Mini-Trace II

24-bit Very Hi-res Seismic Acquisition Module

Mini-Trace II dual acquisition module

The new Mini-Trace II acquisition module is a very high resolution, 24-bit sigma-delta, seismic recorder, which can be interfaced to any suitable laptop or desktop computer, using a plug-and-play USB connection.

Navigation data is acquired via the LAN of the control PC or via a serial port on the acquisition module (for old systems)

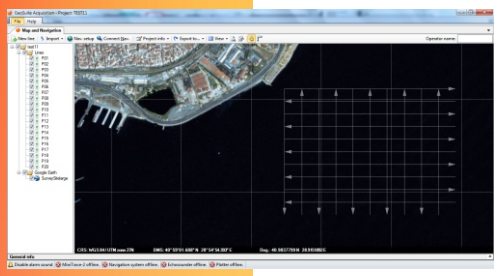
Timeless and reliable hardware

The Mini-Trace II is timeless and will serve you a long time. It features extremely reliable hardware with fully integrated electronics, which will outlast by many years the typical life time of the control computer.

Dual Mode - Programmable Triggers

The module contains two independent channels with two independently programmable triggers allowing to synchronize two sources without interference (Asynchronous mode)

In asynchrounous mode: sparker + pinger, or sparker +water gun, but also sparker + side scan can be triggered in such a way that you will see no interference of the Sparker signal on the SSS data.



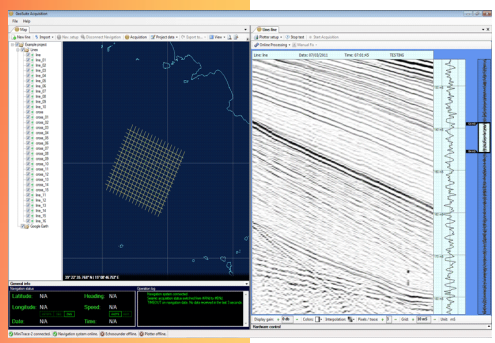
The latest version of GeoSuite Acquisition

The GeoSuite Acquisition software is written using the latest development technologies available for the 64 bit windows platform.

By taking advantage of the windows network infrastructure it is possible to run post processing tasks on the GeoSuite Allworks PC while acquiring data on the GeoSuite Acquisition PC

Automatic Software Updates

Software updates are now fully automatic via the Internet. Just connect your system and the GeoSuite software will check if you need any updates. Online support and news is available via www.geo-suite.com

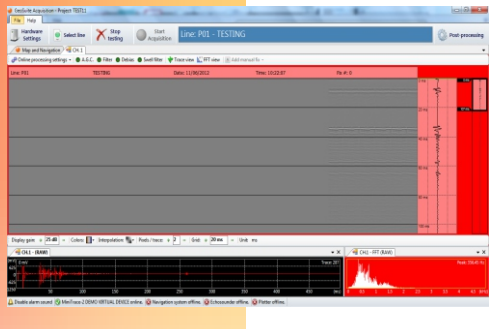


Efficient online quality control

The new status monitor makes recording of very high quality seismic data very easy. It tells you all you need to know about the dynamic range in use. The software also analyses your settings and warns you for any problems, which might occur in your recording.

Real-time navigation map

The navigation map is displayed in real-time showing your current position and route. You can combine it with any geo-referenced background e.g. from Google Earth. You can also use public domain data from hydrographic data bases. To generate a track plot of the seismic lines is just one click of the mouse.



Seamless integration with GeoSuite All Works

GeoSuite Acquisition software outputs the raw data a standard SEG Y file, which is seamlessly imported into Geo-Suite All Works.

Alternative you export the data in XTF format for import in any other third party environment.

Mini-Trace II
System Specifications

Inputs and Outputs

Analogue Inputs

The unit has two independent channels, each with an differential input ranging between +5 V and -5 V. The 24-bit sigma-delta A/D converter provides a 112 dB of dynamic range. This range eliminates the need to calibrate the AD converter for the incoming signal strength, thereby simplifying setup procedures, while retaining high data quality.

Trigger inputs

Each channel has its own trigger input which is can be used for the slave mode. For instance with an external trigger from navigation for shooting at fixed distance. Standard TTL input via BNC at the rear. Accepts trigger pulse from 4 V up to 12 V, 10 mA, with a pulse length of 1 ms.

Trigger outputs

Each channel has its own trigger output which is can be used for the master mode, normally used to trigger the source in time. Standard TTL output via BNC at the rear.

Programable Trigger

The two triggers are fully programmable, including all options to set delays, time-breaks, differential triggering and custom triggering patterns.

Navigation

Inavigation input is available via PC serial ports, LAN Network or Mini-Trace II dedicated serial port. The acquisition software supports NMEA data format or any other proprietary format navigation, fix and annotation strings, all data are logged and accessible in separate log files.

