proEMG

EMG DATA PROCESSING MADE EASY

proEMG is flexible, fast and easy to use. Its extensive functionality can be fully automated, allowing you to generate results ready for printing or further analysis with only a couple of mouse clicks. Whether stand-alone or integrated with Vicon NEXUS or WORKSTATION, the proEMG Software is the perfect solution for your EMG processing requirements.

AUTOMATIC PROCESSING

proEMG is designed to let you process your EMG data as quickly and easily as possible. Using the simple yet flexible user interface, you can customize the automatic processing according to your requirements, and specify exactly which steps and parameters to include. The workflow is then used to process your clinical or research EMG data automatically, stopping only when manual quality assurance is required, before generating a report, a spreadsheet or a data file containing the results.
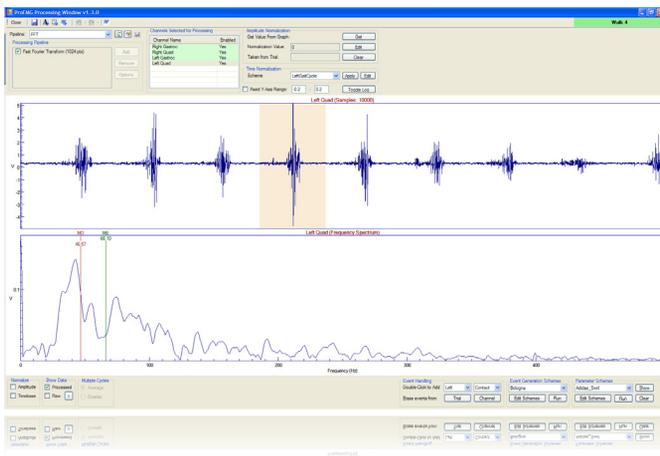
AUTOMATIC PROCESSING

FLEXIBLE SETUP

ALL THE FUNCTIONS YOU NEED

DIRECT EXPORT, E.G. TO CSV OR EXCEL®

STANDALONE

INTEGRATED WITH VICON® NEXUS AND WORKSTATION

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FLEXIBLE SETUP

proEMG is not only easy to use, it also contains the functionality to calculate all the results you need from the raw data. This includes advanced signal processing algorithms, automatic identification of key events, and derivation of key parameters. All processing is configured using an interface based on simple menus and buttons - you never have to edit complex script files or search for hidden menus. Furthermore, the interface shows a summary description of the processing in plain text, making it easy to keep track of what settings you have chosen.

EXTENSIVE FUNCTIONALITY

proEMG guides you all the way from recording the raw data to generating a report containing the results you are interested in. Signal processing options include high-pass, low-pass and notch filters, smoothing algorithms, Fast Fourier Transform, scaling, differentiation and many more - all configurable with relevant parameters such as cut-off frequencies and window sizes. Event identification is done using absolute, relative or baseline noise standard deviation-based threshold values. Finally, automatically calculated parameters include time normalized muscle onset/off/duration, integrated EMG, signal mean/median frequencies, RMS and many more. All data can be time normalized using events and amplitude normalized using an absolute value derived, for example, from a maximum voluntary contraction.

DIRECT EXPORT

Unlike other processing software, proEMG does not rely on complex file formats when exporting data. Instead, proEMG exports raw or processed data, events and parameters directly to Microsoft Excel and Word without using an intermediate file. This makes it very easy to do further analysis in Excel or to print a written report using Word. Furthermore, proEMG exports both ASCII files and C3D files, both of which can be read into 3rd party software such as MatLab. All export options can be integrated in the automatic workflow, making it possible to have a report ready for printing or a spreadsheet ready for analysis only a few seconds and mouse clicks after you finished recording the data.

STAND-ALONE OR INTEGRATED

proEMG is the only high-end EMG processing software which can be used both stand-alone and integrated with the software used to record 3D motion capture data. The plug-in version of proEMG integrates directly into the processing pipeline of the Vicon Nexus and Workstation software packages, letting you process both your motion capture and EMG data simultaneously. This saves you effort because you no longer have the overhead of using two separate software packages and transferring data between them. Moreover, events used for time normalization are automatically used to normalize both 3D and EMG data, saving you having to enter this information twice.

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