

# Cascade<sup>®</sup> MAX<sup>™</sup>



Surgeries are inherently risky, especially those that involve the brain, spinal cord or nerves. Intraoperative neurophysiological monitoring (IONM) is performed during many different types of surgeries to reduce the risk of devastating, irreversible neurological deficits, such as muscle weakness, loss of sensation, hearing loss and impairment of essential bodily functions.

IONM involves multi-modal recording of electrical potentials from the nervous system during operations to detect adverse changes, enable corrective action, and offer surgical guidance.

**CADWELL'S NEW CASCADE® IOMAX™**

**WITH SURGICAL STUDIO SOFTWARE,**

the culmination of nearly two decades of  
innovation, experience and investment,

**IS THE FUTURE OF IONM.**



**CADWELL®**

Helping you help others

# Cascade<sup>®</sup> IONMAX<sup>™</sup>

*A comprehensive solution for patient-centered IONM care.*





***The modular design of Cascade® IOMAX™ lets users tailor each IONM setup to the specific requirements of each surgery.***

**Cortical Module.** Designed for recording and stimulating at or near the patient's head, with 16 channels, TCS-9 for dynamic montaging of transcranial MEPs, and Low Current, Auditory and Visual Stimulation. Optional extender pods provide flexible positioning.

**32 Channel Amplifier.** Expand EEG and phase reversal SSEP recording capabilities with additional channels.

**Limb Module.** Designed for recording and stimulating the arms and legs with eight recording channels, 5 paired E-Stim outputs, SpO<sub>2</sub> and Heart Rate.

IOMAX systems are scalable from eight to 80 channels.

- Use the Cortical Module on its own
- Configure one 32 Channel Amplifier independently or in combination
- Add up to four Limb Modules via the Cortical Module, or up to two Limb Modules independently

**Base Module.** Provides power and communication via a single SafeT™ Cable to the OR table, and allows Trigger In/Out interfacing with third-party devices.

**LCSwap.** Comprehensive switch matrix solution for direct cortical stimulation. Twelve outputs can be independently assigned as anode or cathode; includes two paired outputs for hand-held probes.



***IOMAX™ is a compact, robust system designed to withstand daily use and the environmental hazards of the operating room.***



Cortical and Limb Modules are drop tested and waterproof.



A configuration to meet every clinical need, simple or complex.



**SpO<sub>2</sub>**  
Measure pulse oximetry and heart rate from up to four limbs.

**SafeT™ Cables**  
Waterproof and completely interchangeable between Modules with color-coded quick-release metal connectors.



Mount Modules to the OR table with rail brackets and clamps. Easily insert and remove electrodes with the Quick Adapt.