Data Recording

Recording devices

Internal SSD disks or external hard drives (USB 3.0 recommended) and remote network devices.

Automatic continuous recording switch-over.

Recording

All raw data files are recorded in Standard SEG Y format, with samples encoded in 32 bit integers and can also exported in XTF format (16 bit). In addition, extensive logging in text files of all acquisition events, manual fixes, raw and processed navigation data..

Display Modes

Multiple screens

Simultaneous display of the navigation map, multiple data channels and data types in multiple windows, on single or dual monitors.

Customizable windows layout

User-defined windows, Profile, Raw Trace, Processed Trace, Spectrum Analysis,

Real-time Navigation track plot window, left/right, up/down, scroll directions.

Navigation track plot

Real-time navigation annotation on screen is standard, dedicated window for real time track plot, navigation editing, smoothing, speed correction etc.

GeoSuite Acquisition

Software Functionality

All you need for hi-res seismic processing

The new **GeoSuite Acquisition** software comprises all necessary functions for **online** seismic processing, whereas **GeoSuite All Works** covers the **offline** processing.

Online processing never affects the raw data and is for QC purposes only. Nevertheless your online settings are automatically saved and can be used for a quick replay or print.

GeoSuite Acquisition online processing

- Debias: to remove any DC offset in raw data trace
- Change polarity: to swap any anomalous polarity input
- Filters: Band pass, Notch, Low Cut, High Cut, Time Variant Filter
- AGC: full options AGC
- TVG: you can draw your own TVG curve
- Gain: Linear Gain, Spherical divergence, etc.
- Automatic seabed tracking, manual pointing of search window
- Swell filter with advanced operator settings
- Display Modes : grey scales, custom color coded, variable area, wiggle
- Selectable Aspect Ratio: easy selection of Vertical and Horizontal Scale

Advanced triggering options

GeoSuite Acquisition features several triggering options:

- internal trigger
- external trigger via TCP or UDP connection, serial port or TTL BNC

Furthermore the trigger pattern can be customized with the trigger programmer tool

GeoSuite Allworks final processing, interpretation, 3D viewing

After or during the acquisition phase GeoSuite Allworks can be used for the final processing, interpretation and 3D viewing.

It comprises all processing modules, you need to produce a clear seismic profile, complete with interpretation, ready to print to a **full resolution** PDF, JPEG, TIFF, PNG and BNP file, which can be handled by all Windows printers / plotters

Complete GIS oriented data base

GeoSuite Allworks is not limited to hi-res seismic processing, it is a complete GIS oriented database suitable for both seismic interpretation and 3D viewing.

GeoSuite Allworks can handle a wide range od data sources: multi-beam surfaces, well information, scans of old seismic profiles, earthquake data etc..... and display them all together with your survey data

GeoSuite Allworks is continuously improving: multiple plug-ins are already available and we always willing to include new ones on demand.

GEO Marine Survey Systems b.v.
Sheffieldstraat 8
3047 AP Rotterdam
The Netherlands

Phone: + 31 10 41 55 755
Fax: +31 10 41 55 351
E-mail: info@geo-suite.com
Website: www.geo-suite.com

Mini-Trace II
Hardware Components

Physical Specifications

Models:

Portable Laptop version
Slim-line Mini-Trace II acquisition module c/w
High-quality, wide screen (17") Laptop

19 " rack Workstation version
Slim-line Mini-Trace II acquisition module c/w 19" stainless steel mounting brackets
19" rack mountable industrial workstation plus wall mounted monitor(s)

Dimensions

Mini-Trace II Acquisition Module: 400 mm wide x 45 mm high x 285 mm deep

Shipping Case

Portable version in Laptop hand carry bag or in indestructible watertight **PELI** case
19" rack-mountable system delivered in flight case

Mains Power

Portable version 100-240 Volts 50-60 Hz AC, mains power failure protected
19" rack-mountable system 100-240 Volts 50-60 Hz AC, UPS is always recommended

Processor

Portable version Intel Dual Core 2.0 GHz or better
19" rack-mountable system Intel Dual Core 2.0 GHz or better

Hard Disks

Portable version minimum 2 Gigabyte
19" rack-mountable system minimum 2 Gigabyte

Multiple Screens

Dual screens are optional for the Laptop and Multiple Screens depend on the choice of the workstation
For the 19" rack-mountable systems we recommended wall mounted screens, which can be suitably placed in the survey room.

3-year Guarantee

Each Mini-Trace II module comes with a 3-year guarantee for any hardware breakdown, which is not due to an operator error, over voltage or obvious negligence.

Accessories

GEO Marine Survey Systems b.v.
Sheffieldstraat 8, 3047 AP Rotterdam
The Netherlands
Phone: + 31 10 41 55 755
Fax: +31 10 41 55 351
info@geomarinesurveysystems.com
Website: www.geo-spark.com