

Profile

LOCALITE was founded as a spin-off of the Fraunhofer Institute for Applied Information Technology. Meanwhile, the Bonn based company is able to look back over 6 years experience in developing surgical navigation systems.

An interdisciplinary team of computer scientists, physicians, mathematicians and economists guarantees a broad scientific background and a vital and continuous company progress.

Philosophy

The company's objective is to develop medical products, which are handled intuitively.

Its origin from the research group for human computer interaction guarantees the transformation of this philosophy to reality. Thereby the user and his requirements take priority. Developments happen in close agreement and cooperation with the future user of the medical navigation system; the system is customized to his individual needs.

Products

Orthopaedics/Traumatology

- **KneeNavigator**
- **HipNavigator**

Neurology/Neurosurgery

- **TMS Navigator**
- **SonoNavigator**
- **iMRI Navigator**

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TMS NAVIGATOR

PRECISE STIMULATION USING NAVIGATION



Overlay of Functional Images

The LOCALITE TMS Navigator can combine functional and anatomical images of a subject.

The images are registered automatically, based on a rough manual mapping.

Registration accuracy can be inspected using the "magic lens" tool.

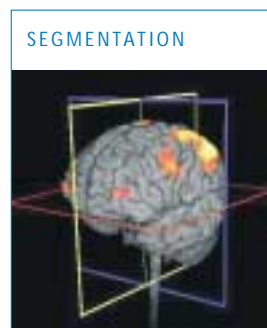
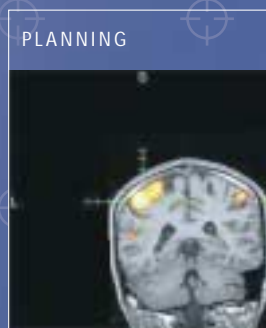
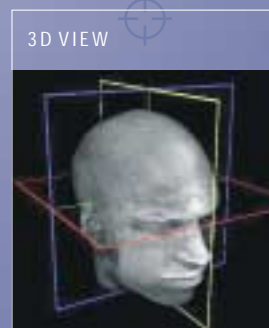
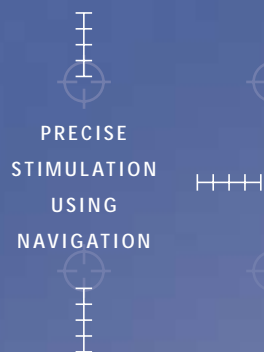
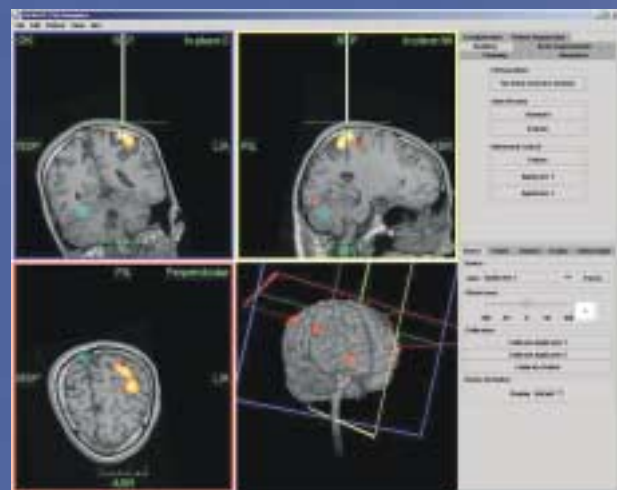


Image Segmentation

Segmentation software allows to hide (strip) the skull and show the brain surface. Thus anatomical structures of the brain surface (gyri and sulci) can be used for easy orientation.

In the three-dimensional view functional areas and depth cues can be projected onto the brain surface.



TMS NAVIGATOR

SAFE POSITIONING
OF TMS COILS

PRECISE TARGETING
USING OPTICAL TRACKING

NAVIGATION OF
MULTIPLE COILS

EASY TO USE
WITH FOOT SWITCH

LOGGING TRIGGERED
BY STIMULATION



Navigation

The LOCALITE TMS Navigator is an image-based navigation system for targeting transcranial magnetic stimulation (TMS). For precise stimulation of specific areas of the brain, MRI and fMRI images of the individual brain anatomy are used to position the coils.

Until now, researchers have positioned TMS coils based on general anatomical models and their experience. A direct feedback of stimulation success was available only for simple motor functions, but not for higher cognitive functions.

With LOCALITE TMS Navigator, users can now use both anatomical and functional MRI data to achieve highly targeted stimulation.

Coils and the subject's head are tracked by a high-resolution optical tracking system. It uses markers fixed to the coils and to a chin rest or to a headband the subject wears. Different types of coils can be navigated at the same time.

For more details please contact us.
We will be pleased to provide further information.