

## PARALLEL GEOSCIENCE

- **SPW 4.1** is our latest release of the SPW seismic processing system. We have improved and simplified the user interface and introduced many new capabilities. New productivity enhancements include a batch job queue/scheduler, a client/server configuration utilizing inexpensive high performance multi-cpu workstations, and implementing template flows for processing of a large number of input files. SPW 4.1 is a native 64-bit processing system available on Windows 7 and Windows 10.
- » The SPW System SPW is a fully interactive 2-D and 3-D seismic data processing system based on our popular and innovative flowchart user interface. With processing capabilities ranging from reading field data to pre-stack migration; SPW provides the seismic processing tools to meet your needs. SPW is native 64-bit and optimized for multi-core, multi-cpu systems allowing the efficient rapid processing of large seismic data volumes. The SPW design allows for use of cost effective laptop, desktop, and multi-processor workstation systems. SPW is a proven, field tested, reliable seismic data processing system with an easy to use interface.
- » SPW Field QC The SPW system is capable of reading data directly from most modern recording systems in real time and processing the data as it is being recorded. Real time stacks may be displayed as well as QC attributes. Data may be analyzed as it is processed including automatic quantitative statistical editing of bad data and qualitative real time displays. Using various attributes allows for automatic audio and visual warnings when data does not comply with data quality specifications. Real time output to tape devices is also now included in the package. Both land and marine QC and processing is supported. Save time and money plus increase acquisition data quality with automated quantitative quality control in the field.
- » Bandwidth Extension and Spectral **Decomposition** - A set of fully parallelized spectral decomposition methods is available. The implemented transforms include: Wigner-Ville, Windowed Wigner-Ville, Cohen's Class, Windowed Fourier, Stockwell, Discrete Wavelet, Matching Pursuit, and Gabor. The frequency cubes and attributes resulting from these processes may be used for mapping variations in bed thickness, geologic discontinuities, and differentiation of fluids in the reservoir. Improved definition of the reservoir oil-water and oil-gas contacts enables more accurate volumetrics calculations. Several methods of bandwidth enhancement will expand the spectral data resolution thereby greatly improving the capability to correctly interpret detailed lithology.
- » Consulting/training/services With many years of experience in processing of both land and marine seismic data, PGC is able to provide customized processing services to fit almost every need. We have taught classes at universities, professional societies, and companies around the world. PGC has coauthored with Institut Francais du Petrole "Seismic Processing Tutorial" an e-book on USB published by the EAGE. We have consultants available to help companies resolve difficult seismic issues. Please contact us for competitive rates and custom solutions tailored to help solve your seismic data acquisition or processing problems.