



ATLAS

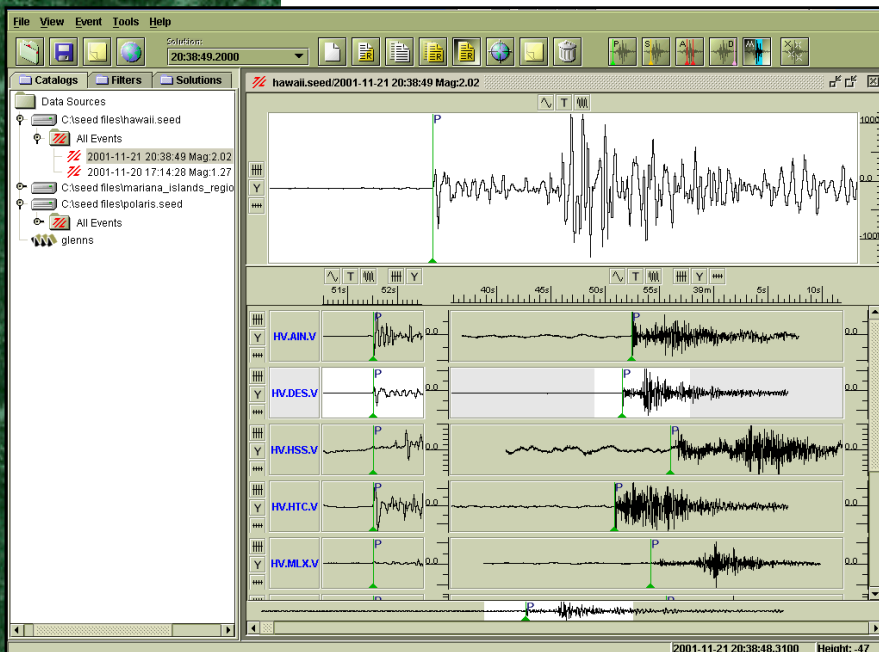
Earthquake Data Analysis Software

Atlas

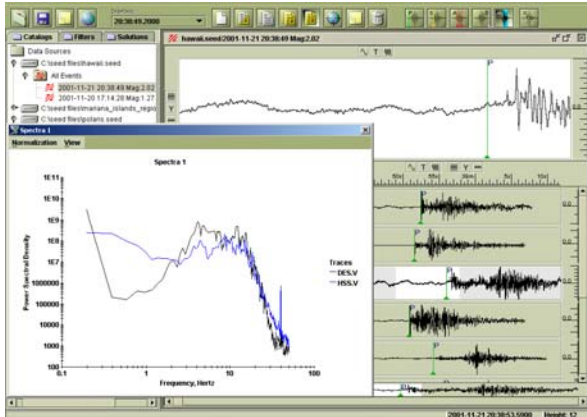
is a second generation software package for seismic data analysis. It provides a graphical data interface for scientists to view, edit, locate and relocate events recorded by a seismic network or array. The ATLAS software package provides an intuitive graphical environment for the analysis and reduction of network data. Multiple traces can be loaded, enabling the user to quickly and efficiently navigate through the network data, marking phases, including or excluding traces based on the quality of the data.

Benefits

- **Faster analysis of data, especially aftershock and volcano studies**
- **Allows any phases to be picked and identified for more accurate analysis**
- **Spectrum analysis of data allowing fast source determination**
- **Compatible data format for faster integration**
- **reliable data storage using Oracle database**



Features



Power Spectra

ATLAS allows power spectra of individual waveforms to be calculated and displayed. The user can select the complete time series or a partial segment of data to analyse. Spectrums can either be displayed in individual windows or they can be stacked in the same window.

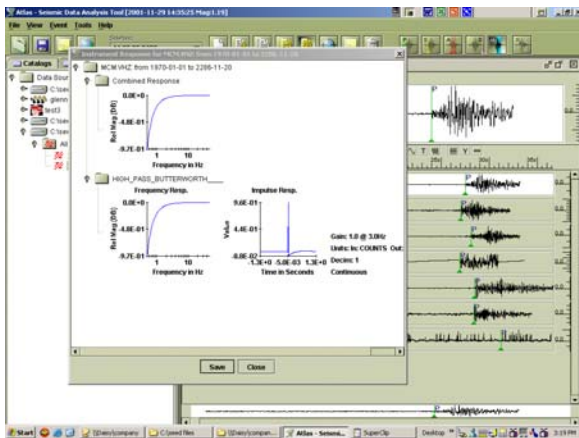
Spectrum analysis is commonly used for determining energy sources.



Integrated Mapping

Having chosen the appropriate phase picks, seismologists have the option of either displaying the resulting epicentre location and station residual on an integrated mapping system or in a lat/long text output format (i.e. a standard Hypoinverse output file).

Atlas' integrated mapping system comes with a world base map with the ability to incorporate detailed maps of local interest. A graphical user interface allows bitmaps or vector files to be tied into the existing base map.



Instrument Response

Atlas maintains a history of instrument response for each channel and provides methods for entering and updating the response. Whenever a trace is loaded, Atlas finds the most recent or most suitable channel response and attaches it to the trace. The instrument response can then be used for instrument deconvolution, instrument simulation, and for determining the ground motion measured when converting among motion types—displacement, velocity, and acceleration.