

digital Neurography at your fingertips



Digital Neurography « at your fingertips »

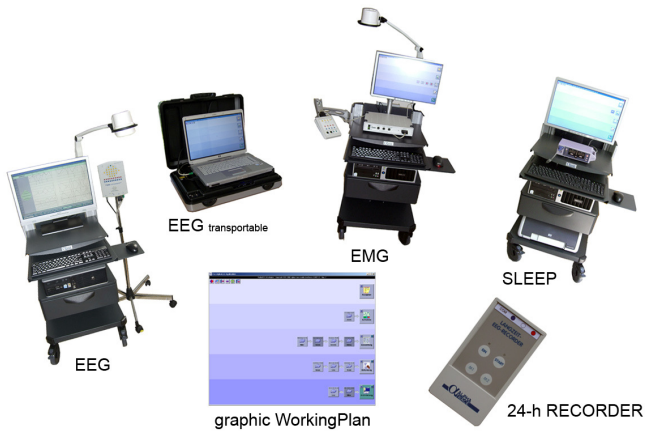
- Stand Alone Station
- Networked Station

Options

- EP (AEP, SEP, VEP, MEP)
- NCV
- EMG
- EEG
- Synchronized Videometrie
- Quantitative EEG – Spectra – Mapping - Coherence
- Trend Monitoring - power-, frequency, CSA, DSA
- Polysomnography

The complete Neurophysiology Lab

The *alpha-trace digitalNeurograph* truly delivers „Neurography at your fingertips“. Based on the proven *alpha-trace* data base and featuring the unique graphic **WorkingPlan** the *alpha-trace digitalNeurograph* completes the integrated network solution for the Neurophysiology Lab.



The graphic *WorkingPlan* offers an intuitive interface and an up-to-date view of all activities on your *alpha-trace digitalNeurophysiology* network; in real-time and network-wide.



One single click on a session icon lets you have access to all relevant patient and recording information plus direct access to prior reports.

A powerful database not only manages all patient and recording data but also keeps track of your Neurophysiology recordings, reports, analyses and even archive media. For different applications you may define different settings (e.g. EEG, SLEEP, AEP, VEP, SEP, NCV, EMG, etc.) with all parameters such as channels, montages, markers, filter settings, etc. preset.

alpha-trace digitalNeurograph

The base-unit, the head-box on a swivel arm, the large high resolution TFT monitor, and the PC are all mounted on a compact trolley with large wheels.



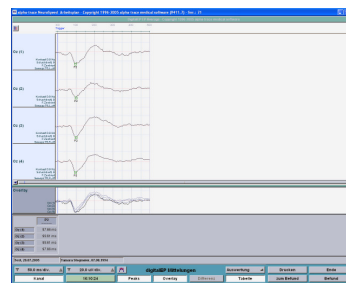
The headphones for AEP, the electro stimulator for SEP and the optional LED goggle all connect to the base-unit. The Monitor for contrast VEP connects to the PC.



The head-box accommodates four referential inputs for EP studies and four additional difference inputs for EP, NCV studies.

The head-box also supports the well established DIN-connectors for NCV and EMG studies.

Evoked Potentials



Perform your EP (AEP, VEP, SEP, MEP) studies with preset setting options, select from lists of predefined tests, change stimulation parameters as required, automatic component detection, overlay, odd/even

averaging, Left/Right display, difference displays, and the proven ease of use of *alpha-trace* products.

For more sophisticated applications all EP data are stored and ready for re-analysis and further evaluation.

Use the integrated report editor inserting graphics and tables for your report documents.

The graphic *WorkingPlan* allows for easy access to all recordings in your lab. Each session icon exhibits the date and time of the recording, the patient name and a pictogram representing the type of recording (EEG, AEP, VEP, SEP, NLG, EMG, SLEEP). Review EP data on any *alpha-trace* review station with the EP software option.

