



# Oxysoft

Provides in real time the calculation of oxy-, deoxy-, total hemoglobine and tissue saturation index (TSI)

- Applied to all of our NIRS devices
- Real time calculation of oxy-, deoxy-, total hemoglobine and tissue saturation index (TSI)
- Displays easy to understand 2D and 3D plots
- Supports simultaneous recordings of multiple devices
- Records and generates events from a wide range of sources
- All standard analysis techniques can be applied in realtime or posthoc
- Compatible with e.g. HOMER2, NIRS-SPM, FieldTrip, NIRStorm, Polhemus and more
- Exports raw data in various formats
- Enables real-time streaming of data to e.g. Matlab or Python

https://www.artinis.com/oxysoft

NIRS DEVICES X-RAY PHANTINS E / ENTS

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Oxysoft is our proprietary NIRS recording and analysis software. Oxysoft allows robust recordings even of multiple devices at the same time, in any thinkable combination. This means you can combine recordings from several Oxymons, Portamons, Portalites, and Octamons within one measurement by using just one program. All data is synchronized and stored in one data file. You can analyze your data in real-time, during the recording, or also afterward.

About Oxysoft	~
Analyse your data	<b>~</b>
All features	^

It's main features include: 1. Data collection

- 2. Import and export of Oxymon data files
- 3. Exporting can be to a text file, Microsoft Excel or XML
- 4. Import and scaling of data acquired via the optional analog input channels
- 5. Importing of data files collected with other instruments
- 6. Re-sampling of data
- 7. Filtering of data using various types of filters
- 8. Viewing of data
- 9. Calculating average, mean, standard deviation, and regression
- 10. Calculating differences between selected time-frames
- 11. Calculation of oxygen consumption, blood flow, venous saturation, and arterial saturation
- 12. Calculating averages of (block) stimuli (for functional NIR studies), including detrend function
- 13. Generating events from external inputs, very useful for functional NIRS studies
- 14. Preparing two-dimensional plots
- 15. Preparing videos of the 2-D plots, e.g. for presentations. Very useful for brain mapping!
- 16. Comparing between traces

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17. Files are collected within one project - ITS JOBS (/JOBS) analysis can be setup for all files simultaneous NEWS (/#NEWS-SECTION)

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CONTACT (/#CONTACT-HOMEPAGE-SEC190Qriginal data sets are always unaffected

- 20. Realtime data export to Matlab and other software
- 21. Offline data export to Matlab and Matlab based (SPM) software packages
- 22. Synchronisation to other software and devices

SOFTWARE INFORMATION (/S/OXYSOFT-LEAFLET.PDF)



#### **OXYSOFT EXTENSIONS**

We offer the opportunity to access extended visualization options, designed to optimize your measurement protocol, better review your results, and to optimally support your high impact neuroscience publication. The Oxysoft 3D extension can visualize your data on 3D models of the brain of the human head based on the widely used MNI templates.

With the 3D extension you are enabled to:

- Visualise your data on 3D models of the brain of the human head based on the widely used MNI templates.
- Use built-in, intuitive user-interface for the Polhemus fast-track device
- Automatically store the digitized positions of the optodes

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#### **OXYSOFT 3D & POLHEMUS**

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We have partnered with Polhemus Inc, which creates devices for digitizing objects such as the Polhemus Patriot or Polhemus Fastrack device. Using these devices you can precisely measure the position of the optodes on the subject's head. Oxysoft 3D guides you through this process with a builtin, intuitive user-interface. No third-party software is needed for this process. Alternatively, you can import digitized positions from other manufacturers such as ANT's xensor or Magstim's EEG pinpoint device. Oxysoft automatically stores the digitized positions of the optodes, and transforms and then visualizes on the integrated 3D models. This not only allows you to better review your data and results but additionally allows to report back the optode positions in MNI coordinate space.



Artinis NIRS products are intended to be used for research applications only. Our products are not sold as Medical Device as defined in EU directive 93/42/EEC. Our products are not designed or intended to be used for diagnosis or treatment of disease.

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NIRS NEWS

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