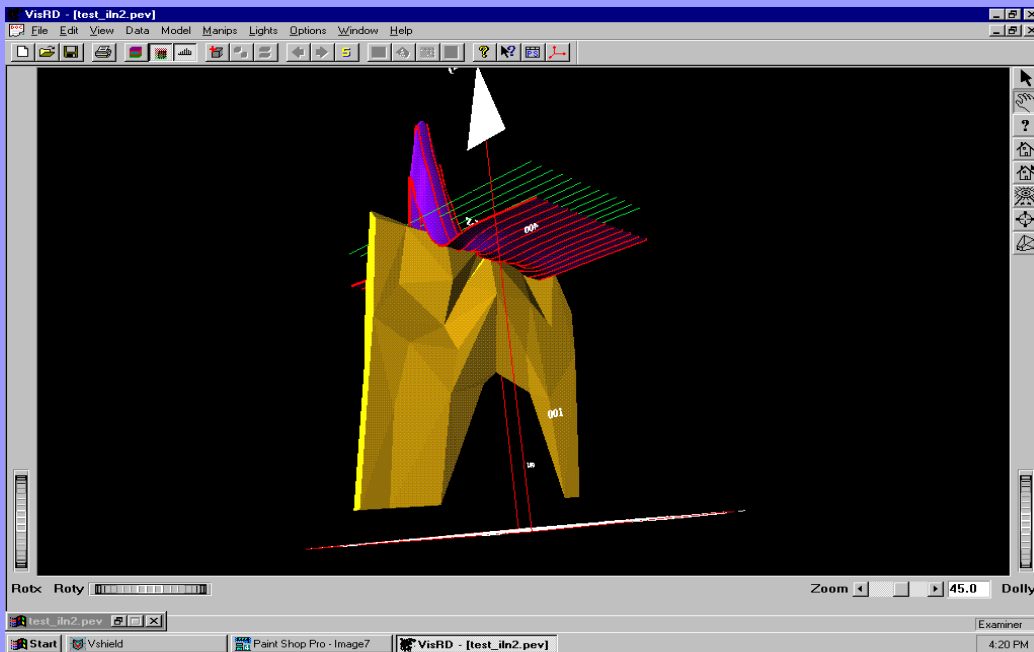


GEOTUTOR

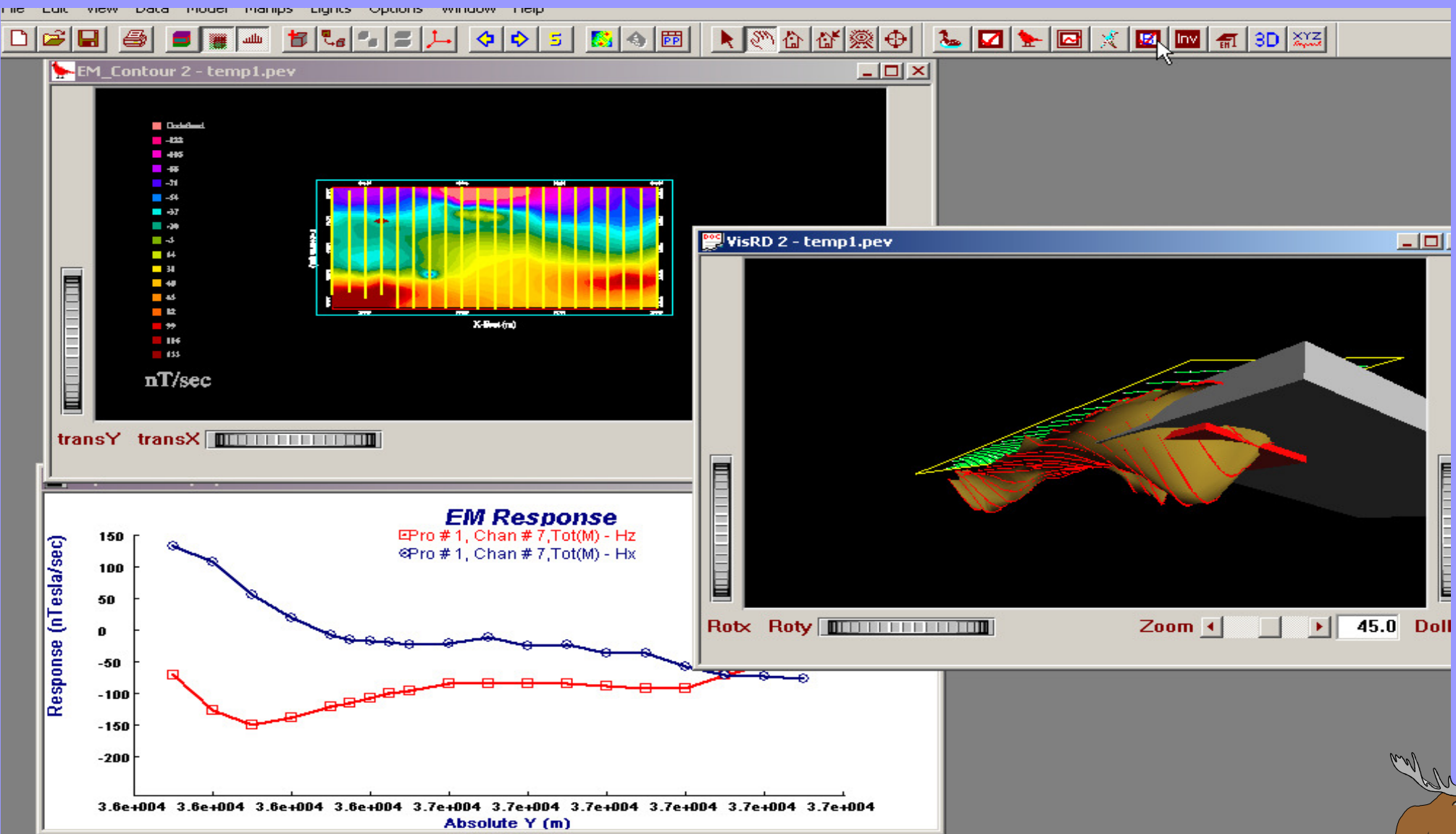
**Modelling, Survey Design and
Educational Software
for Geophysics**



