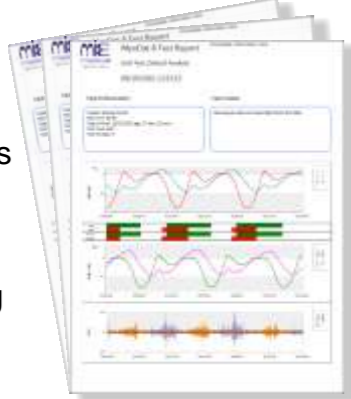


A wide range of reports can be customised with your organisation's details and logo. Reports can be printed, exported to PDF for sharing or exported to Word for editing.



Additional features:

MyoDat is able to import video and to synchronize with it. Events can be marked either by keyboard or from the MT20 transmitter unit. There is a help function and a comprehensive encyclopedia of surface EMG. If you are not sure where EMG electrodes placement should be, you can click on the integrated Muscle Map and an anatomical image of the muscle is displayed, together with a video, indicating the muscle action and sensor placement. Raw and analysed data can also be easily exported to a variety of industry standard formats for subsequent analysis in third party packages.

Software features:

- Real time display of raw EMG data and other signals for setting up purposes or monitoring
- Raw EMG and RMS EMG
- Logic display of muscle activity to show agonistic and antagonistic activity
- Automatic maxima and minima values displayed for each muscle contraction
- Integrated EMG (total and optional time base reset)
- Quantified EMG algorithm according to Spaepen
- Spectral frequency analysis for complete test and also for muscle activity only
- Power spectral density analysis with median frequency displayed for fatigue analysis
- Dedicated fatigue analysis with comparative chart facilities
- Correlation facilities in graphical and numerical format
- Numerical analysis of data can be displayed either on screen or as a print out
- Overlay facilities to combine EMG data with video camera images
- Powerful, fully searchable subject database
- Exports analysis or raw data to a variety of formats (ASCII TXT/CSV, DIF, Excel®, XML)
- User defined settings to customise analysis parameters and hardware configurations

As with all our software products, MIE offers free updates for 3 years on MyoDat 8 for Windows.

MT20 Specifications*

Input channels: 16 analogue + 4 digital
 Storage Capacity: 2GB MIE MicroSD™ card as standard
 Resolution: 24 bits (programmable)
 Sampling Rate: 18kHz (programmable, 22kHz in total)
 Physical Dimensions: 90mm x 78mm x 25mm
 Weight: 160g including memory card and battery

MT20 Receiver Specifications*

Connectivity: USB
 Input channels: 4 digital
 Output channels: 16 Analogue & 8 Digital (from Tx & Rx inputs)

Pre-Amp Specifications*

Gain: x1000
 CMRR: >120dB
 Frequency Response: 6Hz→6000Hz at 3dB
 Weight: 10g excluding cable and connector

MT 20 **COMBINED EMG MOBILE TELEMETRY AND DATA LOGGER**
 Small • Light • Versatile

- 16 Analogue & 4 Digital Channels
- Up to 18kHz Total Sampling Rate (Programmable)
- 2GB+ of Removable Storage
- Indefinite Transmission Time
- Wi-Fi Connectivity Allowing Worldwide Use
- 24-bit Resolution (Programmable)
- Unlimited Recording Time



- Heel & Toe Contact Switches
- Noise-free EMG Amplifiers
- Bespoke Transducers
- Electrogoniometers
- Accelerometers

mie MIE Medical Research Ltd
 6 WORTLEY MOOR ROAD, LEEDS LS12 4JF
 UNITED KINGDOM
 TEL: +44 113 279 3710 FAX: +44 113 231 0820
 EMAIL: MT20@MIE-UK.COM
 WEBSITE: HTTP://WWW.MIE-UK.COM



- Exercise and Sports Medicine
- Sports Sciences
- EMG and ECG Recording
- Rehabilitation
- Gait Analysis
- Industry Leading Windows® Analysis Software
- Activity Monitoring
- Evaluation of Tremor
- Physiological Studies
- Ergonomic Studies
- Behavioral Studies



Measurement is evidence

The MT-20 is a 'CLASS I' medical device. CE0120 Accuracy +/- 0.001% FSO
 *MIE Medical Research Ltd. reserves the right to alter specifications without notice.

