



W25: Inversion of Time Domain EM Data with Geosoft's VOXI Earth Modelling

Coordinator(s) Scott Moore

Date(s) Fri, Sep 06

Time 08:45 - 16:45

Location Crown Perth

Summary Join Geosoft VOXI Earth Modelling experts at this hands-on workshop. Participants will be running their own meaningful VOXI TDEM inversions, with the ability to apply them immediately to their own projects and will be given a 14-day evaluation subscription of VOXI TDEM.

Schedule*

Session 1

Introducing TEM Modelling and Inversion

- Theory: A brief introduction to current distributions, smoke rings, time constants, depth of investigation.
- Practical: How VOXI-TDEM works, what it does, and how to use it, benchmarks.

Session 2

- Practical concerns: waveforms, time windows, Noise, system comparisons, mesh design.
- Limitations and expectations on VOXI-TDEM: 1D, Quasi-1D, 2.5D, and 3D forward modelling and inversion comparison
- Hands on

Session 3

Exploring Inversion Solution Space

- Non-uniqueness and implications: Demonstrating the limitations on geophysical methods inherent in the non-uniqueness of their inverse problems with particular attention to how to map out inversion depth resolution.
- Hands on

Improving Inversion with Constraints

- a) VOXI-TDEM constraints: Demonstrating geological constraints and drillhole information and a demonstration of their effect on making an inversion result more geologically feasible.
- b) Hands on

Session 4

Cooperative inversion with other geophysical data sources

- Combining multiple datasets in an inversion: Inverting mag/grav/DC/IP/FEM data with VOXI and combining with TEM inversion to produce a unified exploration model.

Terms and conditions

* Schedule subject to change

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