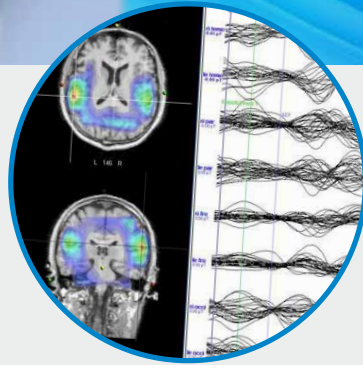


# visor2™ XT

Combined EEG-TMS and  
pre-surgical evaluation solution



Upgraded  
visor2™ XT  
solution



The multimodality package.

# visor2™ XT

## Combined EEG-TMS and pre-surgical evaluation solution

**visor2™XT has been further refined with extended features to satisfy even the most demanding research and clinical requirements for combined EEG-TMS studies and pre-surgical evaluation.**

visor2 XT is an advanced multimodality neuronavigation solution. It integrates all the features to satisfy even the most demanding research and clinical requirements for combined EEG\*-TMS recordings and functional mapping for pre-surgical evaluation. visor2 XT comes with a full set of functionality for real-time TMS neuronavigation, dual-coil

support and colored DICOM export of mapped functional hotspots for use in surgical navigation systems. In addition, it allows simultaneous EEG\*-TMS recordings with 64 EEG-channels and 6 EMG-channels. The visor2 software includes sophisticated EEG recording and analyzing features such as target definition based on EEG source analysis

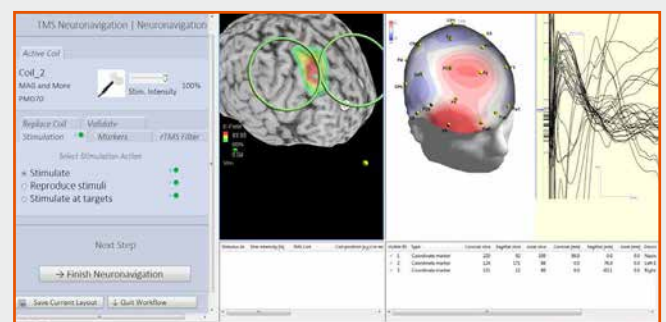
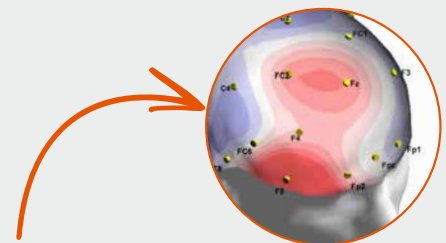
useful in advanced research and clinical validation. visor2 XT supports single pulse and repetitive TMS stimulations and is compatible with a variety of stimulators and stimulation coils combination for a wide range of research and clinical applications.

### New features and benefits

- Sophisticated neuronavigation solution with combined EEG-TMS\* and pre-surgical functional mapping to meet the most demanding requirements in brain research and clinical applications.
- High precision navigated TMS with real-time visualization of stimulated brain areas on individual patient MRI.
- Fully integrated EEG\*-TMS\*/EMG recordings (64-channel EEG and 6-channel EMG) for extended research potential.
- Compatible with different TMS stimulators and TMS coil combinations for each specific application.
- Supports single pulse and repetitive pulse TMS protocols.
- Dual-coil neuronavigation enabled.
- Optional extension module for highly customizable, pre- surgical speech mapping supported by dedicated workflows.
- Colored DICOM export of mapped functional hotspots for further review and processing in surgical navigation systems.
- Intuitive step-by-step workflow enabling straight-forward operation.

### Power up your research potential with navigated EEG-TMS

visor2 combines real-time navigated TMS with high-density EEG recordings and source analysis features that give you unprecedented in-depth understanding of the human brain. visor2 software allows EEG/ERP recordings in configurable setups and the import and display of electrode positions in the patient MRI. It enables real-time EEG data access and processing as well as annotations for further use in analysis. 3D voltage topology of a short-latency MEP can be used for TMS target definition. visor2 XT comes with a high-end 64-channel configurable EEG amplifier and -optionally- additional auxiliary channels. visor2 XT provides you great flexibility for your research!