MT20 EMG Telemetry & Data Logger

The all new MT20 has some very powerful design features that open a whole new perspective in sEMG telemetry and data logging. The MT20 can test subjects during real-time activities in rehabilitation, ergonomics or sports, including skiing, cycling and running. The MT20 uses numerous approved Wi-Fi radio frequencies, allowing researchers and clinicians to operate up to three systems simultaneously, enabling the user to collect a maximum of 48 channels. The battery operated MT20 system (including the receiver) is portable, compact and lightweight, so that it can be used anywhere, indoors or outdoors. Multiple transmitters can be used on a single subject, or on multiple subjects for simultaneous real-time monitoring.

24-bit Resolution

The new digital system has 24-bit resolution, a sampling rate of 18,000Hz with 16 analogue and 4 digital channels. The data can be stored on the 2GB MicroSD™ card or transmitted in real time via the on-board wireless transmitter. All this is crammed into a package, a fraction of the size of any of our competitors.

Unlimited Recording Time

A unique feature designed into the MT20 is the “hot-swap” battery facility. The main battery can be changed without interrupting data collection. This is especially useful when using it in the data logger mode for long term tests.

Versatile Operation

The MT-20 has been designed so that it can be used in telemetric mode, data logger mode, or both, depending on your requirements. It comes with an 2GB MicroSD™ card as standard, which can be easily removed from the unit, allowing data to be quickly transferred to the PC and also allowing different projects and settings to be pre-programmed.

Easy Video Synchronisation

The MT20 can be synchronised to video instruments either directly when used in the telemetric mode, or via the on-board I/R LED. Synchronising the LED, as seen on the video with the recorded data is automatic when used with the Myo-Dat 8 software package.



Flexible Connectivity

The receiver is powered via the USB interface which also provides the data link to the PC. For maximum connectivity to existing motion systems, analogue outputs are provided through a single “D” connector. An LED indicates power and data status.

The external antenna can be removed so that either a fixed position antenna (for use in the lab) or high gain directional antenna can be used in the field.

Accessories

MIE also produces customised accessories to suit particular applications. These include input preamplifier modules for the amplification of weak biopotential signals, such as EMG and ECG, near the signal source. Other transducers include electrogoniometers to measure joint angles, foot switch encoders to measure heel and toe contact times, accelerometers and strain gauge amplifiers. MIE also design and manufacture bespoke transducers.



MyoDat

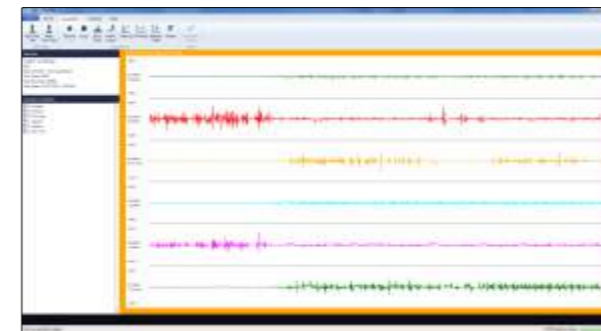
Myo-Dat for Windows starts with a powerful database that is only limited by the size of your hard disk. This database is fully searchable and allows you to create your own subject groups or searchable parameters.

Myo-Dat for Windows is a powerful data acquisition & analysis software package. Although primarily designed for data capture and analysis of EMG, it can also display the results from any number of other analogue signals such as physiological, physical or industrial transducers, providing a wide range of applications.



