



3D Resistivity Inversion Software



Features:

- 3D resistivity forward modeling and inversion.
- · Surface resistivity imaging and cross borehole resistivity tomography.
- Automatic noisy data rejection.
- 3D data visualization and user interaction such as pan, zoom and rotation.
- · Volume rendering with user-friendly transparency control.
- Dynamic slices for interactive interpretation
- Multiple static slices of 3D volume.
- Unique data scatter plot showing electrode locations and data distribution.
- Crossplot showing convergence of inversion process.

- 3D survey planner for numerical simulation.
- Bad electrode recognition and removal.
- Saving images in one of bitmap, JPEG, PNG, TIFF, PostScript formats.
- Utility for extraction of 2D data sets from a 3D data set for 2D inversion.
- · Seamless operation with AGI resistivity instruments.
- No software limit on number of data or number of electrodes.
- No limit on array type or electrode location.
- Sandbox module for resistivity imaging in a confined space.
- 4D time lapse inversion module.
- Long electrode module to handle line sources.

Electrode location and apparent resistivity scatter plot

Initially apparent resistivity is displayed in a scatter plot. The electrode location is displayed to the left. The electrode "structure" can be grabbed by the mouse and moved so that electrodes which are hidden behind closer electrodes can be seen.





Apparent resistivity crossplot

When the inversion process is started, the resistivity volume is displayed to the right and an apparent resistivity crossplot is displayed to the left. The crossplot shows the calculated apparent resistivity versus the measured apparent resistivity. As the inversion procedure progresses, the data points will move towards a 45 degree line, indicating that the calculated apparent resistivities approaches the value of the measured apparent resistivities, i.e. showing the convergence of the inversion process.



Slices of 3D inverted resistivity image The inverted resistivity volume can be "sliced" in any direction and viewed from any angle.





NO.	Level	Line	Color Table	Upacity	-
1	1.206	2		0.00	
2	1.454	÷		0.00	
3	1.754	<u>.</u>	-	0.00	
4	2.115	8		0.00	
5	2.550	2		0.00	
6	3.075	<u>.</u>		0.00	
7	3.709			0.00	
8	4.472			0.00	
9	5.393	-	-	1.00	Insert
10	6.503	-	-	1.00	
11	7.843	÷	-	1.00	Delete
12	9.457			1.00	
13	11.405	2	-	1.00	
14	13.753	<u>.</u>	-	1.00	Load
15	16.585	-	-	1.00	
16	20.000			1.00	Save

Color palette

The user have full control of color and color levels. A specific color scale can be saved as an .lvl file and later used for other survey presentations.

Transparency

Certain colors can be made more or less transparent, making it possible to "look into the resistivity volume".



3D Inverted Resistivity Image



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