



2D Resistivity Inversion Software



# **Features:**

- 2D resistivity and IP inversion software.
- 2D ERT (electrical resistivity tomography) between two or more boreholes.
- Survey planner with graphical model input, forward modelling and virtual survey with actual command file.
- Time Lapse option for resistivity monitoring from the surface and between bore holes.
- Data editing for detecting and removing erroneous data points.
- High definition report quality plat style printout.
- Topographic correction and print-out of resistivity section with topographical features.

- Finite difference and finite element modelling.
- No software limit on number of data or number of electrodes.
- No limit on array type or electrode location.
- User friendly Windows GUI.
- Fast graphics Windows 32-bit program.
- A priori information input.
- Real time scrolling through all iterations using the mouse wheel, creates "movie like" animation.
- Seamless operation with AGI resistivity instruments.
- Removable contour curves and automatic blanking.
- Windows true type font and true 24-bit color.

# **2D Resistivity Inversion**

Reads Sting data (and other instrument data formats) and produces a default setting inversion, valid in most cases, after only a few clicks. For advanced processing there are a number of settings for full user control of the inversion process. Report ready high definition graphic output in the form of engineering plate style drawing with title block.

#### 2D Electrical Resisistivity Tomography (ERT)

The software automatically detects bore hole data set for immediate ERT processing. There is an editor for "bad" electrode and "bad" data removal. From iteration to iteration the data misfit is displayed in a scatter plot. There is also a data cross plot (raw versus inverted apparent resistivity data) available as well as a diagram showing the convergence curve.

#### Time Lapse Monitoring

The optional Time Lapse function is used for any monitoring situation. It could for example be used to detect leakage at a landfill site. In such a case, the resistivity image is first recorded as "background" (before any leakage). After the initial "background" survey, the survey is repeated at regular intervals in the same way (electrodes in the same place using the same array type, etc.) so that any change in the ground can be detected. The time lapse function uses the inverted background section when inverting the "new" section and the result is presented as the difference between the two sections.

# Survey Planner

The survey planner is used for feasability studies of resistivity imaging projects. First load a command file, then enter the expected geological features with their expected resistivities in a graphical input interface. Then run the simulation using the actual command file and the software will perform a virtual survey over the theoretical model. The rusult of the virtual survey is then inverted and the result can be compared to the original model within seconds.

# **Topography Correction**

In case of terrain relief it may be neccessary to include topography correction in the inversion process. Data with terrain elevation is read from a "terrain file " and the software will automatically perform an inversion using a finite element model.







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