

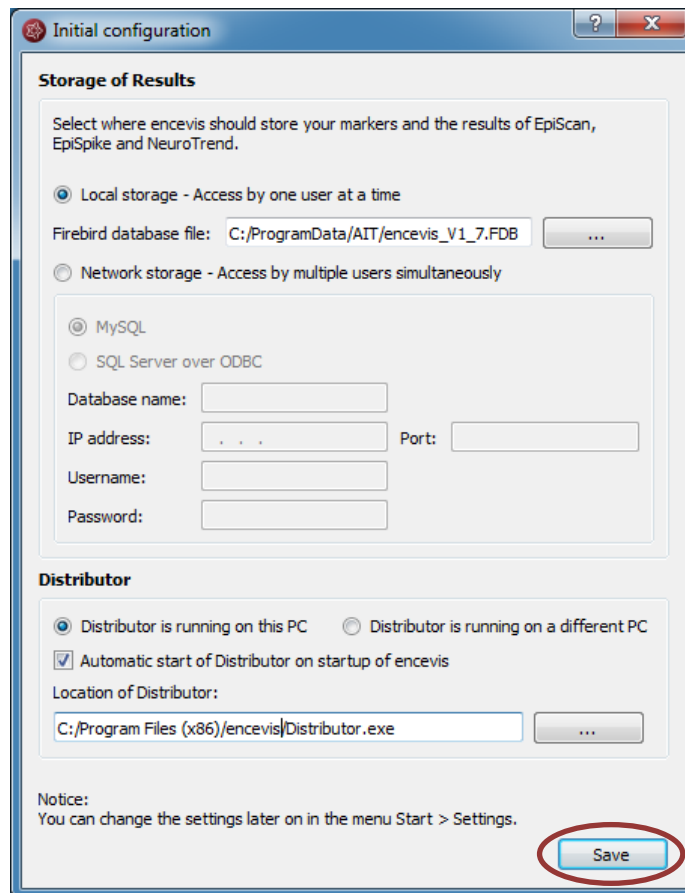
Quick Start Guide

encevis 1.7

Installation

Once you have downloaded **encevis**, continue with the following steps:

1. Start the **encevisInstaller**, this will guide you through the installation process.
2. Start **encevis**.
3. The initial configuration window will pop up.
4. Press “**Save**”, to keep the default settings.



Initial configuration

Storage of Results

Select where encevis should store your markers and the results of EpiScan, EpiSpike and NeuroTrend.

☒ Local storage - Access by one user at a time

Firebird database file: ...

☐ Network storage - Access by multiple users simultaneously

☒ MySQL

☐ SQL Server over ODBC

Database name:

IP address: . . Port:

Username:

Password:

Distributor

☒ Distributor is running on this PC ☐ Distributor is running on a different PC

☒ Automatic start of Distributor on startup of encevis

Location of Distributor:

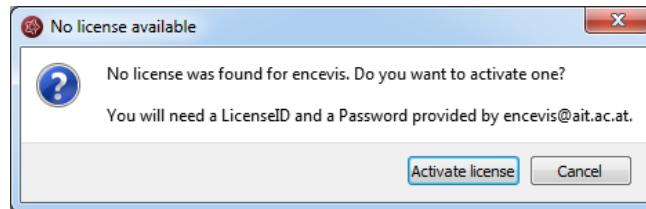
...

Notice:
You can change the settings later on in the menu Start > Settings.