PetRos EiKon Inc.



Understanding Geophysical Applications



Modelling and Inversion



Interpretation of Geophysical Data



Applications of GeoTutor

Mining , Oil& Gas, Environmental, Geotechnical

- ↔ ***Professional self-instruction***
- ↔ ***Survey design***
- ↔ ***In-class instruction***
- ↔ ***Laboratory courses***

- ✓ understand geophysical data systems
- ✓ geological responses
- ✓ geotechnical responses
- ✓ survey design

EM
EM
AG
EM
SAMT
RESISTIVITY
T
DREHOLE
IRFACE
RBORNE
ROSSHOLE

Interpretation of Geophysical Data



GeoTutor training tools

- ◆ Tutor Wizard:
 - *Step by step system configuration*

- ◆ GeoTutor V
 - *Easy-to-use integrated environment*
 - *modelling,*
 - *inversion,*
 - *visualization*
 - *data evaluation*
 - *data plotting*





Geotutor Survey Capabilities

- ◆ Data Types for Modeling
 - ▶ *EM, Resistivity, IP, Magnetics, MT, CSAMT*
 - ▶ *Gravity now available*

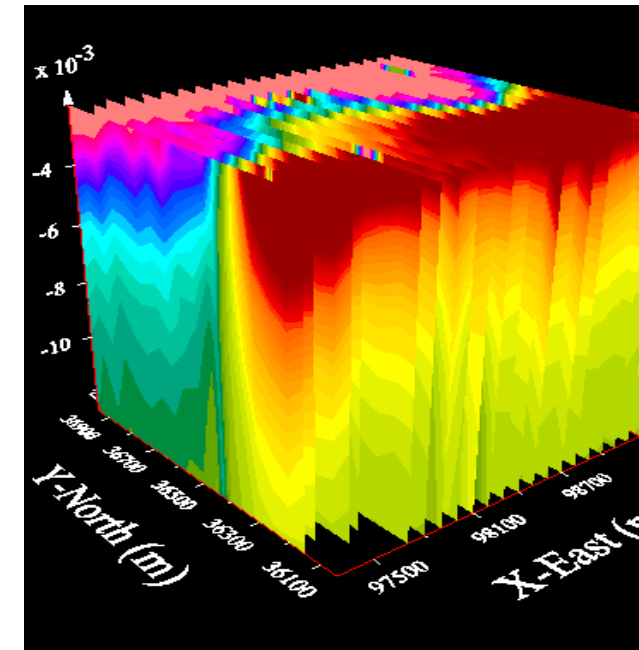
- ◆ Survey Styles
 - ▶ *surface*
 - ▶ *airborne*
 - ▶ *surface to borehole*
 - ▶ *borehole to borehole*

