2D Seismic

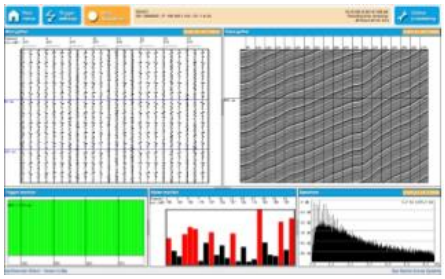
Multi-Trace 24-48 Channel Acquisition System

- Multi-Trace 24 acquisition module is a very high resolution, 24-bit delta-sigma, 24 channel seismic recorder, which can be interfaced to any suitable laptop or desktop computer, through an (100Mb/s) Ethernet connection
- The module features a programmable trigger. It can act as a master or a slave. The trigger pattern can be programmed freely.
- **Physical Specification:**
  - **Our standard configuration is winch mounted**

In this configuration the acquisition module is mounted inside a watertight, winch-mounted PELI case. Interfacing to the survey room is limited to the trigger line and the LAN connection, which also provides the PoE to the MultiTrace Acquisition module

GeoRecorder software can sample data in continuous mode at high sampling frequencies (up to 10 kHz). That is, there is no limitation in the record length and advanced tools for high resolution seismic recording.

- The Sync In- and Output provide the possibility to link two MultiTrace 24 units, to create a 48 channel multi channel acquisition system.



Online processing never affects the raw data and is for QC purposes only.

- User friendly web based interface
- Advanced QC tools
- Online processing: Basic processing tools (AGC, Filter, Debias, etc.)
- Multiple monitor support
- Proprietary recording format optimized for speed and disk space occupancy
- Extensive logging capabilities (raw inputs, events, alarms, notifications, etc)
- Recorded lines can be downloaded in SEG-Y or SEG-D standard formats.

All raw data files are recorded in proprietary binary format. The software can export data in standard SEG-Y and SEG-D formats. In addition, extensive logging in text files of all acquisition events, manual fixes, raw and processed navigation data is provided.

Rad ExPro : For the ***BRUTE STACK Processing and Processing Data***

Geo-Source 400 Tip x3

Marine Multi-Tip Sparker System
VHR marine seismic source
Water depths from 2 to 500 m
400tips , for higher energies above 1000 J,
and a 400 tip configuration with 4 x 100-tip electrode modules

Geo-Spark 7KJ x 3 (7000 to 21k Joules)

Triggering

Remote triggering of the unit is implemented by a TTL pulse, which is internally converted into a fiber-optic signal to the thyristor trigger device. There is no need for any external opto-isolator on the trigger line. During standby between survey lines, the unit will NOT trip - it will slowly bleed off but will remain ready for the next line.

Safe and Intuitive Operation

All connections, command buttons, switches and status LEDs are front-mounted to ensure direct safe access and intuitive operation.

STREAMER

➢ **Geo-Sense Ultra Hi-Res streamer** : **Multi channels (24/48 channels)**

- **Active Section & Jacket**
  - Number of Channels: 24 to 48
    - 24 channel with 3.125 spacing between groups
    - 48 channel with variable group spacing (2 - 4 - 8 m)
  - Jacket size ID & OD: 35 mm & 41.3 mm
  - Jacket material: Unreinforced polyurethane, wall thickness 3.14 mm
  - Buoyancy: Slightly positive, must be zero balanced using lead
  - Stress members 2 x 5 mm Kevlar rope, breaking strength >3000 kg
- **Tow Cable**
  - Length: Standard 75 m
  - Diameter: 18 mm
  - Strain member: Double reverse spiral Kevlar, 25 kg breaking strength
- **MANUAL CABLE REEL for 24 channel**
  - Manual SS Cable reel with integrated Multi-Trace foot print 120 x 70 cm, height 120 cm, weight 280 kg LAN deck lead to acquisition PC
- **ELECTRIC WINCH for 48 channel**
  - foot print 160 x 170 cm, height 180 cm, weight 480 kg LAN deck lead to acquisition PC

➢ **Hydrophon Specification:**

- **AQ-2000 Hydrophone**
  - **Frequency response**: 1 Hz to 10,000 Hz ± 3.0 dB
  - **Sensitivity @ 100 Hz**
    Free-field voltage: -201 dB re 1 V/µPa +/- 1.5 dB
  - **Sensitivity Change:**
    - vs. Frequency: ±0.25 dB from 1 Hz to 1 kHz
    - vs. Frequency: ±2.00 dB 1 kHz to 10 kHz
    - vs. Temperature: < 0.03 dB per 1◦C change
    - Vs. depth : < 0.5 dB to 1000 m
- **Pre-Amplifier**
  - Size: 60 x 16 mm
  - Gain: 26 dB
  - Ground reference: Single-ended
  - Power : 9 -12 V DC (polarity protected)
  - High-pass: -3 dB: 3 Hz
  - Low-pass: -3 dB:13 kHz