

# Induced Polarization

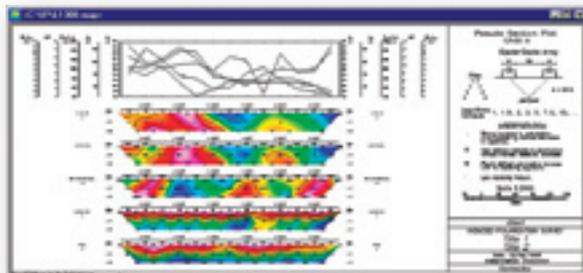
montaj Extension developed by Geosoft

The montaj™ Induced Polarization extension performs a variety of tasks on your IP data including import, quality control, processing, gridding, and plotting. Geosoft's Induced Polarization is the most widely used commercial Time Domain/Frequency IP processing software in the Mineral Exploration industry. The extension is designed for both contractors and in-house geophysicists.

A common database and processing environment for both time domain and frequency domain surveys reduces the time to learn and produce results.

Visual quality control functions enable interactive review and editing of raw data values and simplify the QA/QC of multichannel IP surveys.

The extension supports time-domain or frequency domain data formats from all the leading IP system manufacturers including Zonge, Scintrex, Phoenix and Iris. The ability to manually input non-digital historical data enables legacy exploration data to be digitized, reprocessed and compared with new exploration data.



## Use montaj Induced Polarization to:

- Import, perform basic quality control, process, visualize and present data from both time and frequency domain surveys,
- Import time-domain or frequency domain data in Zonge, Iris, Scintrex, Phoenix and Geosoft formats,
- Process data from dipole-dipole, pole-dipole, pole-pole, or gradient surveys,
- Automatically calculate apparent resistivity, metal factor, IP, Self Potential and individual time slices,
- Evaluate duplicate samples with a unique quality control tool,
- Filter your data using standard pant-leg filters,
- Manipulate time slices or frequency data,
- Display IP decay curve with access to all slices or frequencies,
- Create single-plot presentation of up to 5 sections using IP, Resistivity, Metal Factor, Self Potential and any selected slice from a sample decay curve, for example,
- Produce pseudo-section presentations, including stacked sections, and instantly convert your stacked sections to display in three dimensions,
- Add topographic information and plotting topography-adjusted pseudosections (not a modelled correction). The topographic elevations are displayed as offsets next to the survey readings,
- Adding topographical information does not affect any of the data in the IP database or any derived calculations — the elevations are for display only,
- Integrate with geochemistry and other information via Oasis montaj,
- Quickly integrate of IP data with third-party modeling results.

## Pseudo-Section Functions

The montaj Induced Polarization extension provides the ability to plot and create 3D views of your stacked pseudo-sections. Creating 3D views is a one step process which enables you to view the individual sections as they are oriented in real (3D) space.

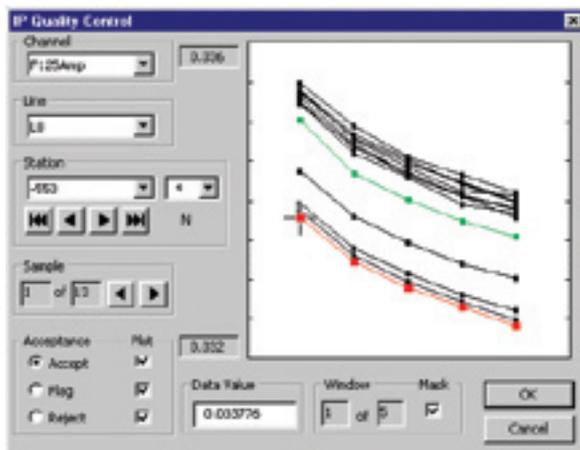
The Pseudo-section functions are designed to plot:

- Pseudo-section maps (multiple channels of the same line),
- One or more pseudo-section maps,
- Values in pseudosection format,
- Stacked pseudo-section maps (multiple lines of the same channel).

## IP Quality Control Function for Evaluating Duplicate Samples

The IP Quality Control function provides an interface that you can use to perform quality control operations on "raw" samples in the current IP database. With this tool you can evaluate duplicate samples by navigating through the data by station and line number.

The data are not changed during the QC process. Instead, a QC channel uses a number that indicates which data points to include when plotting, exporting, and averaging duplicate samples. Quality control can be performed on both single value and array channels.



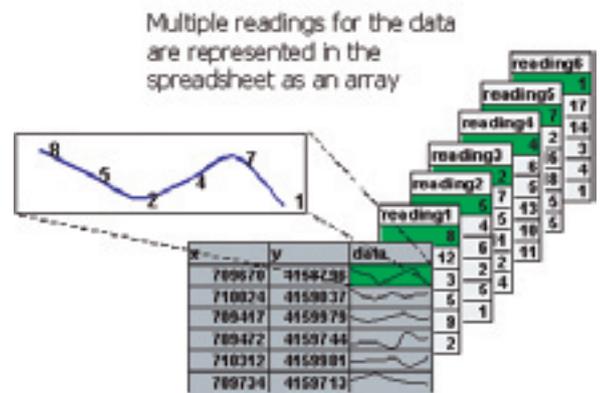
## How Interactive Induced Polarization Works

The following paragraphs provide insight into how some of the unique interface and functions in the Induced Polarization (IP) extension display IP data for you to visualize and process must be re-flown.

## Array Channels

Array channels are a unique element of the Induced Polarization extension that enable you to store many time-windowed or frequency measurements in a single cell of the database.

The spreadsheet represents these values as a profile line in an array channel.



Array channels present the information in each cell in the spreadsheet column as a curve instead of number. The reason for this is that an array channel contains more than one channel or column of data. In an IP time domain survey for example, a curve in a spreadsheet cell of an array channel would represent a decay curve for a single survey location.

By representing data in an array channel, all the readings for a single location can be put into one column of the spreadsheet instead of having several channels for the multiple amplitude readings at each survey location.

The numerical data stored in an array channel may be displayed as sub-channels. For example, if the decay curve contains 256 time slices, you have the option of looking at any specific slice in its own sub-channel.

\*The montaj Induced Polarization extension requires Geosoft's Oasis montaj.