* not all combinations available



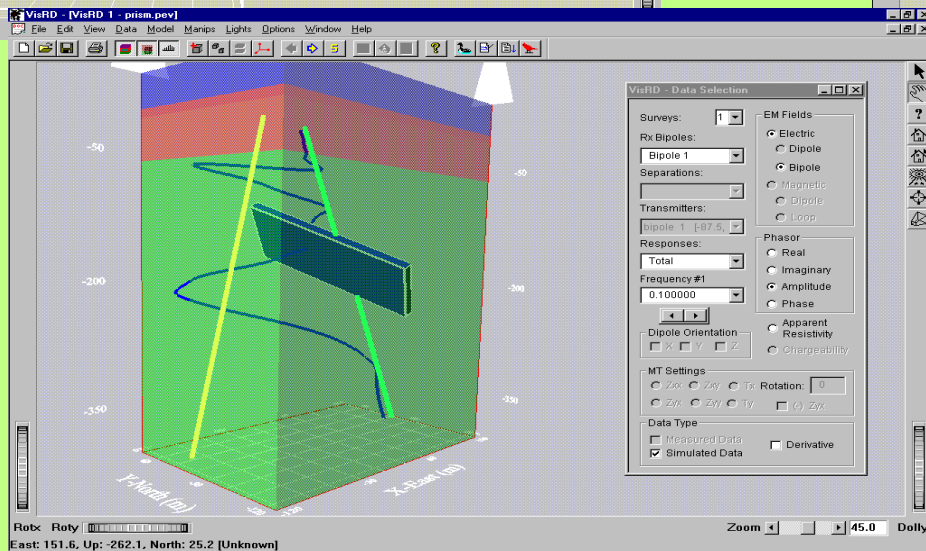
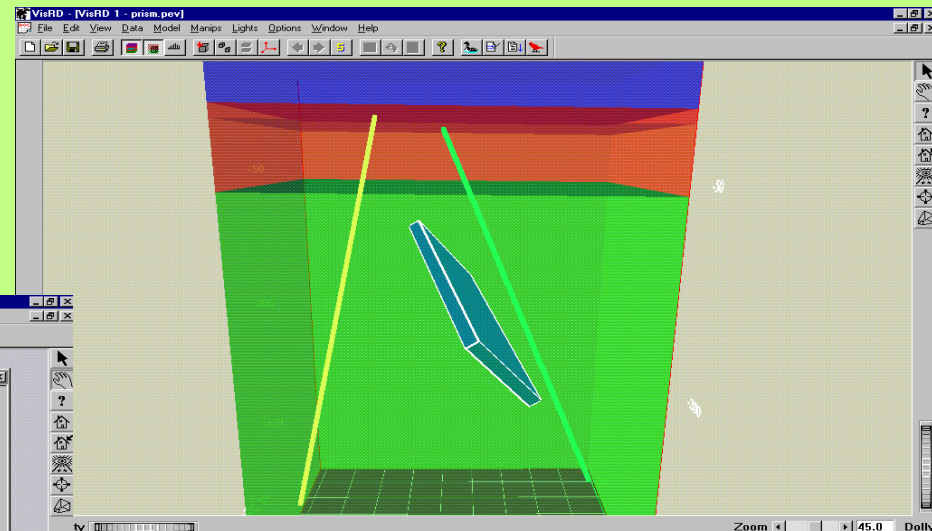
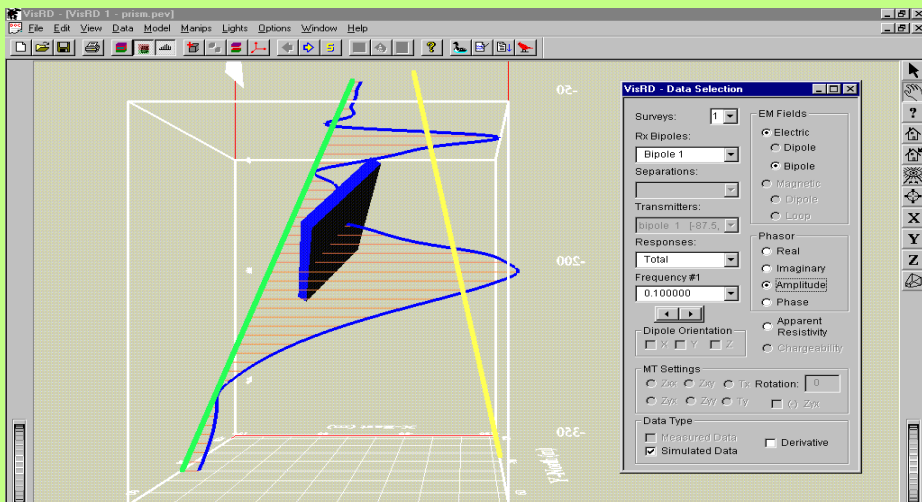
GeoTutor Capabilities