**Pelican™**  
**carry-on case**  
TSA-approved lock. Sturdy and secure. Accommodates up to a 80-channel IOMAX system.



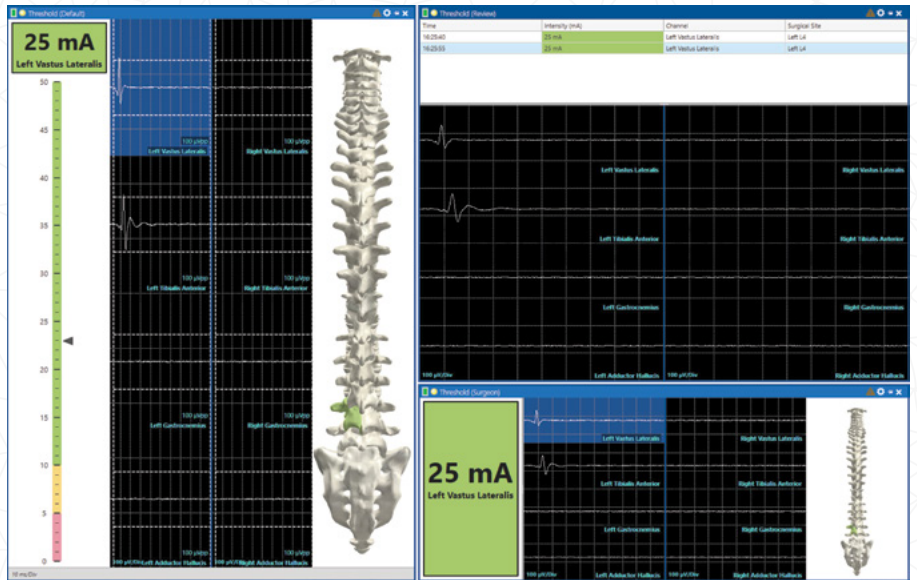


# SURGICAL STUDIO

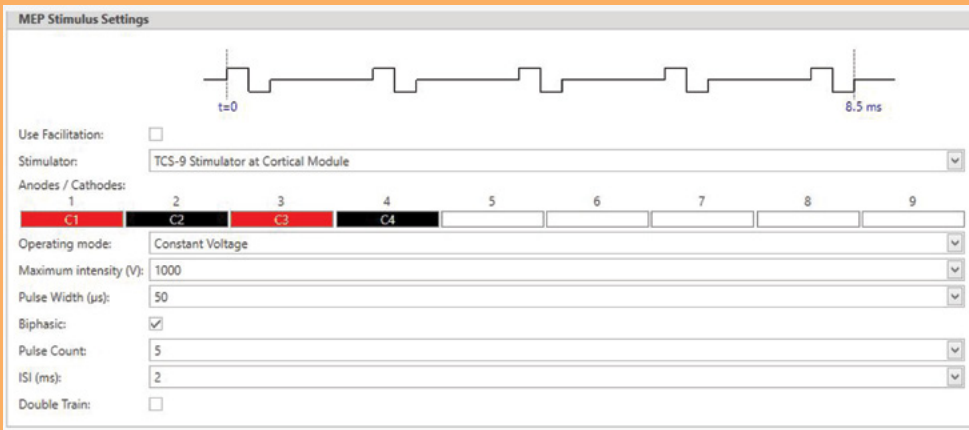
**Cascade® Surgical Studio software offers an intuitive user interface.**

## Streamline your workflow

- Switch users during a case to log involvement and apply settings without interrupting data acquisition.
- Seamlessly share and manage data and resources across your organization.
- View live and saved data side-by-side and never miss critical information.



*Efficiently pinpoint responses with Automatic Threshold mode.*



*Use TCS-9 dynamic montaging to achieve optimized MEP results for each patient.*

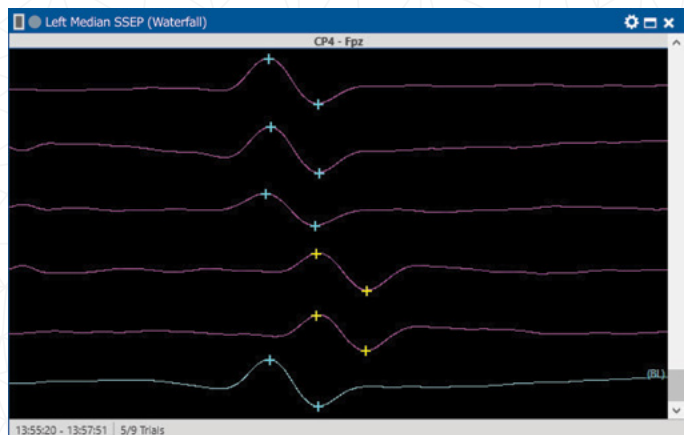
## Deliver clinical excellence

- Achieve quick and intuitive direct cortical stimulation with strips, grids, and/or probes using the software-driven switch matrix.

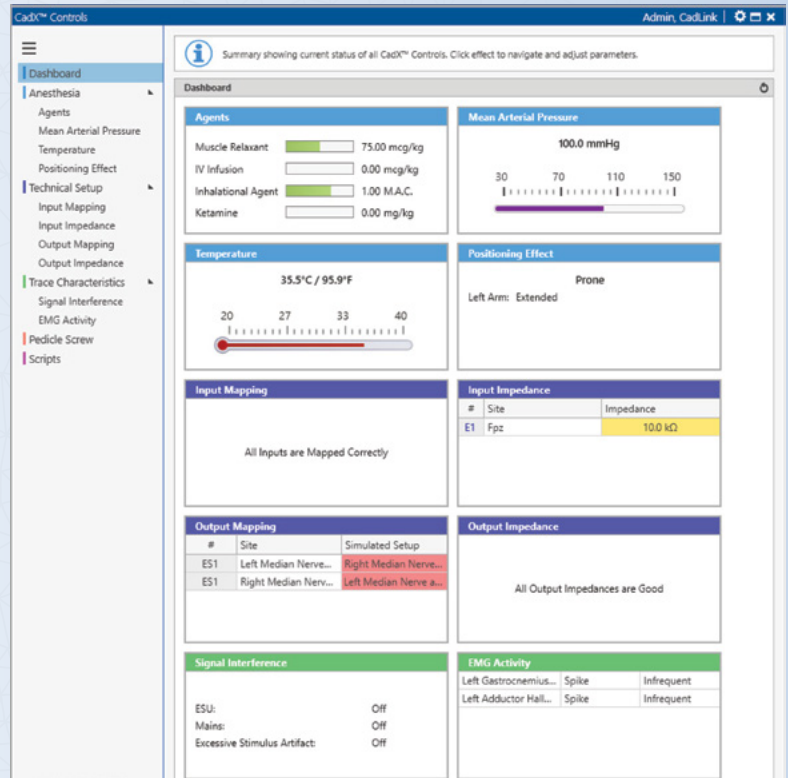
## Capture Critical Information



- Automatically capture screenshots with every User Event entry.
- Save the previous 30 seconds of EMG with Store Buffer.

