Reliable measurements.

M24 Compact / LP

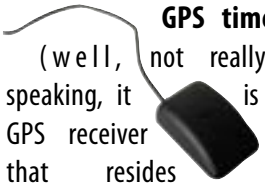
3- or 6-channel Low Power Field Recorder & Network Seismograph

Quality exists
when the price is long forgotten.

lennartz electronic

Until very recently, you had to make a tough choice. Portability and low power consumption, or flexibility and network integration. You couldn't really get both of these slightly contradictory properties in one box. Now you can.

M24 Compact/LP is a portable field recorder with **3** built-in 24-bit channels (expandable to **6** channels by adding a plug-in digitizer module), recording on a **removable 2.5" IDE hard disk** (20 GB).



GPS time is built in (well, not really: technically speaking, it is a combined GPS receiver and antenna that resides outside the box – and the cable can be prolonged easily!).

Both the hard disk drive and the controlling microprocessor are **powered up only when needed**, thus preserving power.

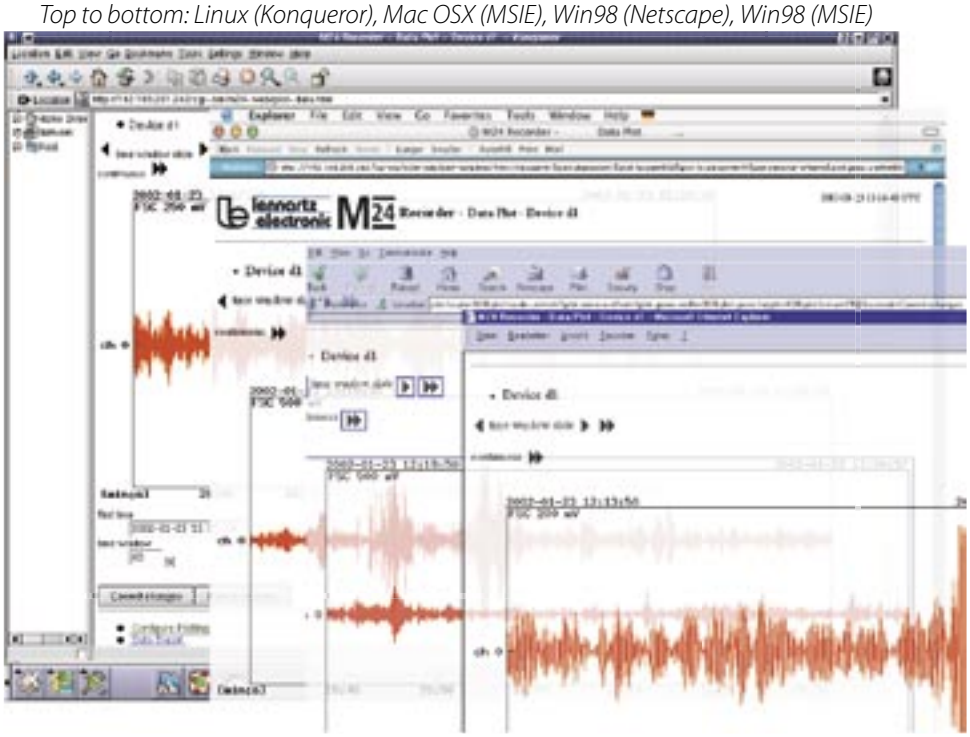
So far, so good. Nice but not very exciting. The really nice stuff is hidden inside, and springs to life when you need it.

At the flick of a switch, or upon a wake-up call from the outside, a Pentium-class, Unix-powered server system makes the instrument's entire database available to you, using a **platform-independent web-based data request management tool** that you navigate in a plain web browser. On-line or off-line seismogram display is implemented through the same interface.

Here's a short lineup of functions that can be performed through the web interface:

- Digitizer setup and control
- On-line seismogram display with automatic graphics update
- Off-line seismogram display showing any arbitrary section of the database on disk
- Data export to ASCII, SEG-Y, GSE 2.0, or miniSEED formats based on user-settable time windows
- Setup of automatic, unattended data export in daily or hourly slices
- Download of daily or hourly slices without resorting to ftp
- View state-of-health information from digitizer(s) and GPS receiver in tabular or raw format

Web browser seismogram display on various platforms
Top to bottom: Linux (Konqueror), Mac OSX (MSIE), Win98 (Netscape), Win98 (MSIE)



- Set or modify security settings (instrument settings viewable, or modifiable with password, or modifiable for everybody)

When the server is powered up, a **Seedlink** back-end can optionally be enabled, turning the instrument into a full-blown Seedlink data source, ready to be integrated into a **SeisComP** network.

All communication with the outside world is based on **TCP/IP**. Although not a necessity to use, telnet and ftp servers are present on the machine (using a password-protected login procedure), making it enormously flexible and configurable for power users.

And, in case you wondered: a separate leaflet is available for **hard disk playback**. We have a practical, platform independent solution for this problem, too!

Technical data

Principle	*24-bit Δ/∑ (Crystal), one converter per channel*
Number of input channels	*three, optional six*
Input signal clip level	*± 10 V, ± 5 V (ultra low power version)*
Power supply	*12 V DC, < 2 W (recording only, ulp version)*
Time signal	*external GPS Receiver/Antenna, included*
Output interfaces	*10/100 base T Ethernet RJ-45, Serial*
Data formats	*ASCII, SEG-Y, GSE 2.0, miniSEED*
Recording	*Continuous ring buffer with additonal STA/LTA*
Sampling rates	*500, 200, 100, 80, 50, 40, 20, 10, 1 Hz*
Additional rates	*250, 125, 62.5 Hz and many others*
Auxiliary channels	*Battery voltage, temperature*
Dimensions (weight depends on exact configuration)**:**	
Metric	*40.6 cm * 17.8 cm * 33 cm (23.8 liters)*
U.S.	*16" * 7" * 13"*
Protection class	*IP 68 / NEMA 4X, 6P*

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02/2002 Subject to change without notice