- ▲ 3D Forward Modelling – *Magnetics, Gravity, EM, Resistivity, CSAMT, MT*
- ▲ 3D Visualization
- ▲ 3D Model Building
- ▲ 3D Magnetic Inversion
- ▲ 1D, 2D and 3D Data Displays
- ▲ 1D FEM Inversion
- ▲ Contouring



Model Building and Simulation

View survey, Build models and analyse data in 3D

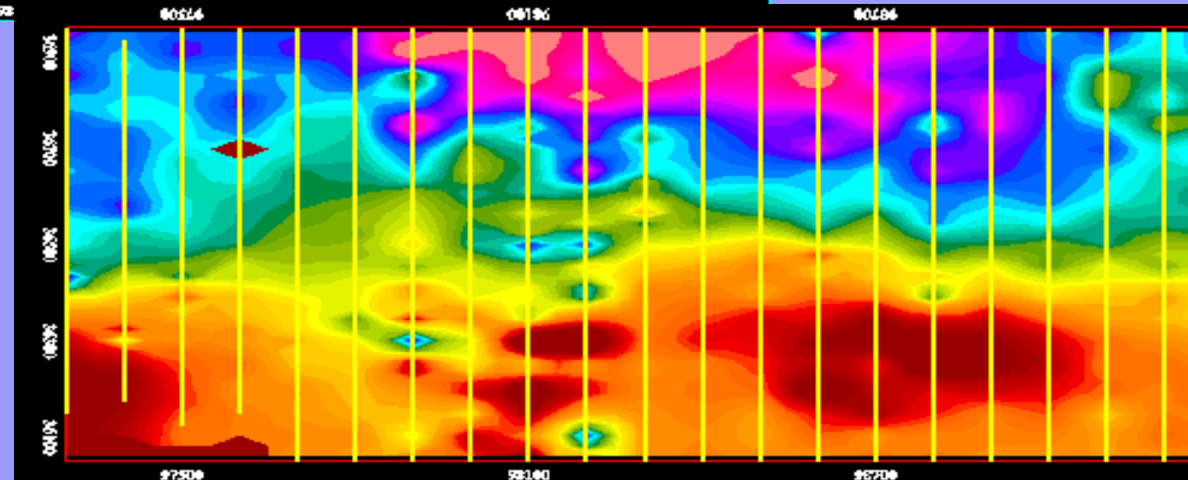
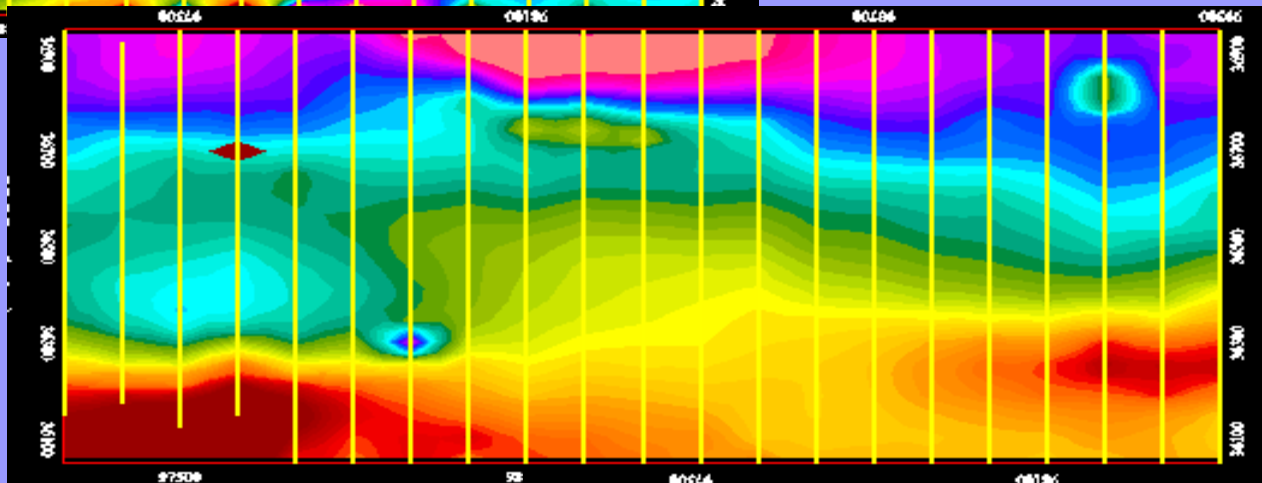
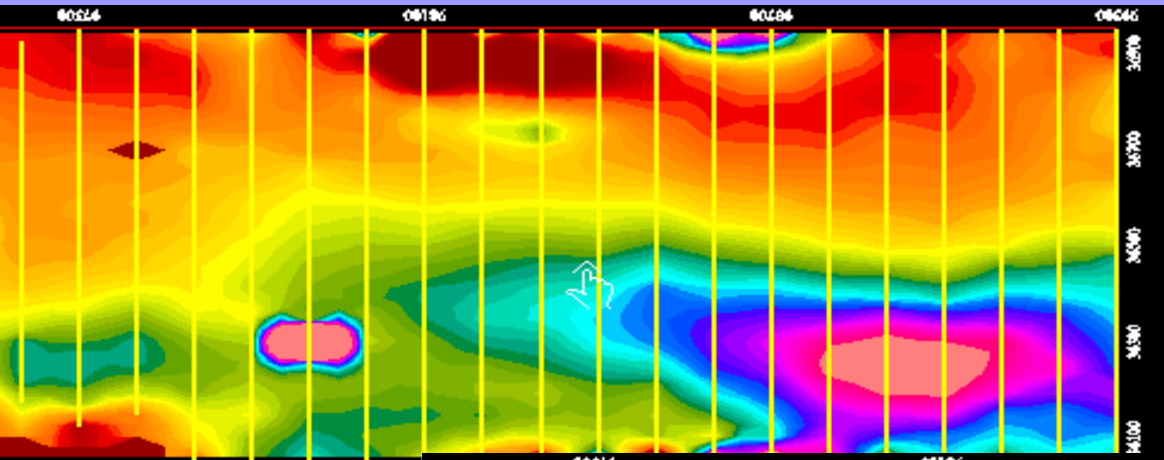