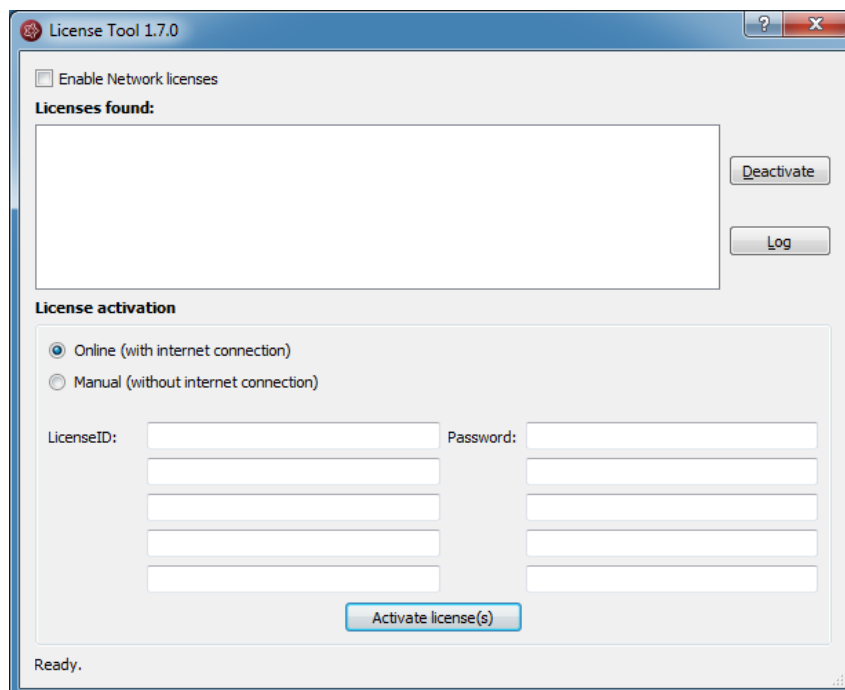
Save

License activation

1. Start **encevis**.
2. Press the button “**Open EEG**”, the following window will pop up:

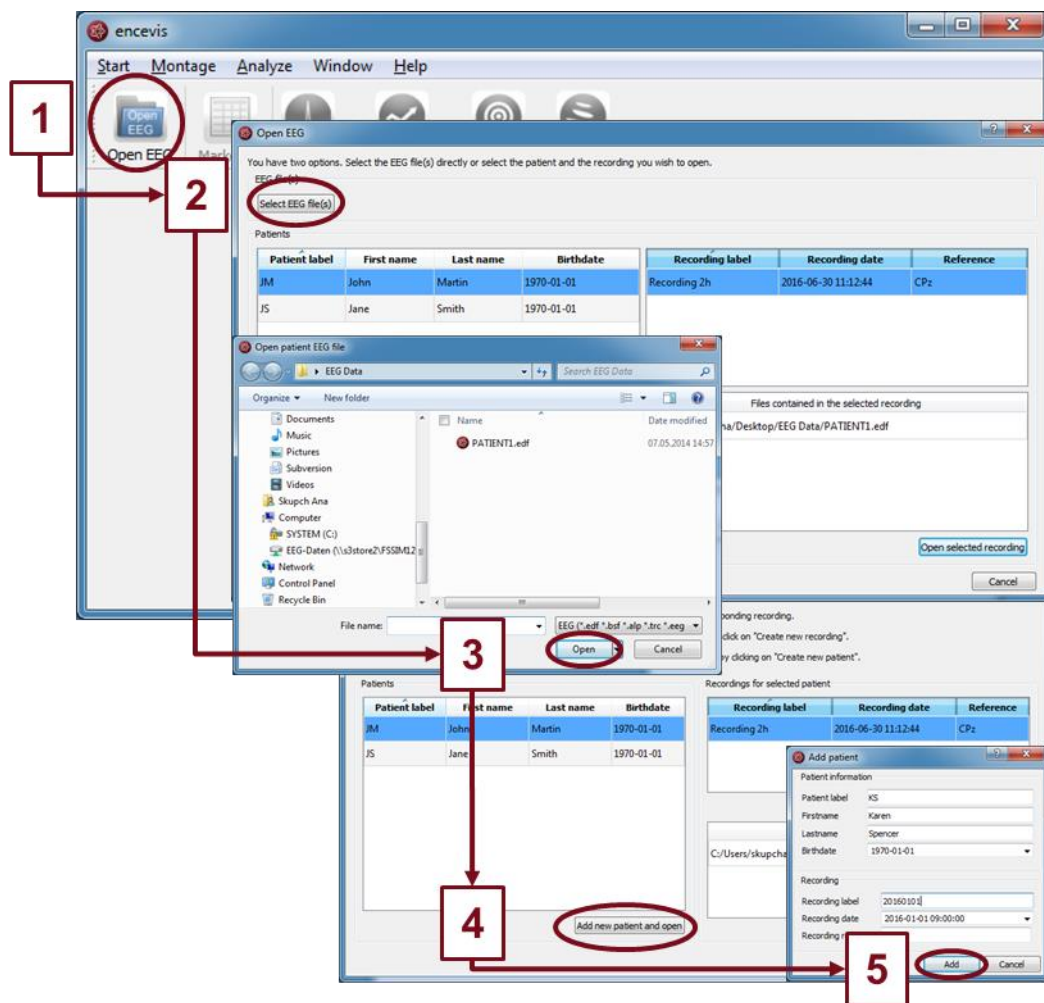


3. Press “**Activate license**”, the License Tool will pop up.



4. If you are connected to the internet, select “**Online**” as activation mode. Otherwise, select “**Manual**” and contact your distributor in order to get the keys for the manual activation.
5. Enter the LicenseID and Password.
6. Press “**Activate license(s)**”.

Open EEG file(s) in 5 steps

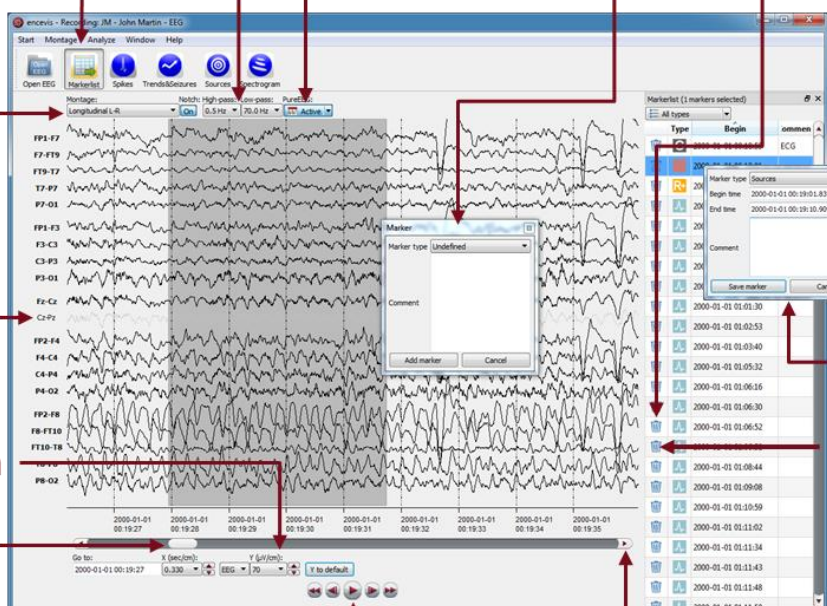


1. Press **"Open EEG"** or select the menu point **Start > Open EEG**.
2. Press **"Select EEG file(s)"**
3. Select the EEG file(s) that you would like to open.
4. If the file(s) are already registered in the EEG file management they will be opened immediately, otherwise a window will pop up. There, Press **"Add new patient and open"**, a new window will pop up.
5. Fill in the fields of the "Patient information". Fill in the recording label and the recording date and the reference used for the EEG recording. Press **"Add"**.



More information can be found under the menu point **Help > encevis Help**.

Review EEG



The screenshot shows the encevis EEG review software interface. Red arrows point to various functional areas, each labeled with a text box:

- Choose filters**: Points to the 'Notch: High pass, low pass, PureEEG' dropdown menu.
- Remove artifacts**: Points to the 'PureEEG' button.
- Step through markers**: Points to the 'Marker' button in the bottom toolbar.
- Add marker**: Points to the 'Add marker' button in the 'Marker' dialog box.
- Hide markerlist**: Points to the 'Markerlist' button in the top toolbar.
- Select montage**: Points to the 'Montage' dropdown menu.
- Hide channel**: Points to the 'Channel' button in the top toolbar.
- Change resolution**: Points to the 'Resolution' button in the bottom toolbar.
- Edit marker**: Points to the 'Edit marker' button in the 'Markerlist' dialog box.
- Delete marker**: Points to the 'Delete marker' button in the 'Markerlist' dialog box.
- Navigate through the EEG**: Points to the 'Go to' button in the bottom toolbar.

