nordicBrainEx

Analysis and visualization solution for presurgical brain mapping

- *Automated BOLD and DTI analysis*
- *Optimized workflow and minimized processing times for improved productivity*
- *Easy export of BOLD activations and fiber tracts to neuronavigation platforms*

nordicBrainEx is a software application for post-processing and visualization of BOLD fMRI, and DTI data. nordicBrainEx addresses key issues in analyzing functional MR data within the clinical workflow. The simple and user-friendly interface improves user productivity while the automated protocols, processing steps, and quality control features minimize the probability of error or variability in the quality of the results.

Advanced volume of interest tools, combined with 2D/3D visualization of BOLD activation areas and DTI tractography allows clinicians to perform extensive evaluations of brain tissue surrounding pathological areas. nordicBrainEx is DICOM compatible and capable of analyzing data from all major MR vendors. All processed data can be saved in a comprehensive report, sent to PACS or exported to neuronavigation systems.

Workflow

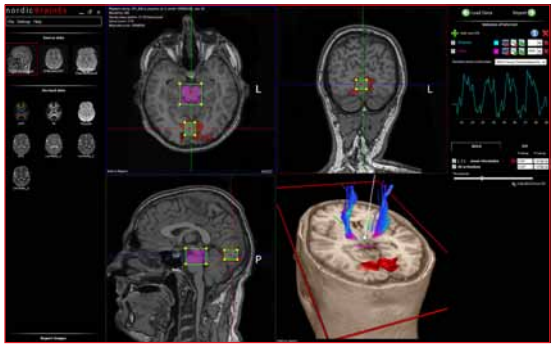
Focusing exclusively on clinical use of functional imaging techniques, nordicBrainEx optimizes overall workflow and minimizes processing times.

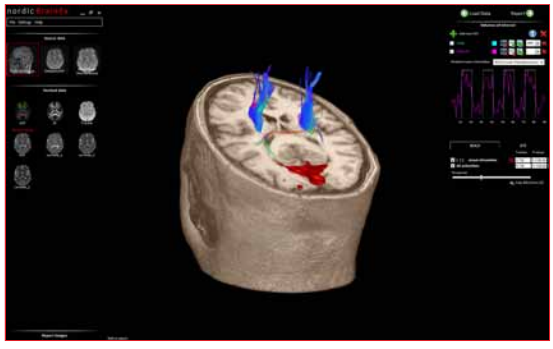
Visualization

By incorporating advanced features such as enhanced 2D/3D visualization of BOLD and DTI tractography, extensive volume of interest capabilities and time-course evaluation, nordicBrainEx becomes a powerful tool in brain pathology evaluation. Use various derived maps like FA, cDTI and ADC as underlay/overlay, or in the 3D Viewer for improved evaluation.

Documentation

By simplifying export of images to PACS and neuronavigation systems, and adding selected images to the clinical report generator you will be able to fully document and present your case prior to surgery. In order to redo or continue your analysis at a later stage, you can save all processed information as a separate session.





KEY FEATURES

- Automated analysis
- Intuitive and easy-to-use interface
- Optimized workflow and minimized processing times for improved productivity
- Seamless integration with NNL fMRI hardware for stimulus presentation and response collection

VISUALIZATION FEATURES

- Combined 2D/3D visualization of BOLD activation areas and DTI tractography with anatomical data allows a user to view conventional planar views and 3D reconstruction on one screen
- Volume-of-Interest tools enable a user to evaluate statistical results such as time course of signal change in a single voxel or a specific region of interest

IMAGE PROCESSING FEATURES

- Automatic recognition and analysis of BOLD and DTI datasets enables a user to upload and process anatomical and functional datasets with few mouse clicks
- Automatic coregistration allows a user to coregister both, multiple functional datasets to structural images, and multiple high resolution anatomical datasets
- Simple re-processing of data gives a user the ability to repeat the analysis quickly using modified parameters