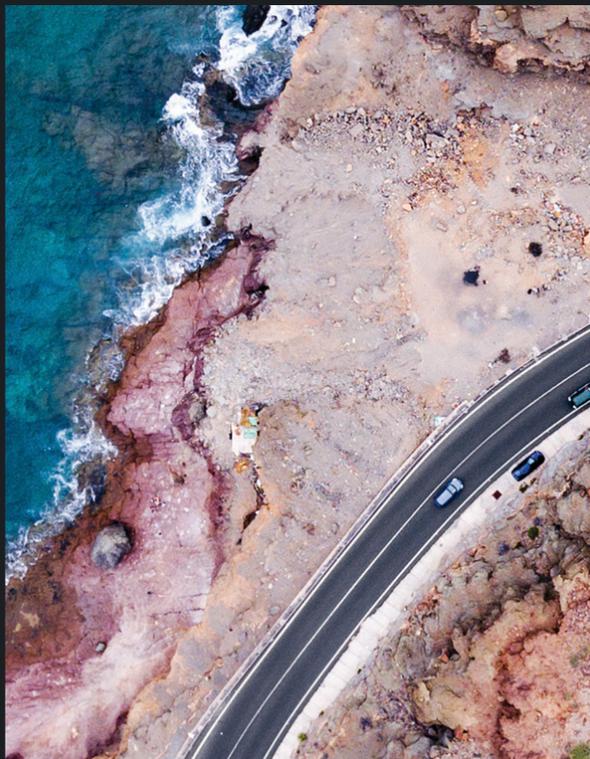# AGS WORKBENCH | EM & ERT/IP software

AGS Workbench is a purpose built software package for processing, inversion, and visualisation of electromagnetic (EM), electrical resistivity tomography (ERT), and induced polarization (IP) geophysical data. With extensive inversion control and visualisation capabilities, AGS Workbench provides an industry-leading, proven workflow from raw data to final visualization and interpretation of electrical and electromagnetic inversion models. Compare results to boreholes, geophysical logs and other EM/ERT data to make more informed subsurface decisions.

Powered by the fast, robust AarhusInv inversion code, tightly integrated with a geographic information system (GIS) interface, and with dedicated extensions for various geophysical data types, AGS Workbench is an industry-proven solution that saves time for interpretation.

AGS ✦ Aarhus GeoSoftware

seequent.com | aarhusgeosoftware.dk

AGS WORKBENCH | EM & ERT/IP software

KEY FEATURES

- Import, process and invert data from airborne and ground based geophysical EM and ERT systems
- Fully developed processing tools and filters
- Import of digital elevation model (DEM) maps and use elevation in the inversion
- Import borehole lithology and geophysical logs
- Integrated GIS interface
- Visualise data on GIS interface, themes, profiles, 3D viewer, and PDF reports
- Quality control (QC) visualization tool for evaluation of inversion results
- Laterally Constrained Inversion (LCI). Spatially Constrained Inversion (SCI), Cole-Cole, Constant Phase Angle (CPA), and Maximum Phase Angle (MPA) inversion with AarhusInv inversion code
- Aarhus Batch Inversion uses servers for inversion jobs

EXTENSIONS

- **Essentials |** Basic extension for AGS Workbench with GIS interface, which includes borehole and geophysical log import, visualization, QC, 3D viewer, PDF report tool, and SCI and visalization of AGS SPIA transient electromagnetic (TEM) data
- **Airborne TEM |** Support several airborne TEM systems, e.g. SkyTEM, VTEM, AEROTEM, SPECTRUM, TEMPEST etc
- **Airborne HEM |** Supports all coil configurations for airborne HEM systems such as the Resolve system
- **GCM |** Supports all coil configurations for GCM instruments such as DUALEM, GEM2, CMD Explorer and EM31
- **DC/IP |** Fully developed processing tool with1D/2D ERT/IP Cole-Cole, CPA, and MPA inversion methods
- **Groundbased TEM |** For towed TEM systems such as the tTEM system
- **Streamed ERT |** For waterborne ERT surveys includes water resistivity and depth as inversion parameters

VISUALISATION AND INTERPRETATION

Visualisation, QC evaluation, and geological interpretation of inversion results is done using the GIS interface and is integrated with the processing tool, cross sections, PDF report tool, and 3D viewer with thresholding, volume cutting, and video recorder.

GIS THEMES

- Geophysical theme maps, e.g. mean resistivity, elevation of geological interfaces, etc
- Gridding themes using Kriging or inverse distance inter polation, including semi-variogram analysis
- Visualise theme maps as colorized points or grid images
- Quality check inversion results with model quality tool

CROSS SECTIONS

- Create sections by drawing directly in the GIS-map or based on survey flight lines
- Resistivity models displayed as bars or interpolated filled sections, combined with depth of investigation (DOI) information
- Borehole lithology as bars and geophysical logs for easy correlation
- Layer interfaces digitised for geological interpretation
- Extended label options for resistivity bars and boreholes, e.g. projection distances, lithology etc

ADALTA
SOFTWARE PER L'INNOVAZIONE

Rivenditore Ufficiale per l'Italia

email: commerciale@adalta.it
tel: 0575.333297

www.adalta.it/seequent