You have now the possibility to use all functionalities of encevis:

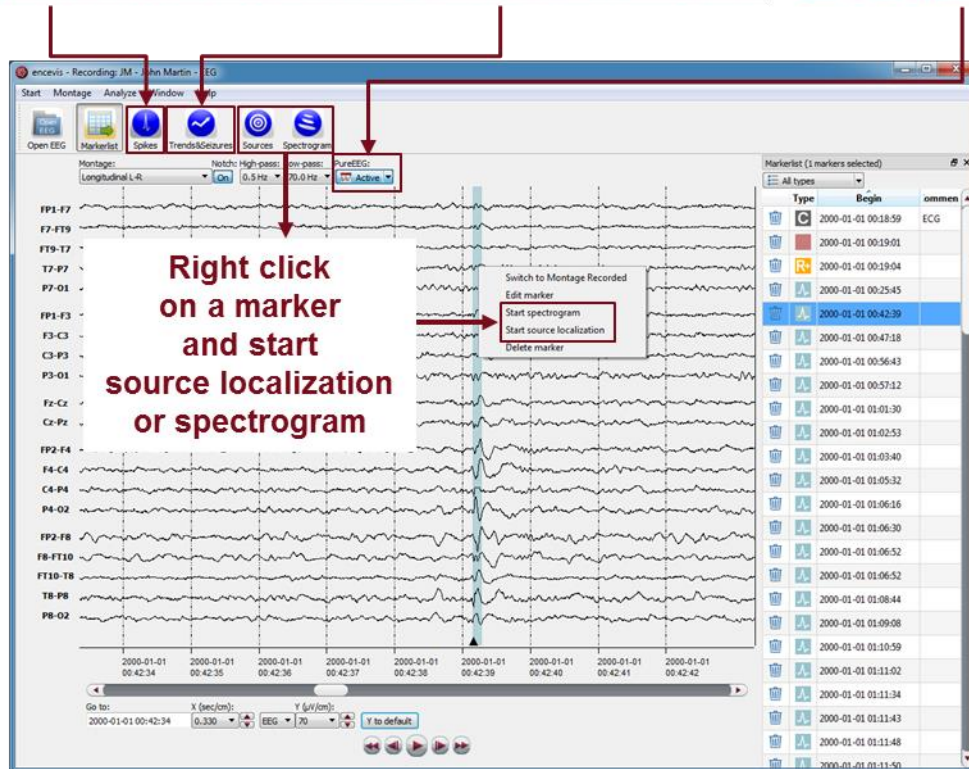
- Navigate easily through the EEG.
- Remove artefacts with PureEEG.
- Change the settings of the channels by selecting a montage and hide channels.
- Change the resolution in time and in voltage.
- Select notch, high-pass and low-pass filters.
- Watch the EEG in two windows at the same time.
- Create, review and change markers for special EEG events.
- Markers are saved in the marker list and can be reviewed anytime.
- Start automatic EEG analysis.



More information can be found under the menu point **Help > encevis Help**.

