

asalab™

turnkey eeg & erp solution



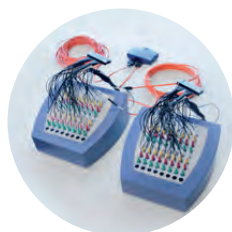
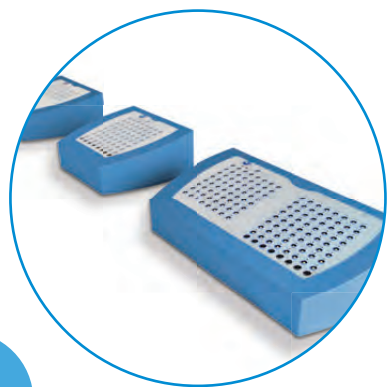
From signals to sources.

asalab™ turnkey eeg & erp solution

Psychological research on the basis of EEG and event-related potentials is a key source of information to uncover the highly dynamic relations between brain regions. **asalab** provides you with a turnkey solution to explore the brain's reaction to a particular experimental paradigm within minutes!

asalab offers the perfect solution for your research covering all aspects of your EEG studies: the carefully

manufactured sensor caps connected to a high-resolution amplifier with active shielding for each individual lead provide unmatched signal quality. Processing and analysis of incoming data can be configured automatically on your complete subject population to ensure reproducibility and a maximum efficiency. Designing and testing your experimental paradigms becomes as simple as operating a spreadsheet program.



Core features and benefits:

- The versatile EEG/ERP system is available in three system variants for EEG recordings of up to 32, 64 and 128 channels, and can be cascaded to double the number of channels from 64 to 128 channels and from 128 to 256 EEG channels.
- Full-fledged, professional solution for clinical validation projects, behavioral psychology, language experiments, vision research and many others. Types of measurements range from AEP, VEP, SEP, N100, P300, to complex language and multimodality paradigms. Interfacing to almost any presentation system.*
- Allows EEG/ERP recording in configurable setups, online display for traces, online averaging, and 3D mapping.
- Thanks to the high-capacity storage of 17 TB, high-density data with high sampling rate can be recorded continuously for days.
- Comes with full-band EEG DC amplifiers with max. 10,000Hz sampling rate.
- Data transmission at 24-bit resolution via optical cable and USB 2.0.
- No skin abrasion, thanks to active input shielding and the ultra high input impedance of more than 10^{12} Ohm.
- Innovative cap design ensures comfort, ease of use, and short preparation time.
- Flexible and highly-interoperable system for use with many different methods and technologies (ERP, TMS, fMRI, MEG, high-density EMG grids, eye tracking-, and video-integration). Inquire for a tailored solution or collaborative development project.
- Comes with **asa** analysis software for EEG/ERP analysis with a full range of signal processing and time frequency analysis methods such as wavelets, coherence, phase analysis, and more. MEG data analysis and source reconstruction methods are available in **asa pro**.
- Facilitates smooth automated interaction with third-party programs such as Matlab® and other advanced analysis programs.
- Runs on windows 7/8 OS, ready for remote support.

* Inquire for more information.

When usability and multi-modality go hand in hand

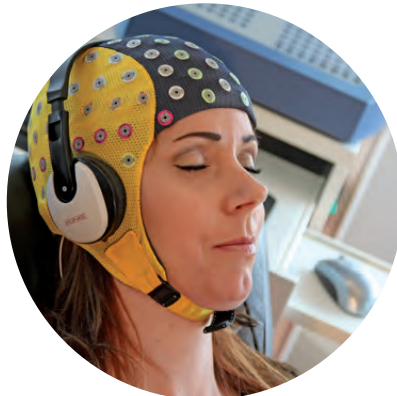
With **asalab** ANT Neuro offers a complete system for acquisition, stimulation and analysis for cognitive neuroscience that meets all basic and advanced lab requirements. Whether you want to analyze ERP data with peak scoring, spectral components, trial-by-trial information, dynamic 3D Mapping, cortical activation sheets, or current density images superimposed on the subject's MR scans - **asalab** is the all-inclusive solution for you!

asalab can be easily extended for navigated EEG/TMS with **visor2**, recordings of concurrent EEG in fMRI, co-registration of EEG and MEG, synchronized digital video, 3D electrode digitizing system (**xensor**), and other facilities.