Id	Name	Kategorie	Lat. Min.	Lat. Max.	Typ	Normale
N9	N9	Auto	8.0 ms	10.0 ms	Neg. Erb. ERB	Kopieren
N13	N13	Auto	12.0 ms	14.0 ms	Neg. T112	Löschen
N18	N18	Auto	18.0 ms	20.0 ms	Neg. C3, C4	
P22	P22	Auto	21.0 ms	23.0 ms	Pos. C3, C4	

Latenz	Typ	Name	Komp.1	Komp.2	Komp.3	Komp.4	Kanal.1	Kanal.2
Latenz	N9	N9						
Latenz	N13	N13						
Latenz	N18	N18						
Latenz	P22	P22						

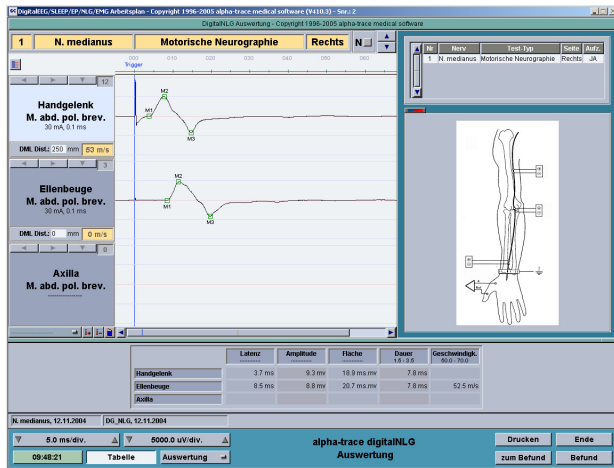
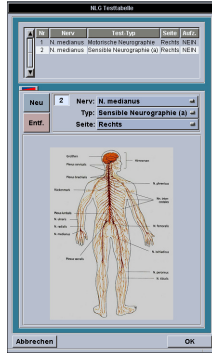
Define EP components as required (a basic set for routine applications is standard). Use predefined normative data or make up your own normative data base.

Nerve Conduction Studies

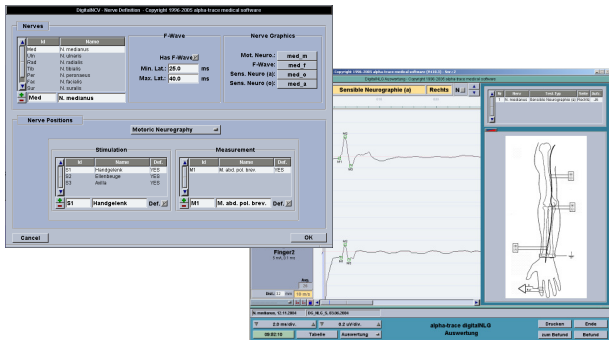
Perform motor and sensory nerve conduction studies with *alpha-trace* typical ease of use. Predefine the nerves and tests you want to study per session. During the study you may add tests if required.

Automatic markers with manual control, tables with calculated latency, amplitude, area, duration, and NCV values are available

Repeat a test at any position as necessary, no data are lost unless explicitly deleted.



Generate reports with user defined report templates, automatic graphic and table import and the text module feature.



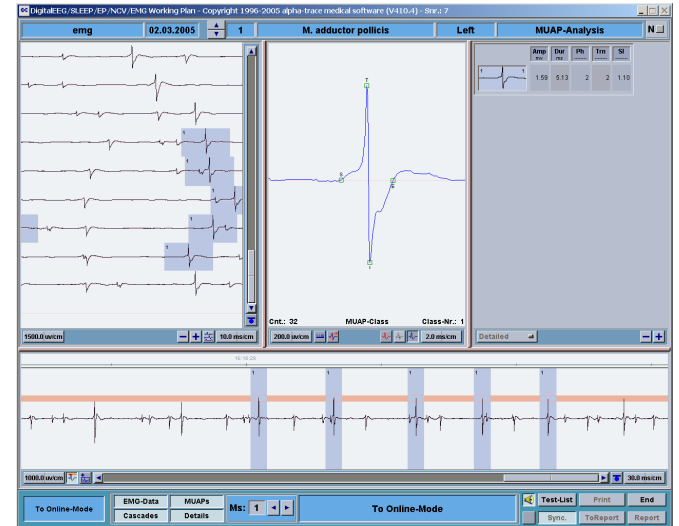
Review test data on separate review station(s) with optional NCV review software. Archive/retrieve tests with integrated archive software.