Start automatic EEG analysis

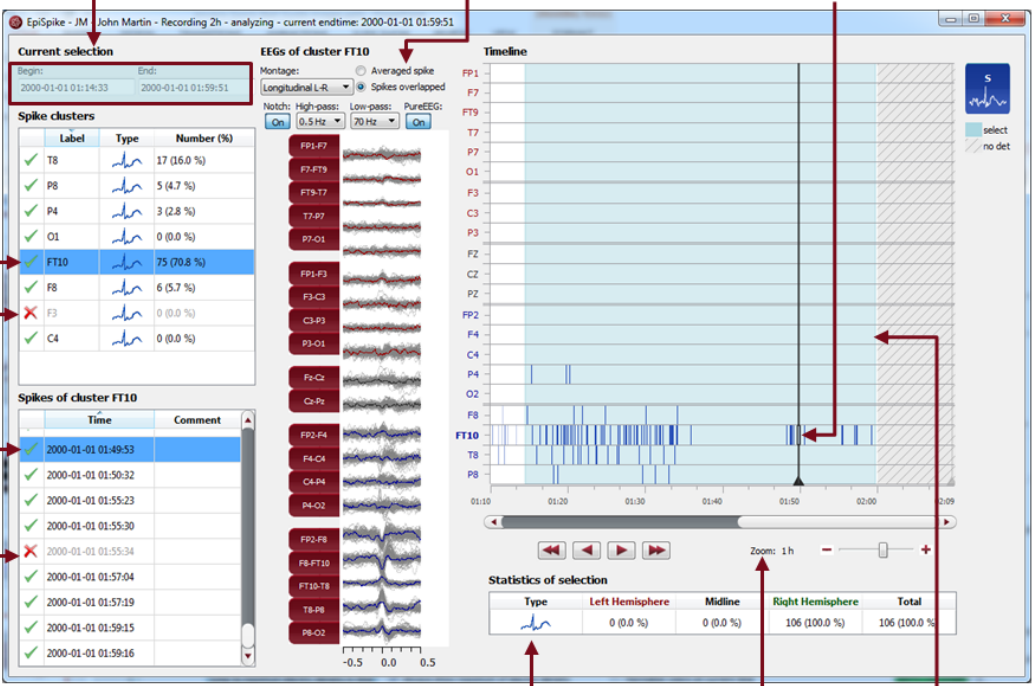
Start spike detection Start trends and seizure detection Start artifact reduction



encevis offers you a series of automatic EEG analysis tools:

- **Spikes:** the automatic spike detection detects spikes, clusters them by localization and visualizes the results for easy review in the EpiSpike window.
- **Trends&Seizures:** the advanced EEG trending calculates automatic detection of seizures, of rhythmic patterns, qEEG, aEEG, the heart rate and visualizes the results in the NeuroTrend window.
- **Seizure detection:** the detected seizures are shown in the marker list and have four different types: rhythmic, rhythmic+, tonic and tachycardia.
- **Sources:** you can easily start the source localization by right-clicking on a marker in the EEG traces. The results are shown in the EpiSource window.
- **Spectrogram:** you can easily start a time-frequency analysis by right-clicking on a marker in the EEG traces.

