# TMS*NAVIGATOR*

LOCALITE

For more than 10 years LOCALITE stands for competence in the field of medical navigation systems. The robustness and quality of our hard- and software components are traced back to the commitment and continuous enhancements in OR environments for years.

The LOCALITE TMS Navigator is developed under steady communication with our users and is characterized by its high usability. In addition to base functions for planning and navigation there is a wide range of other innovative modules available.
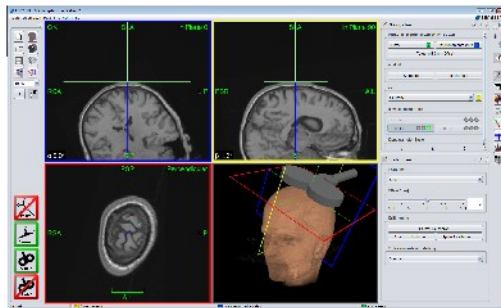
## Documentation and control

- **Continuous quality control:** Camera adjustment, visibility of instruments as well as patient- and co-registration

- **Reliable coil positioning:** Indication of the coil tilt angle and the distance between coil hotspot and head surface during navigation

- **Movement control** for TMS coils with acoustic and visual alerts; free adjustable limits

- **Session management:** Automatic saving of every setting; recovering of every user-defined time stamp; bookmarks available; assignment with the help of patient lists

- **Open documentation:** Storage of all data in the XML-standard for customized external analysis or further processing for special research requests
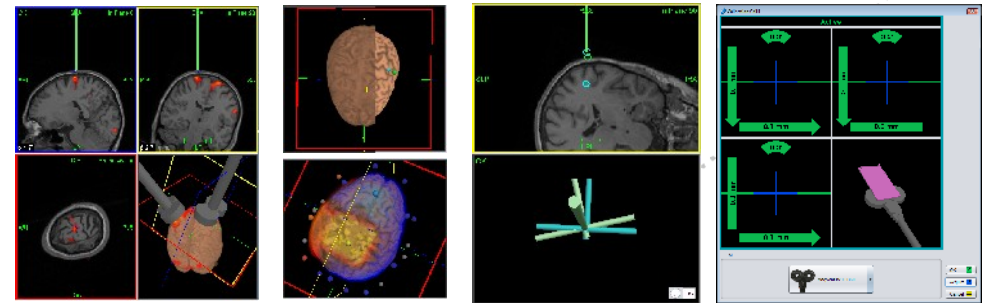
## Navigation and reproducibility

- Simultaneous navigation up to **four coils**

- Multistage **3D navigation support:** Based on data sets, entry/target-adjustment, accurate coil repositioning

- Quick and quality controlled **two step patient registration:** Landmark-based pre-registration and surface registration for optimal accuracy

- **Trigger markers:** 3D marking at point of stimulation for easy repositioning

- **MR-less navigation:** Availability of all functions for planning and navigation without an individual anatomical MRI based on an individualized standard data set*

## Display and data

- **Display of functional data** of different modalities: fMRI and PET/SPECT*

- **Color coded visualization** of activation and deactivation in fMRI data*

- Display and definition of all **markers in various coordinate systems:** DICOM, MNI, Talairach

- **Configurable 4 window view:** Orthogonal slice images as well as 3D view of anatomy and navigation assistance; size and arrangement selectable

- **All markers configurable:** Color, labeling, size, visibility

- **Accurate view** of all instruments in 2D and 3D

- **EEG Module:** Flexible definition and spacial assignment of any EEG-system in the MRI data set; color-coded visualization by means of imported time series*

- **NIRS Module:** Definition of optode positions in the MRI data set; color-coded visualization of imported measurements (individual configuration necessary)*

- **MEP Module:** Assignment of MEP information to trigger markers (manually or automatically); optimal functions to generate motor brain maps; DICOM export*

- Robust, semiautomatic **3D brain segmentation and brain peeling** with any depth: Optimized possibilities for orientation at cortical crenation

- **3D brain projection:** Projection of functional data, imported EEG-, NIRS- and MEP-values with free definable parameters onto the brain surface

## Usability and user interface

- **One man operation** by footswitch: Execution of most important functions with the help of assisting wizards

- **One-step coil calibration** for any coil types; integrated coil offsets

- **Import of functional data:** Semiautomatic co-registration or pre-registered data sets selectable; data formats: Analyze, DICOM, Interfile, NIfTI*

- **Multilingual interfaces:** English, German or French

*optional

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## Hardware and accessories

- All hard- and software-components are **certified as medical devices** (European CE mark)
- **Highly precise optical tracking** in two specifications with different measurement volumes
- Tracking cameras mounted on **moveable carts** for an optimal arrangement
- Connectable to **any TMS stimulator** via BNC (5V TTL)
- Direct communication **with MagVenture TMS stimulator** available on request
- **Universal TMS coil tracker** for TMS coils of all manufacturers
- **Light weighted ring tracker** for TMS coils of MagVenture (all handle bar diameters)
- **Light weighted calibration plate** for coil calibration (optimized for MagVenture TMS coils)
- **Variety of patient reference trackers** for different applications: Fixation via head belt, adhesive pads or chin rest
- **3 pedal footswitch** for one-man operation
- Flexible **holding arms for TMS coils**
- Robust **multifunctional universal framework**
- **Storage case for safe-keeping** of the trackers

## Editions and configurations

- Systems for **research related appliance** in various scalable configurations available
- **Compact rolling cart system** with touch-tablet-PC for clinical or therapeutic practice without individual MRI data set
- Full system including all instruments and trackers also available as **MR compatible version**; more than 10 years experience with interventional radiology
- Individual solutions **according to your needs** and main focus possible

## Philosophy and service

- Competence by long time experience in the field of surgical navigation
- OR approved robust hard- and software
- Close customer reference: Individual software adaption or extensions possible
- Development and manufacturing in Germany
- Research related: Spin-off of the Fraunhofer Institute for Applied Information Technology (European research institution)
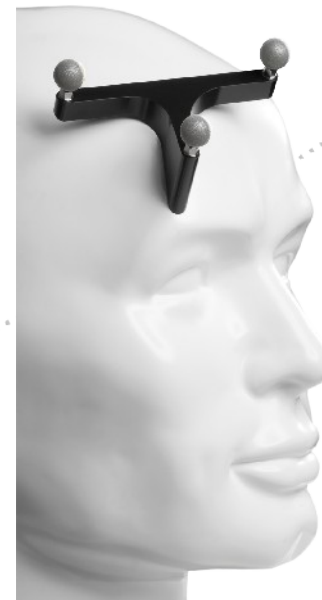
We will be glad
to give you **more information**!

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