# Potential areas of application

TMS is a reliable and safe neurostimulation method that is widely used for both therapeutic and diagnostic purposes. The integration of EEG recordings with EMG-TMS provides a valuable non-invasive tool to investigate the functionality of the human motor cortex in health and disease states. It provides useful insights onto the mechanisms by which MEPs are

modulated and helps achieve a better understanding of the pathological processes that underlie neurological and psychiatric disorders such as stroke, pain, schizophrenia, Alzheimer's disease and depression. Combined EEG-EMG-TMS may in addition facilitate the assessment of functional cortical impairments in conditions such as stroke or tumours. Using **visor2** XT adds

accurate real-time neuronavigation that fully supports combined EEG\*-TMS studies. It is compatible with a wide range of TMS stimulator models and TMS coils for full and flexible support of the neuromodulation community. Pre-surgical speech mapping is available as an extension module. See separate **visor2** functional mapping brochure.

## Research

- Neuroscience research (e.g. depression, pain, schizophrenia, stroke and cognitive psychology)
- Online EEG\*-TMS
- Online EMG-TMS
- Visual information processing
- Scientific validation
- Learning and memory

## Diagnosis

- Motor Evoked Potentials (MEPs)
- Nerve conduction velocity
- Emergency medicine
- Investigation of motor and sensory functions
- Noninvasive mapping of motor cortex and speech function

## Therapy

- Depression
- Stroke
- Tinnitus
- Pain

\*visor2 in combination with EEG- for research purpose only.

## visor2 XT neuronavigation solution.

### Standard components:

- **visor2** XT software set
- PC set with 24-inch widescreen monitor with mouse and keyboard
- NDI Polaris Vicra camera
- Tripod set for camera
- Pointer tool and head tracker tool
- **asa**<sup>TM</sup>pro trial licence
- **visor2** starter kit: e.g. passive sphere markers
- 64-channel **waveguard**<sup>TM</sup> cap
- 64-channel EEG and 6-channel EMG amplifier
- EEG starter kit

### Optional extras

- NDI Polaris: long-range Spectra camera instead of Vicra model
- Wallmount or cart instead of standard Tripod
- Coiltracker set and calibration board
- **xensor**<sup>TM</sup> package for **visor2** (3D electrode digitizer)



**visor2** XT solution

(Image may contain optional items. Actual model may vary)

System components	visor2™ XT
Software	XT software
PowerMAG ANT 100 rTMS Stimulator	--
NDI Polaris camera	Vicra or Spectra
Mounting options	Tripod, wall mount or cart
High-performance PC with 24" LCD monitor	✓
Tracking tools	✓
Trigger box with remote control	✓
EMG/EEG amplifier	64-channel EEG + 6-channel EMG
Pre-surgical EMG motor mapping	✓
Pre-surgical speech mapping	Optional
Reclining patient chair	--
Stimulator trolley	Optional
Warranty	2 years (1 year on NDI camera and cart)
Support	Optional 1- or 2-year remote support
Training	Upon request
Accessories	Calibration board and TMS coil trackers are separately ordered and are available for all commercial TMS products. No calibration board required for MAG & More TMS coils.

## Software Features

	visor2™ XT
Individual MRI import	✓
Segmentation and head modeling	✓
Brain visualization	✓
Patient registration and digitization	✓
Coil management	✓ (dual-coil)
Targeting	✓
Offline analysis	✓
Induced electrical field calculation and display	✓
Export of image markers and stimulated sites	✓ (monochrome & colored)
Pre-surgical EMG motor mapping	✓
Pre-surgical speech mapping	✓ (as an extension module)
Integrated EEG recording functionality <small>visor2 in combination with EEG- for research purpose only</small>	✓
Software interface to PowerMAG ANT 100 rTMS stimulator *	--

visor2 software CE marked as a medical device in the EU, according to MDD 93/42/EEC, class IIa. Medical Device License (MDL) issued by Health Canada. Manufactured by eemagine GmbH, Berlin, Germany, ISO 13485 certified. ANT Neuro and eemagine are part of the neuromotion group. Outside the EU and Canada, intended for research and educational use only. In the United States, limited by federal law to investigational use only. \*PowerMAG is manufactured by MAG & More GmbH, see separate brochure for regulatory information.

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Information in this document is subject to change.

[www.ant-neuro.com/products/visor2](http://www.ant-neuro.com/products/visor2)