Spike detection - EpiSpike



Change selection

See EEG of spikes in cluster averaged or overlapped

Click on spike detections shown as colored bars

Check spike cluster

Delete cluster

Check spike

Delete spike

Read spike statistics

Zoom

Drag mouse to change selection

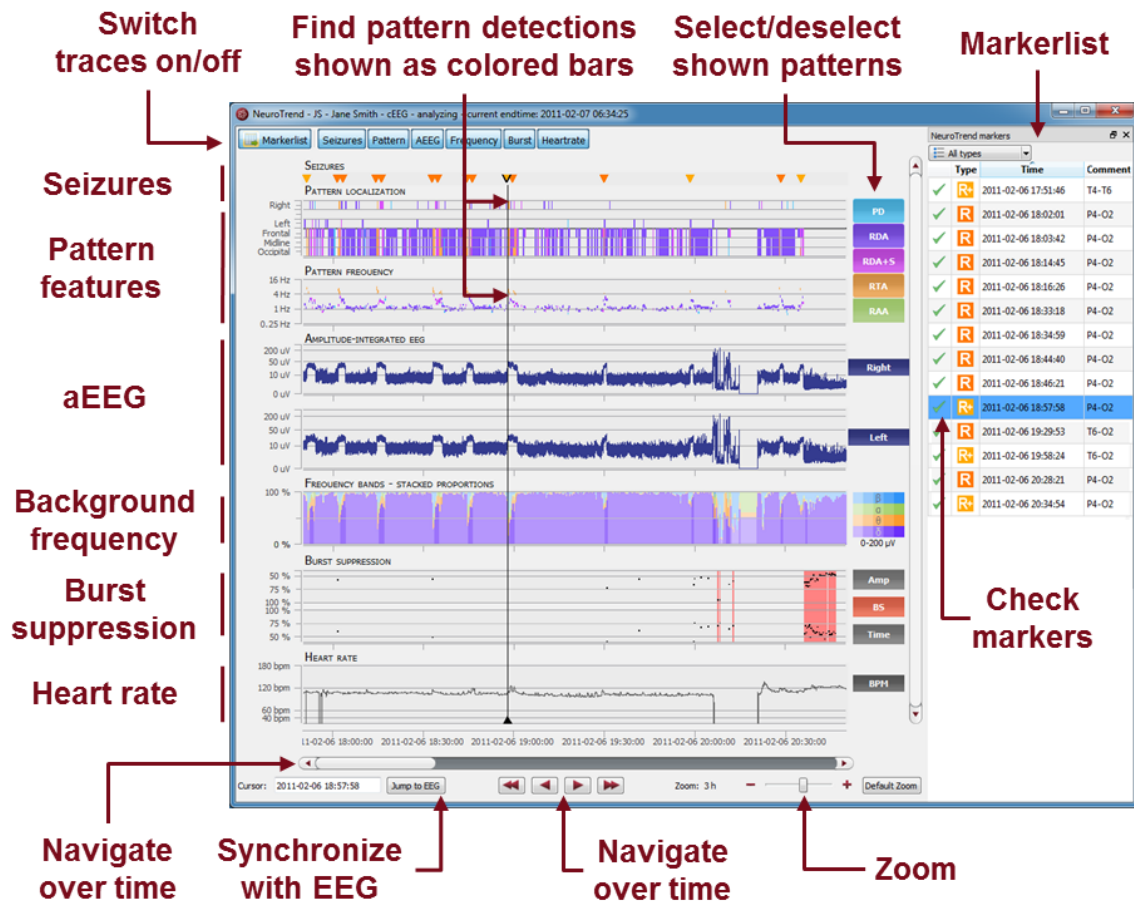
The screenshot shows the EpiSpike software interface. The 'Current selection' window displays a time range from 2000-01-01 01:14:33 to 2000-01-01 01:59:51. The 'Spike clusters' table lists clusters with their labels, types, and numbers. The 'EEGs of cluster FT10' window shows multiple EEG traces for the selected cluster. The 'Timeline' window displays a horizontal timeline with blue bars representing spike detections. The 'Statistics of selection' window shows the distribution of spike types across different hemispheres.

Type	Left Hemisphere	Midline	Right Hemisphere	Total
FT10	0 (0.0 %)	0 (0.0 %)	106 (100.0 %)	106 (100.0 %)

Start the spike detection EpiSpike and use all its functionalities:

- Start the detection on the complete time range or specify a time segment you are particularly interested in.
- Find the spike detections on a timeline as blue bars clustered and arranged by their localization.
- Zoom in and zoom out of the timeline using the mouse wheel.
- Click on a detection to see its EEG and find it in the spike list.
- Choose if you want to see the average spike EEG of the cluster or all spikes overlapped.
- Go through the lists of spike clusters and their spikes and remove detections you do not want.
- Change time of selection for review and statistics.
- Synchronize with the EEG in the EEG viewer.