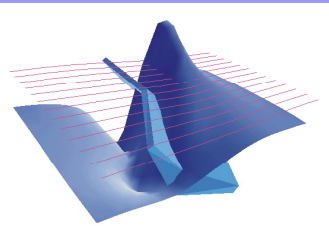
Quasi Animation

**Early-Time
TEM data**

**Mid-Time
TEM data**

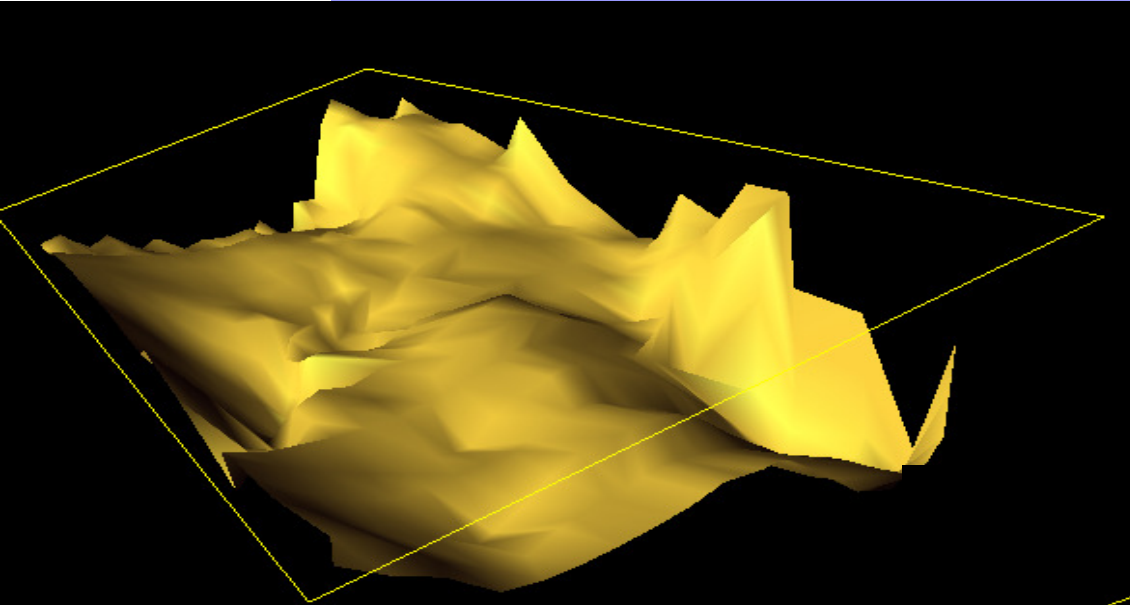
**Late-Time
TEM data**



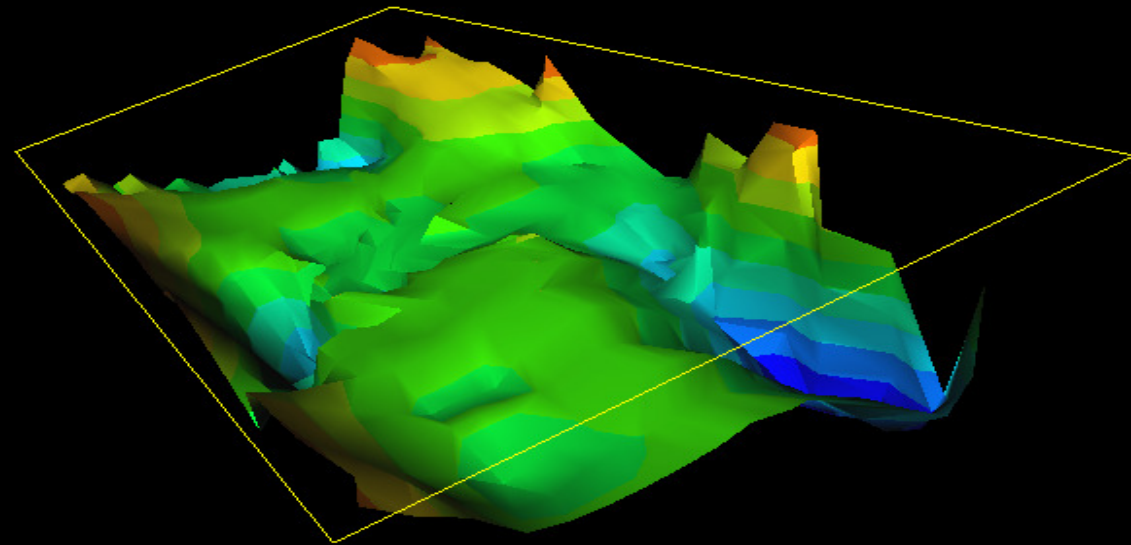


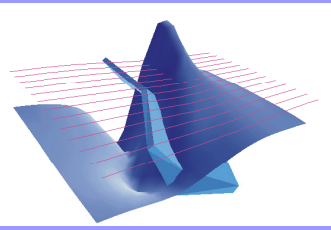
Surface representation of data allows for a spatial display of anomalies

