COMPREHENSIVE BINNING & ATTRIBUTE ANALYSIS

Reflex provides comprehensive binning and attribute analysis of seismic and navigation data in marine, transition zone and land environments. Fast, flexible and easy to use, Reflex delivers the high data throughput to ensure optimal decision-making.

Reflex is tightly integrated with Orca and other ION applications to ensure ideal acquisition.

Streamlining data flow makes it simpler and faster to assess coverage while reducing error.

In addition, customers receive Concept Systems’ world-renowned 24-hour service and support.

BENEFITS

Reflex’s quick, complete assessments reduce turnaround time and improve seismic data quality through:

- Integration with Concept Systems’ Orca, Spectra and Gator real-time marine acquisition systems
- Fast and accurate infill decisions for all survey types
- Advanced reporting of fold and repeatability statistics per line or for a defined area
- Flexible multiple offset and azimuth configurations
- Clear visualization of data edits
- Integration of land, marine, OBC, and TZ survey data
- Importing, analyzing, and archiving attributes
- Data management to support multi-client operations

ORCA INTEGRATION

Reflex is fully integrated with Orca, which automatically creates and populates a Reflex database for each survey. A single shared database ensures consistency of online and offline coverage data. All coverage parameters are defined within the Orca survey configuration module. Users can define multiple custom offset groups, which are viewable concurrently both offline and online.

The system provides coverage information for individual source and streamer vessels and supports receiver binning for wide-azimuth towed streamer surveys (WATS).

As P1/90 files become available in Orca source and receiver positioning, information is automatically imported and sampled to the coverage database. Normally P1/90 files are available within 10 minutes of End Of Line (EOL) from the Orca Near Real Time P1/90 process.

Orca also maintains the definitive set of edits which are automatically applied to the coverage database at EOL and further updated as edits are modified. Reflex allows the user to spatially view the effect of edits on coverage data.

The Orca Optimiser uses the coverage database to bin P1/90 data created from user-defined tracks and predicted feather providing coverage analysis to enhance future acquisition.
**HIGH DATA THROUGHPUT**

Reflex provides high data throughput from UKOOA P1/90 or SPS. Lines are imported and sampled in a matter of seconds for immediate display in isolation, in a multi-line swathe or in the entire data set. In addition, all offset zones can be analysed simultaneously for offset distribution and/or attributes.

Reflex’s unique design allows lines of coverage or attributes to be removed from or added to an existing display. New data groups can also be easily incorporated as the survey progresses, eliminating detailed pre-survey database planning.

**BINNING TECHNIQUES**

Reflex’s open structure handles the most complicated bin expansion techniques and specifications. Source receiver offset-based binning ensures true compatibility with seismic processing, which is exportable in a wide variety of data sets.

Users can edit data before processing to prevent the binning of noisy traces or flag the “best” data for seismic processing.

Reflex performs converted wave binning to analyse CCP (Common Conversion Points) for 4C surveys instead of CMP (Common Mid Points).

**COMPREHENSIVE QC FACILITIES**

Full SPS data format QC assesses shot, relation and receiver files to aid and speed decision making. All significant activities are recorded for subsequent review.

Reflex analysis of navigation and seismic attributes identifies potential seismic processing problems. Automatically detecting missed coverage enables operators to make fast decisions about infill requirements.

**REMOTE ANALYSER**

Reflex’s Remote Analyser allows a remote user to interact with the data, rather than just view previously generated plots. For example, today’s production data can be sampled and compressed by the main system, sent via email, and analyzed using all the capabilities of the main system.

**DATA MERGE**

Since surveys can span streamer, OBC, TZ and land environments, data integration is a major concern. Reflex enables users to create a database for each area and sample the data through a common definition. Operators can view the entire prospect in one system and generate scaled maps for multi-client operations.