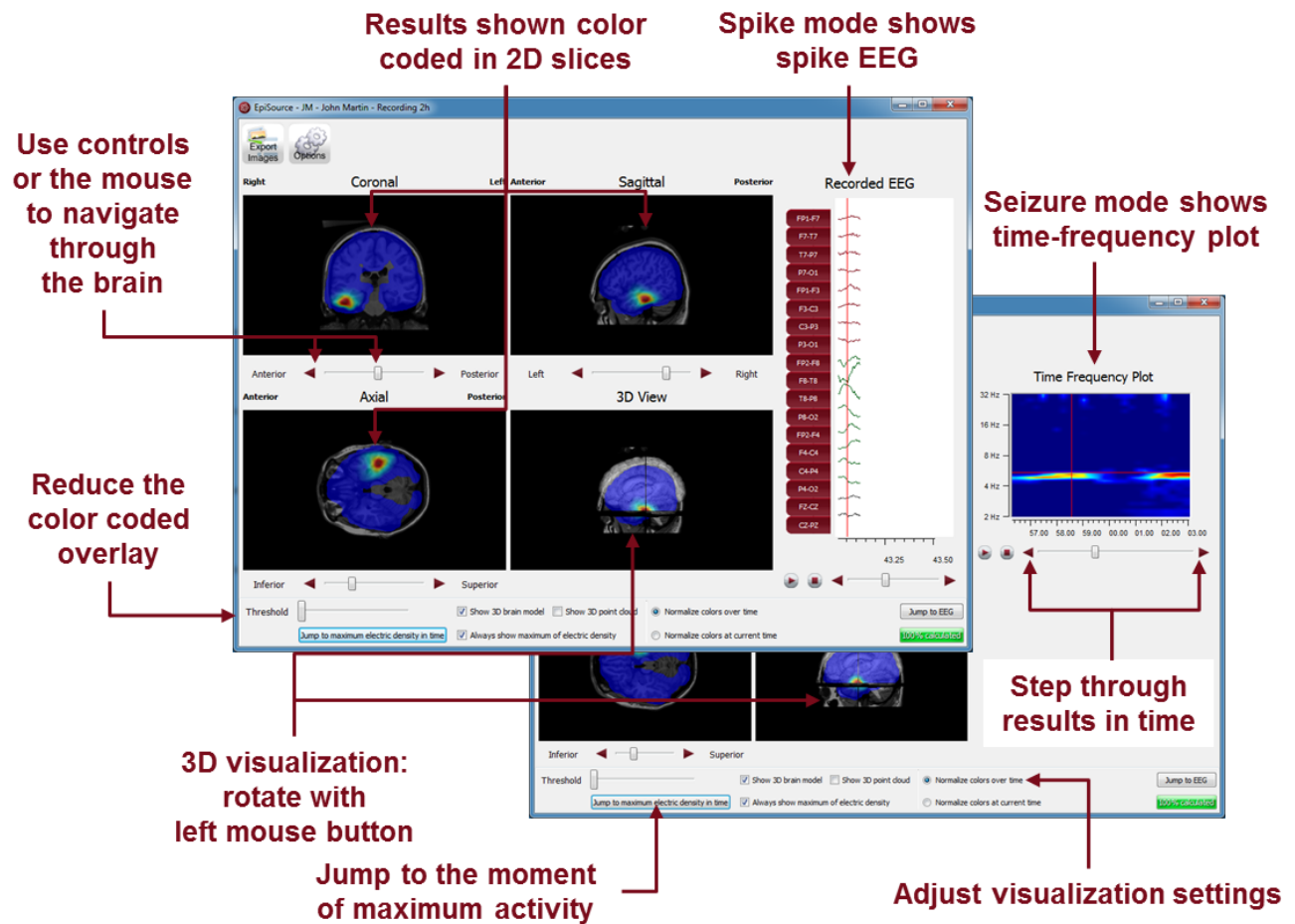
Trends and Seizures - NeuroTrend



Start the trends and the seizure detection NeuroTrend and use all its functionalities:

- Find color-coded detection of four types of seizures: rhythmic, rhythmic +, tachycardia and tonic.
- Find the detection of five different patterns: periodic discharges (PD), rhythmic delta activity (RDA), rhythmic delta activity + spikes (RDA+S), rhythmic theta activity (RTA), rhythmic alpha activity (RAA).
- Read localization and frequency of the detected patterns.
- See the amplitude-integrated EEG and the proportion of the frequencies as continuous measures.
- Find burst suppressions and attenuations.
- Read the heart rate based on the ECG.
- Navigate in time and synchronize with the EEG shown in the EEG viewer.
- Zoom in and zoom out using the mouse wheel.
- Select or deselect patterns that you want to have shown or hidden.
- Switch on/off the traces you want to have displayed.

Source localization - EpiSource



Start the source localization EpiSource and use all its functionalities:

- Choose between seizure mode (seizure markers: 1s-5min) and spike mode (spike markers: 20-500ms).
- See the results of the source localization as color-coded overlay to the structural MRI. High activity is red. Low activity is blue.
- Review the results in the three 2D slices (Coronal, Sagittal and Axial).
- Navigate through the slices using the controls or the mouse.
- Review the results in the 3D visualization.
- Zoom in and zoom out using the mouse on the screen.
- Step through the results in time or just jump to the time point of maximum activity.
- Adjust several visualization settings.
- Export the results as images.