EMG

The EMG package delivers ease of use for myographic studies. Capture and analyze insertion activity, MUAP, and interference.

Adjust windows, amplitude-, and time scales as required; these settings are automatically stored.

Select from a detailed muscle list and predefine a sequence of tests to be performed, add muscles as required during the study. Customize your list of muscles.



Windows for ongoing EMG data display, cascaded data display, detail window, MUAP class window. Select trigger level and width.

Trigger based automatic MUAP detection and classification. Automatic calculation of MUAP parameters: amplitude, duration, phases, turns, size index.

Since the EMG raw data are stored a review of raw data and reanalysis are possible.

Report generation with graphic and table insertion and customized report templates. Review EMG on networked review stations with the EMG review software option.

Review all tests performed on a patient including Neurography, EEG, EP, SLEEP, EMG if applicable and software option installed.

Export/import tests in *alpha-trace* native format or EDF format (where applicable) if required.

alpha-trace digitalNeurograph

Technical Data

Amplifier

No. channels	8
Range chan. 1-4	+/- 100µV; +/- 1000µV
Range chan. 5-8	+/- 1000µV; +/- 15mV
Digital resolution	16 Bit per channel
Sampling rate	256 / 512 / 8192 / 16384Hz
Lower frequency	0,3 / 10 / 100 Hz
Upper frequency	100 / 2000 / 3000 / 8000 Hz
Notch filter	50/60 Hz
Recording (reference)	against reference electrode
Functional test	10 / 500 Hz, 50 µV _{ss} , Sine
Impedance	0,12 µA _{ss} , Sine
Inputs	channel 1-4 – REF channel 5-8 difference channel 5 and 8 DIN 5-pin
PC-Interface	TCP/IP
Link to PC	X-patch cable
Digital output	4
Digital input	4

Computer

Processor	Intel dual core
Hard disk	S-ATA 160 GB min.
CD	DVD/CD-RW
Case	Tower
Archive	CD/DVD writer optional MO drive

Monitor

Recording Station	19" TFT (1280 x 1024)
Review Station	19" TFT (1280 x 1024)

Operating System

Microsoft	Windows XP prof.
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Trolley

Standard	55 x 90 x 58 cm (W x H x D)
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Software Basic

Basic software	Reception (Database) Record Review Report Archive Definitions Database search Import / Export EDF Import / Export
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Software specific*

NCV	NCV motor NCV sensory F wave
EP	AEP, BAEP, P300 VEP contrast, goggle, flash, P300 SSEP
EMG	insertion activity MUAP interference

Stimulators

SEP/NCV	constant current stimulator 0-100 mA
VEP	contrast monitor 19" LED goggle** LED flash lamp**
AEP	headphones

Upgrades and Options

Printer	color inkjet printer Laser printer
Archive	5,2 GB 5,25" MO disk drive

Complies with

EN 60601-1/1990+A1/93+A2/95
EN 60601-2-26/2003
EN 60601-2-40/1998
EN 60601-1-2/2001

* Software module options

** Stimulator options

B.E.S.T.
medical systems

Dr. Grossegger & Drbal Ges.m.b.H.
Ruthgasse 19/1, A-1190 Wien
Tel.: +43-1-368 17 97
Fax.: +43-1-367 70 23
Mail: best_medical@aon.at
Home: www.alpha-trace.at

Distributor:

Neuro Medical

Neurologie & Slaap
De Olmen 29, 6903 BL ZEVENAAR
Tel. 0316 341 876
Fax. 0316 342 275
www.neuromedical.nl
info@neuromedical.nl