

Introduction

This brochure is a brief overview of Interpex' geophysical processing, presentation, and interpretation software, organized by method. For most methods, modeling packages offer forward and/or inverse modeling to match synthetic responses to field data. All feature a menu system and interactive graphics to allow the user to visualize the data and the results during the interpretation process. The required operating system is Windows on IBM PC and compatible computers.

1-D Electrical & Electromagnetic Modeling

IX1D v 2 and v 3 feature interactive forward and inverse modeling of sounding data. Model construction is done by dragging the layered model representation on screen. IX1D v 2 and v 3 also offer a smooth model solution. Complete control of the inversion process is allowed by fixing parameters to constant values. IX1D v 3 also allows constraint to a user-defined range of values.

IX1D v3 (Windows)

IX1D v 3 replaces many of our DOS software packages, including EMIX 34, EMIX 34 Plus, EMIX MM, EMIXMM Plus, EMIX MT, RESIX, RESIX Plus, RESIX IP, TEMIX and TEMIX XL. A lighter version, **IX1D v 2 (Shareware)**, replaces EMIX 34, EMIX MM EMIX MT, RESIX, RESIX Plus and RESIX IP.

Frequency ElectroMagnetics:

IX1D v 3 is designed for the interpretation of EM conductivity data acquired with the Geonics Ltd. EM-31, -34 & -38 or similar instruments. Forward and Inverse modeling on individual soundings yields 1D models displayed in profile form.

IX1D v 3 uses forward and inverse modeling to interpret EM data acquired with instruments such as the SCINTREX EM-4 GENIE/HLEM, Geophex GEM-2 or APEX MAX-MIN systems in terms of 1-D layered earth models.

IXVLF v1 (Shareware)

IXVLF is a graphic analysis tool for VLF data. Options include display of field data profiles and contour maps. Data can be filtered using either the FRASER or HJELT filters.

MagnetoTellurics:

IX1D v 2 or v 3 is used for 1-D forward and inverse modeling of MT, AMT and CSAMT data taken in the **far zone**. Data are apparent resistivities with or without impedance phase.

Transient ElectroMagnetics:

IX1D v 3 imports electromagnetic sounding data taken with the transient electromagnetic (TEM) method from most commercially available TEM systems using the Universal

Sounding Format (USF) . Forward and inverse modeling in terms of 1-D models is used to interpret sounding curves. Smooth model estimation, parameter fixing and equivalence analysis are also offered.

1-D DC Resistivity and Induced Polarization:

IX1D v 2 and v 3 is designed for the interpretation of DC Resistivity with or without Induced Polarization (IP) data

Seismic Refraction:

IXSeg2Segy (Shareware)

This is a seismic shot record viewing, processing and format conversion utility. It reads SEG-2, SEG-Y and most historic SEG-1 formats and writes SEG-2 and SEG-Y. It provides for trace editing, filtering, processing, display, break picking and simple reflection and refraction interpretation.

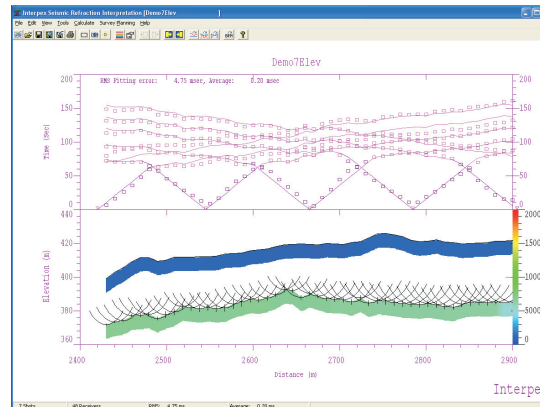
IXRefrax (Windows)

IXRefrax contains all the necessary tools to organize, process and interpret your refraction data using Palmer's Generalized Reciprocal Method (GRM) in a single integrated package. Data can be imported as raw seismic shot records or as tabulated travel time curves. A very fast method of forward and inverse modeling for multiple layers is used to derive a best-fit 2-D model. Ray-tracing shows the portions of the subsurface which influence the arrival times.

This best-fit model is used to assign arrivals to layers automatically with full manual override. Velocity analysis segments are displayed with full capability to see the raw data from which they came and to adjust first break picks, reciprocal times and arrival assignments.

With virtually no limit on the number or size of shots or spreads, an entire line of seismic refraction line can be processed and interpreted in a fraction of the time it takes with more labor intensive packages.

Replaces **FIRSTPIX/GREMIX (DOS)** packages



Magnetics and Gravity:

IX2D-GM is used to create 2, 2.5, and 2.75-D earth models of magnetic & gravity data. Models consist of free form bodies & layers constructed interactively on the screen. The program does forward calculations in real time and the response changes can be tracked while modifying the bodies. Inversion allows for automatic changes to the bodies to produce the closest match of the synthetic data to the field data.

IX2D-GM replaces MAGIX for 2.5-D forward/inverse modeling of gravity and magnetics data using polygon-based models of finite extent. With a Windows interface, control over body and vertex placement, locking and fix/free status is much more user-friendly, as is the movement of bodies and (groups of) vertices which change color when they become illegal and bounce back to the last legal body when released. IX2D-GM imports MAGIX MGX files as well as ASCII files of various kinds.

Shareware is in **Windows**, protected by user name and code. All other software is protected by USB key.

