

## What's New

### BESA Epilepsy 1.0 February 2012

All changes since the last release BESA Epilepsy 1.0 August 2011 (1.0.4).

#### Major improvements

- Better performance of the BESA Epilepsy program. The following tasks run faster:
  - Database update
  - Start of EEG and cluster review (evaluation)
  - Initialization/update of the patient list in the database window.
  - BESA Epilepsy Evaluation working on EEG data server(s) with a large number of files.
- New logic for automatic spike detection is more flexible and fixed some smaller bugs. The spike detection runs automatically on EEG data files with confirmed electrodes and selects the files in the following order:
  - If you forced spike detection on a selected epoch/file (right click in the recording selection of the database window), this file is completely detected before switching to other EEG files. If no spike detection is forced the logic continues with step 2.
  - If a detection priority is set for a patient, all files of this patient are completely detected before switching to another patient. All files within the last 24 hours can only be detected by the program which has set the priority. All older files of the priority patient can now also be detected by other programs. If more than one patient has a priority the patient with the highest priority (lowest number) is detected first. If no priority is set to a patient with a recording within the last 24 hours, the files are not detected by a program. If all priority patients are completely detected or if no priorities are set, the logic continues with step 3.
  - Before start detecting the remaining files, cluster files and report files are pre-calculated for all detected EEG data files.
  - If files with confirmed electrodes are remaining, the files are detected from the newest file to the oldest file. The spike detection stops 5 minutes after the full hour to perform a database update and to check if previous steps are required. If a current recorded patient (within the last 24h) is assigned to this program the spike detection is interrupted every 15 minutes to continue the spike detection on the new data of the current recorded patient.

#### EEG data formats

- Alpha-Trace
  - Now we are supporting.
- NicoletOne-Nervus
  - Bugfix: The new reader from the August 2011 release did not read the patient date of birth.

- Grass-Telefactor
  - New reader with smaller bug fixes.
- EBNeuro
  - The reader now supports Galileo.NT and Galileo.NET35.

### **Bug fixes**

- The BESA Epilepsy Detection program no longer shows an open review after an error occurred during the cluster and hypercluster calculation.
- Japanese language support for hyper cluster comment edit box and the BESA Epilepsy Report
- Database configuration window: All specified inclusion / exclusion criteria for EEG data were missing in the window after the program has been restarted. This bug was only for display that means the criteria were still set during database update after the program has been restarted.
- Electrode configuration: The electrode configuration for EEG data files including channels with empty electrode labels were not loaded correctly. Now for all empty labels a default label is set. The default label starts with E and ends with the electrode number, e.g. E25.
- Electrode configuration: If the channel configuration includes only one EKG/ECG channel with a label EKG1 or EKG2, the channel was not visible in the review. Now the channel is displayed with the label EKG.
- Database configuration window: For Coherence EEG data folders it is now possible to specify a station name A- in the station inclusion/exclusion criteria.