

Priority Processing

Polarcus Geophysical Toolbox : Onboard Data Processing

Purpose

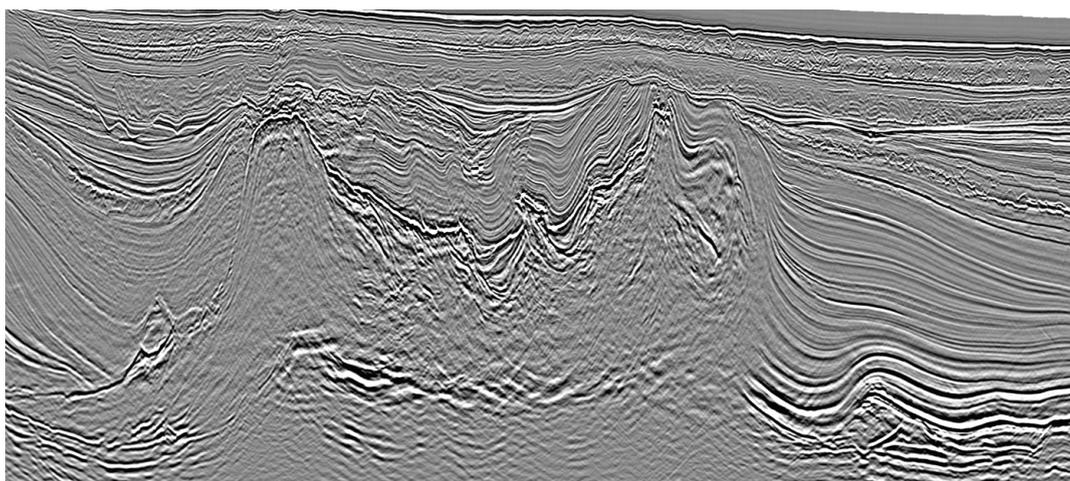
To remain in front of the ever increasing demand for efficient marine seismic exploration, Polarcus has equipped the fleet with cutting edge seismic data processing hardware and software. Each vessel is equipped with systems, provided and supported by our partners DownUnder GeoSolutions ("DUG"), which utilize the innovative computing power of Intel® Xeon® processors and Intel® Xeon Phi™ co-processors, providing compute power of around 100 Tflops. This onboard capacity, along with our expert field geophysicists, facilitates Priority Processing, an advanced onboard data processing service, which includes DUG Broad™ source and streamer de-ghosting, 3D demultiple and Isotropic Kirchhoff Pre-Stack Time Migration with RMO and time tomography.

Benefits

- Data processing quality control on the fly allowing quick testing of parameters
- Software compute modules designed to utilize multi-core Intel Phi co-processors
- Processing steps that used to require weeks to run onboard can be completed within days
- Ready to interpret data volume delivered straight from the vessel
- Core of the seamless RightFlow™ process which unites Pre-STM onboard to Pre-SDM onshore

Field Example

Below is an example line from a Priority Processing intermediate broadband Pre-STM volume produced on the vessel without post-migration processing applied. This is an impressive section across part of the Santos basin Brazil, showing the mobile salt layer with development of diapirs and mini-basins and more importantly perhaps, from the hydrocarbon perspective, is that this intermediate PSTM product is already showing sub-salt structure and lithology contrasts.



Impact on EHSQ

The service that we offer our clients means that they are able to use the data that we deliver straight from our vessel to accurately assess geological potential and can cut back on extremely expensive decision making time. For them to have a ready to interpret Priority Processing data volume whilst acquisition progresses means that the project becomes more focused, can be adapted to the data and brings optimized value for money.