Data Surface



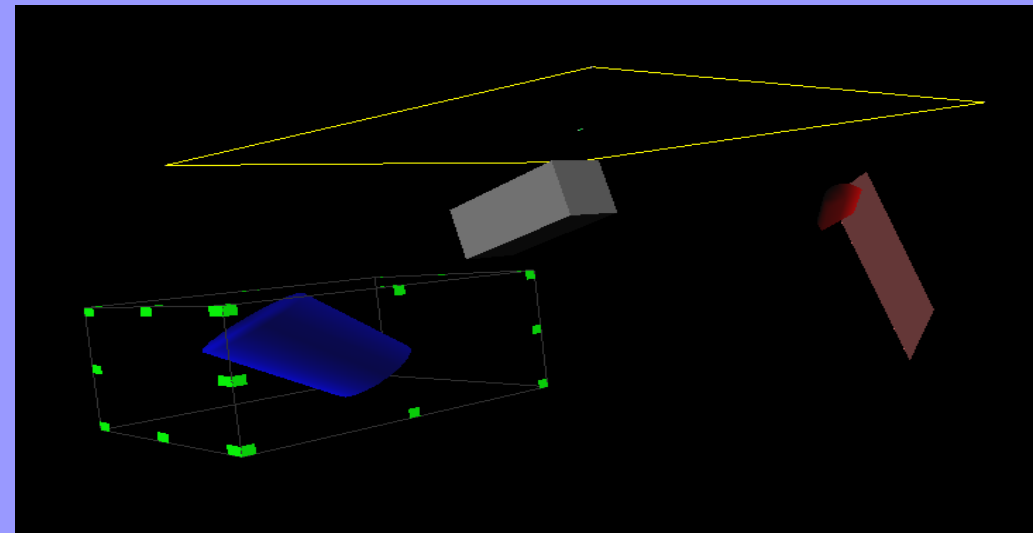
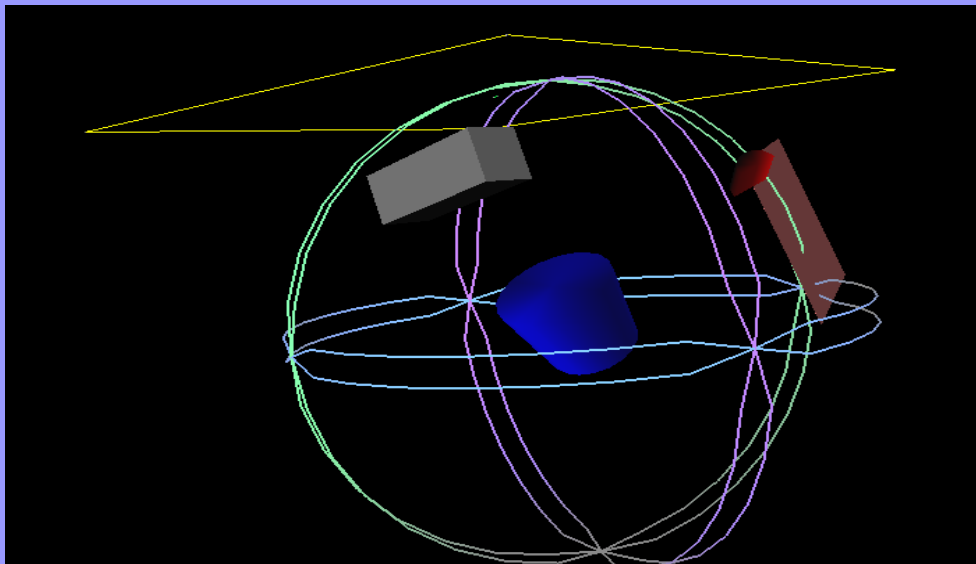
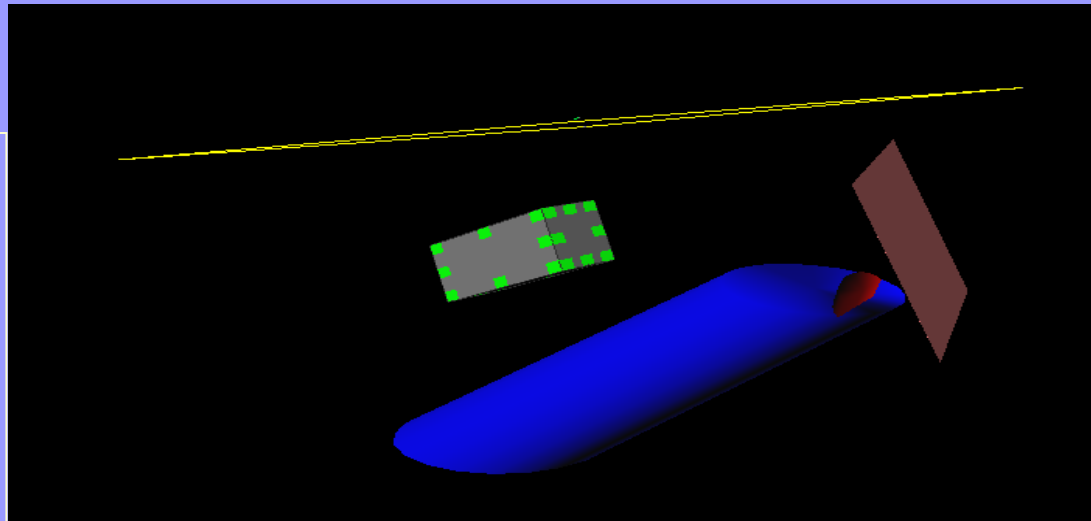
**Contoured
Data Surface**





