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Surgery Tip
To help maintain a sterile field during stereotaxic surgery, use Tegaderm™ to cover the stereotaxic movement knobs. Tegaderm™ sheets can be added during the sterile field setup, and the slightly adhesive pieces can be readily applied by the surgeon using sterile gloves. This will extend the sterile field to allow for easy manipulation of the stereotaxic arms during implantation without the need to re-glove.

Technical Question
What is the recommended method for scoring data using Sirenia® Sleep Pro?
Sirenia® Sleep Pro offers two automated tools for scoring sleep data: threshold scoring and cluster scoring. Both methods rely on power spectral analysis. Threshold scoring allows users to set parameters or “rule sets” to define power boundaries in one or more channels. This method is useful for visualizing changes in the spectral bands over time and can be used to rapidly score state changes over long time periods. Cluster scoring is used to manipulate the data into a variety of configurations, allowing the user to construct direct comparisons between spectral bands (e.g., EMG power and Delta/Theta ratio). This provides individualized views of the data that can be segregated and scored based on user-
defined boundaries, providing a "fine-tuning" of the scoring parameters for each individual animal. While both threshold scoring and cluster scoring can be used independently, combining the two methods results in a powerful approach to rapidly and individually tailor scoring parameters and can increase scoring accuracy over one technique used alone.

More on Sleep Pro

Call for Posters
Many Pinnacle customers regularly present their scientific work at conferences and meetings throughout the year. We would love to share your research with other users of Pinnacle products and systems. Please help us continue to advance neurophysiological studies by allowing us to host your previously presented posters on our website. We will increase the visibility and impact of your research by sharing it with a global community.

Please email us if you are willing to share your research.

Comments
Have a technical question that needs answering? Suggestions for future issues? Let us know what you want to see in our newsletter by emailing us at sales@pinnaclet.com. We'd love to hear from you!

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The latest release of Sirenia® (Version 1.5.0) integrates Pinnacle’s X-Y Tracking software across all Sirenia® platforms, which allows the software to be used in conjunction with our acquisition, sleep, and seizure modules. Sirenia® X-Y Tracking tracks locomotor behavior in real time or in previously recorded video data. The software is compatible with tethered and wireless animals. Click here to learn more about this innovative tracking software.

Download Sirenia® 1.5.0
Try Sirenia® X-Y Tracking for FREE

Fast Scan Cyclic Voltammetry
We received valuable feedback from our fast scan cyclic voltammetry (FSCV) customers and used that feedback to make important changes to the system’s PAL-8500 software. The biggest enhancement, available now in Version 1.2.5 of the software, is import and export functionality with third-party packages, such as HDCV Analysis. In addition, the update incorporates annotation jumping and session saving, which allows users to navigate files and retrieve data with ease. Click here to learn more about our FSCV systems.

Download PAL-8500 (V 1.2.5)

Recent Grants
Over the years, Pinnacle has been actively involved in the Small Business Innovation Research (SBIR) and Small Technology Transfer Research (STTR) programs,
primarily through the National Institutes of Health (NIH) and Department of Defense (DoD). We are grateful for the support. Our participation in these programs has led to the development of a wide range of innovative products that are now available for your research. In addition to developing new tools, we have had the pleasure of forging collaborative relationships with leading academic researchers. The projects that we are working on now will result in new tools that will be available in the near future. Our current projects include the following:

A nicotine biosensor for addiction studies
NIH/NIDA  2R44 DA033701-02A1
Collaboration: University of Kansas

A turn-key optogenetics and electrophysiology measurement system
NIH/NIA  1R43AG046030-01A1

Applications and methods for continuous monitoring of physiological chemistry
DARPA W31P4Q-14-C-0015
Collaboration: University of Kansas

$1,000 Winner
Karen Boschen of the University of Delaware was the winner of $1,000 in Pinnacle products for our drawing at Neuroscience 2013.

Conferences
We’re looking forward to another year full of exciting conferences and events, including the following. Visit our website for a complete schedule.

APSS SLEEP MEETING 2014
May 31-June 4 in Minneapolis, MN

ADA 74TH SCIENTIFIC SESSIONS
June 13-17 in San Francisco, CA

FENS FORUM OF NEUROSCIENCE
July 5-9 in Milan, Italy

NEUROSCIENCE 2014
November 15-19 in Washington, DC

AES ANNUAL MEETING 2014
December 5-9 in Seattle, WA

Employee Spotlight
Dave Johnson, Chief Technology Officer, oversees all engineering and software development at Pinnacle. Dave and Donna Johnson (CEO) are the brother-sister team who co-own Pinnacle. Since 1996, Dave has worked with the engineering team to develop numerous projects into commercial products. Despite being an integral part of Pinnacle, Dave modestly claims that he works in the background and is occasionally allowed to regale fellow employees, customers, and passersby with decades-old golf stories. “I’ve got the game figured out,” he says. “You stop playing and just tell everyone how good you used to be.”

Before Pinnacle, Dave received an MS and PhD in Electrical Engineering. These degrees were earned at North Carolina State University and Arizona State University, which causes Dave to continually lose the office March Madness bracket pool (“Go Wolfpack!”). His college research centered on semiconductor physics, specifically Gallium Arsenide, “the semiconductor of the future,” he jokes. Since then he has assisted development projects in both academic and industrial settings, including as a tenured professor at Kettering University and as senior process engineer for Microchip Technology.

These days, Dave enjoys spending time with his wife, Maureen, and their two children. “The kids are wonderful!” he says. “We are always juggling school, sports, and other activities. Sometimes Maureen and I find ourselves communicating by cell phone, but I wouldn’t change a thing.”

Recent Publications
For a complete list of publications by Pinnacle customers, visit our website at http://www.pinnaclet.com/publications.html.

Seizure Publications


**Sleep Publications**


**Other Publications**


Have you recently published an article that isn't listed? Email us, and we'll include your article in our next newsletter.