NordicNeuroLab

Software Release Notes for nordicBrainEx v1.1.1

Revision 2
Date: March 6th 2012
Approved by: Sigvald Høyheim

NOTE: The most current documentation for released products is available on http://www.nordicneurolab.com. The online documentation may contain updated information on modifications made and issues reported after this document was issued.

Introduction

These release notes accompanies the new revision of nordicBrainEx version 1.1.1 released on November 17th 2011, and summarizes the reasons to upgrade from previous versions and resolved issues, as well as known issues and limitations.

Overview

nordicBrainEx v1.1.1 is a new revision of nordicBrainEx, implementing several fixes of various issues reported in. Most of these issues are related to the robustness and stability of the software during extensive use over longer time periods.

Who should upgrade?

Based on the improvements made to software and the basic stability and robustness of it, we would strongly recommend anyone using nordicBrainEx to upgrade to the latest version. You should especially consider upgrading if you're having troubles with image transfer across the network, or you experience "Access violation" or "Out of resources" error messages or any of the other issues listed below as resolved.

Resolved issues

#429 Make sure BOLD activations displayed in the 3D viewer is repositioned when changing the underlay volume in this viewer.

#435 Corrected problem with detection of volumes/slices in mosaic datasets received via the network (DICOM STORAGE)

#436 Make sure "Slice All" works when selected on a maximized direction in the MPR.

#439 Improved handling of memory exceptions during fiber tracking

#440 Improved catching and handling of memory issues during BOLD analysis and Slicing operations.

#441 Corrected a memory leak in when closing analyzed BOLD series.

#442 Improved memory handling in MPR background calculations

#445 Reduced the risk of the application appearing to freeze during heavy operations in the 3D viewer, like rendering BOLD activations.

#446 Improved scrolling through dynamic series in the MPR to now avoid building up the number of used GDI objects in the system

#447 Corrected an issue where changing from viewing a dynamic series to viewing an output map in the MPR would fail in certain situations

#448 Corrected a bug when first removing an analyzed DTI series with a processed Seed, and then trying to remove the Seed VOI.

#451 Corrected an issue where the NOT voi would not always exclude all the fibers passing through it.

#452 Improved changing of underlay in the MPR to now avoid building up the number of used GDI objects in the system

#454 Corrected a memory leak when loading of a series was aborted

#455 If test of OpenGL compatibility has failed it was unable to redo the test correctly on latter runs of nordicBrainEx, this has been corrected.

Enhancements

-

Supplementary Notes

The software is installed by running the installer **nordicBrainEx_Setup.exe** available on request. nordicBrainEx is **not** compatible with any existing DICOM database already present on the system from any nordicICE installation up to and including nordicICE v2.3.12, meaning that these two applications cannot coexist on the same computer without causing some degree of problems.

System Requirements

Minimum requirements

nordicBrainEx v1.1 will run on a computer that meets the following minimum requirements:

- Operating system:
  - MS Windows (XP, Vista or 7)
- Hardware:
  - Pentium 2.0 GHz processor (or equivalent)
  - 2 GB RAM
  - 60 MB of free space on hard disk + 2 GB additional space for images (hard drive space should be added as image storage requirements increase).
  - Open GL 1.4 (or higher) compatible video adapter with at least 128 MB RAM
  - Monitor with 1024x768 resolution

Recommended requirements

To prevent poor software performance and to get the most out of nordicBrainEx, we recommend that the computer meets the following specifications:

- Operating system:
  - Windows 7 (64 bit)
- Hardware:
  - Pentium 3.0 GHz dual core processor (or equivalent)
  - 6 GB RAM
  - 60 MB of free space on hard disk + 100 GB additional space for images (hard drive space should be added as image storage requirements increase).
  - 256 MB nVIDIA or ATI Video adapter
  - Monitor with 1920 x 1200 or higher resolution

Contact

For questions or problems please contact support:

support@nordicneurolab.com

Known issues and limitations

#100 Changing patient when one of the directions in the MPR is maximized causes the new patient to only be loaded in the maximized direction, and the other directions to be black. Workaround: Go to standard MPR view before changing patient.

#101 "Slice all" when viewing "Dynamic series" returns only one image. Workaround: use the manual slicing tool.

#102 Trying to render a RGB-Volume using volume causes failure.

#174 Activation volumes larger than visualized in MPR. This is partially due to usage of different interpolation algorithms, default in MPR is trilenear and in Export it is tricubic.

#206 "Find VOI" does not work properly when in Zoom/Pan mode

#207 Trying to load a session, if the sessionfile does not exist, does not give a descriptive error message, just a standard Windows error message.

#208 Moving a VOI will make hidden fibergroups become visible in the 3D viewer, and they will have to be toggled on and off to be hidden again.

#209 The following things are not saved in a session:
- Datasets set as overlays/underlays, this is not saved.
- Dataset set to "view in 3D", this is not saved.
- 3D viewer: Orientation is not saved
- 3D viewer: BOLD activations shown in 3D viewer not saved.
- 3D viewer: the orientation or cropping/clipping plane if any fancy editing has been done here is not saved.
- The order of BOLD activations are not saved (appears alphabetically).
- VOI color opacity not saved. Reset to default 30 %
- Fiber group color opacity not saved. Set do the default value

#210 Synchronize 3D/MPR does not work properly if the voxel-size is not 1x1x1

#212 VOI's that are reduced to a minimum size in one or more directions might lead to a failure to detect what fibers go inside this VOI as you might have crossing fibers that do not actually go through any of the voxels within the VOI. Workaround: make the VOI slightly larger.

#263 High resolution images (512 or higher anatomical, 256 or higher DTI) can cause out of memory problems during DTI. This problem can be reduced by using Windows 7 64-bit OS as this allows nordicBrainEx to use more memory, or you can use smaller resolution source images.

#264 Retrieving/receiving and/or sending large amounts of images causes the nordic Dicom Communicator service to fail, and thus the transfer to fail.