3D Visual Model Building

- + primitives
- Prisms
- Polyhedras
- Thin-Sheets
- spheres





Extensive 3D Modelling Capabilities

6 algorithms

4 model primitives

Resistivity/Conductivity

Electrical Permittivity

Magnetic Susceptibility

Density

Cole-Cole

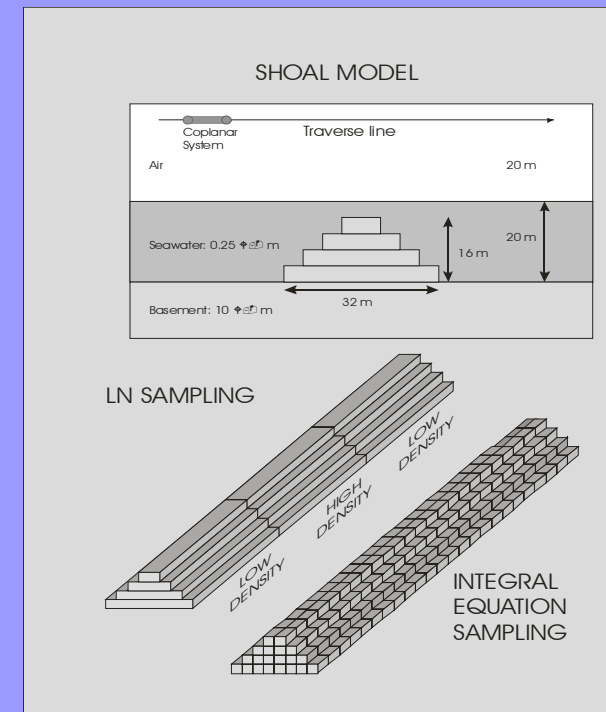
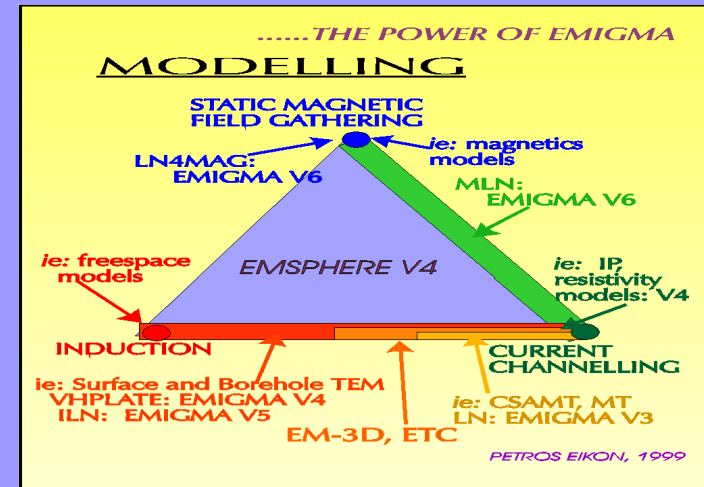
Permanent Magnetization

Static (DC)

Time Domain

Frequency Domain

Flexible and
Easy-to-Use Grids





Geotutor Training Tools

- ❖ Manual in Text Form
 - *describes all the basic concepts*
 - *technical references*
- ❖ Movie Tutorials
- ❖ Extensive examples
- ❖ Tutor Wizard
- ❖ Tutorials already in powerpoint format

- ❖ Rapid Support - e-mail , online support