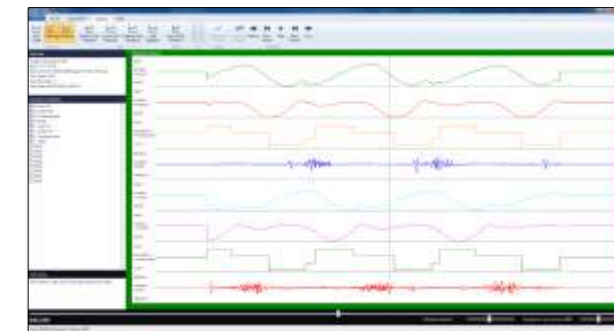
Patient Selection

MyoDat is very intuitive, from initial set-up through to analysis. You can start data collection by either selecting a predefined sensor protocol, or defining a new protocol for your transducer selection, sampling rates and number of channels to be used. Once the protocol has been selected, a live display is presented on screen.



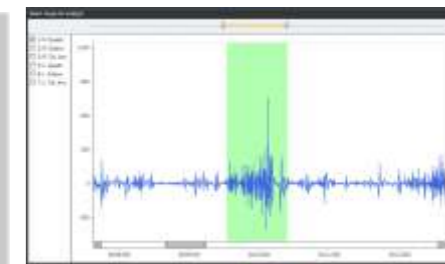
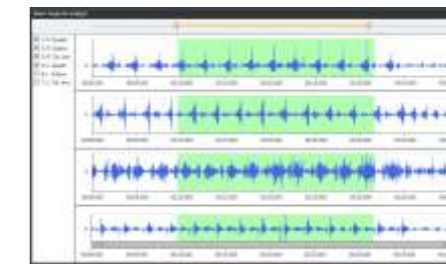
Live Preview

Capturing the data is a simple click away. The captured raw data can then be replayed in real time, in slow motion or even frame by frame.



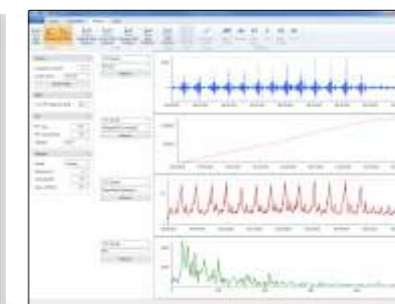
Data Playback

Any signal can be displayed in full using our unique “rapid loading” technology. This allows vast amounts of data to be quickly viewed. The raw data can be zoomed and panned to an area of interest for more detailed analysis.



Zoom, Pan & Select Area of Interest

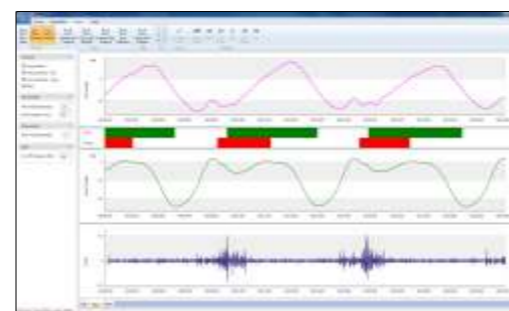
Detailed analyses of any EMG signal can be performed.



Raw and Analysed EMG

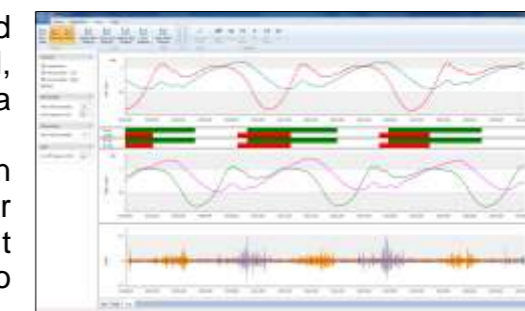
Analysis includes:
Filtered or raw data
RMS
Enveloped
Rectified
Integrated
Quantified
FFT, PSD,
Fatigue analysis
Wavelet analysis.

Raw and analysed data can be performed in separate windows or overlaid within the same window for comparison.



Gait Right Side only

Gait Analysis can be performed by using the pre-set protocol, together with the optional extra hardware. This option provides information on hip and knee angles, together with heel and toe contact times. It can also be combined with up to 10 channels of EMG data.



Gait Left and Right Side Overlaid

Gait parameters such as cadence, stride length, step length, ranges of motion and much more are automatically calculated.