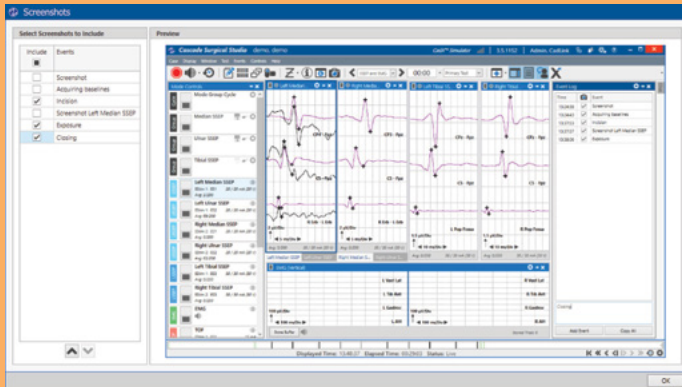


*Set up color-changing amplitude and latency cursor alerts.*



## CadX Simulation Software

- Simulate realistic data demonstrating anesthesia, technical and surgical effects.
- Manipulate patient control panel to create real-world scenarios for demonstration and assessment purposes.
- Train or teach using the same procedure setups and software tools used in the OR.



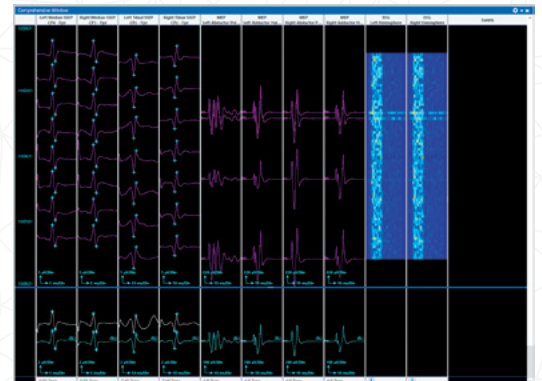
Choose screenshots to include in reports.

## Strengthen documentation

- Standardize demographic data collection.
- Enter comments just by typing.
- Choose whether to save the Chat Log.

## Stay connected

- Remote monitoring and integrated group chat are powerful tools for communication with colleagues during surgery.
- Reviewers have their own display settings and the ability to add to the Event Log and capture screenshots.
- Set up CadLink™ information management to automatically interface with EMR or HIS to import patient demographics and export results and reports.



Get a birds-eye view of the case with Comprehensive Window



Cadwell is dedicated to developing industry-leading IONM solutions to help you help your patients.

## THE CADWELL STORY

John Cadwell, BSEE, MD, saw a need for innovative and reliable neurophysiology instruments during his residency at the University of Washington School of Medicine.

John combined his experience in electrical engineering and medicine to design the world's first microprocessor-controlled EMG instrument. Together with his brother, Carl Cadwell, DDS, John formed Cadwell Laboratories in 1979.

In the 1980s, Cadwell developed the best-selling 5200A EMG and the Spectrum 32 EEG.

In the 1990s, Cadwell's Sierra took over the EMG line and Cadwell introduced Cascade IONM and Easy EEG.

In the 2000s, Cadwell developed the industry's best integrated report generator and introduced Easy PSG. We introduced Cascade Surgical Studio for Cascade IOMAX, and continue to support Cascade PRO.

Lately, we have expanded our headquarters and opened offices in China, Singapore, the Netherlands, and United Arab Emirates. Our global sales and support teams help physicians and medical centers worldwide help their patients.

Today, our brands include Arc EEG, LTM and ICU cEEG; Cascade® IONM; Sierra® EMG and EP with integrated ultrasound; Easy® PSG, and CadLink™ data management.

**Cadwell is staying true to its mission: helping you help others.**

*Cadwell has a strong history of supporting customers. Please discuss service, support, warranty, and training information with your sales manager or distributor.*

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**p** 1300 934 947 **f** 1300 734 712  
**w** [www.symbioticdevices.com.au](http://www.symbioticdevices.com.au)  
**e** [team@symbioticdevices.com.au](mailto:team@symbioticdevices.com.au)  
**a** Unit 6, 105-111 Ricketts Road  
Mount Waverley, VIC 3149

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