In addition to the comprehensive set of basic and advanced methods, **asalab** comes with an integration interface to communicate with Matlab®, MS-Excel® and other third-party programs.



EEG/TMS



EEG/ERP



EEG/fMRI



In combination with eye-tracker



EEG/video recording

One solution for various sources

asalab consolidates many features into one highly versatile system, making it a valuable asset for many institutes and hospitals around the world in their pursuit of demystifying the complex dynamics of the human brain networks. **asalab** system is indispensable in brain research, for the study of:

- Learning and cognition
- Social interaction
- Memory
- Pain
- Motor coordination
- Diagnosis of diseases of the nervous system
- etc.

At Swinburne we have a number of ANT Neuro EEG recording systems. Our first **asalab** system was purchased 5 years ago and has expanded to 3 **asalab** systems, an **eegosports** system and multiple standard and MEG compatible **waveguard** caps. Our principle reason for choosing these systems over competitor systems was their functional flexibility, portability, and recording cap quality and durability. Functional flexibility is critical as well as we need to record EEG simultaneously in both MEG and TMS scenarios so being able to easily configure and transport a high density EEG system within and between multiple recordings environments is crucial.

*Professor David Liley
Principal Researcher in Brain Dynamics,
Brain and Psychological
Sciences Research Centre
Swinburne University of Technology,
Melbourne, Australia*

asalab™ product range

System/components	asalab™ 32 + 8 ES-409	asalab™ 64 + 8 ES-410	asalab™ 128 + 8 ES-411
EEG amplifier system	40-channel Refa amplifier with 10 kHz sampling rate (32 ref, 4 bip, 4 aux)*	72-channel Refa amplifier with 4 kHz sampling rate (64 ref, 4 bip, 4 aux)*	136-channel Refa amplifier with 2048 Hz sampling rate (128 ref, 4 bip, 4 aux)*
High-performance Windows PC with monitor	✓	✓	✓
Shielded waveguard EEG cap	2 pieces (free choice of size)	2 pieces (free choice of size)	2 pieces (free choice of size)
asalab software – recording and online analysis	✓ Single license	✓ Single license	✓ Single license
asa erp – basic EEG/ERP analysis	✓ Single license	--	--
asa pro – advanced EEG/ERP analysis	--	✓ Single license	✓ Single license
Adapter from waveguard shielded HD connector to 33 shielded micro-coax connector	✓	✓ (2 pieces)	✓ (4 pieces)
asalab starter kit (i.a. Blunt needles, Syringes, EEG gel)	✓	✓	✓
Warranty	2 years	2 years	2 years
Support (First 1/2 year free of charge)	Optional 2-year	Optional 2-year	Optional 2-year
Training on-site	On request	On request	On request

System options

System/components	asalab™ 32 + 8 ES-409	asalab™ 64 + 8 ES-410	asalab™ 128 + 8 ES-411
Cascading upgrade for asalab 64+8 to 128+16	--	Optional	Optional
Cascading upgrade for asalab 128+8 to 256 +16	--	--	Optional
fMRI kit for asalab	Optional	Optional	Optional
asa erp / pro network license	Optional	Optional	Optional
waveguard caps for MRI, MEG	Optional	Optional	Optional

* Referential channels (ref): EEG
Bipolar channels (bip): EMG, ECG, etc.
Auxiliary channels (aux): GSR, respiration sensors and others

asalab™ is compliant with international standards for use in clinical environments. CE marked as a medical device in the EU, according to MDD 93/42/EEC, class IIa. Medical Device clearance under FDA 510(k).

ANT Neuro b.v., Enschede, The Netherlands,
tel: +31 53 43 65 175, fax: +31 53 43 03 795,
internet: www.ant-neuro.com, e-mail: info@ant-neuro.com

Information in this document is subject to change.

www.ant-neuro.com/products/asalab