Volume 1, Issue 3

July 16, 2009

MetaMatters

NEW! MetaMorph® Software 7.6.2

MetaMorph® software, which is compatible with MDS Analytical Technologies line of cellular imaging products, has many great new features in the 7.6.2 update. The update is available on the website at: www.meta.moleculardevices.com/updates.

The new AutoAlign Application Module can help compensate for stage shift, vibration or similar small whole field movement that can occur during a time-lapse. AutoAlign can be used on a stack of time-lapse images or on a Multidimensional Data set. The user selects which wavelength to perform the alignment on and MetaMorph® software will apply the same translation to all the other wavelengths. For multi-Z time-lapses, the alignment is performed on the best focus image and each plane is shifted by that amount. For data sets that contain multiple stage positions, the user has the option of applying the shift to all stage positions based on a selected position.

Additionally, new camera drivers for the Andor Clara, the Photometrics Evolve and the QImaging Retiga Exi Blue are now available in the latest update. The Lumencor Light Engine illuminator can also now be controlled through MetaMorph® software. Visit our website often for updates to compatability at: support.meta.moleculardevices.com/hardware/hardware.

Availability

MetaMorph® software can be purchased through an MDS Analytical Technologies distribution partner. A listing of distributors is available at: www.moleculardevices.com/pages/distributors.

Do you want FREE MetaMorph® Software? ... *You do?*

Do you have an image that you feel is a "work of art"? ... *You do?!?*

We at MetaMorph® software would like to give you the opportunity to have your artistry seen by the world, with full credit given to you! And in exchange, we would like to give you…for FREE…a MetaMorph® basic offline software package. Yes! Really! In exchange for giving us the unlimited rights to use your fully credited image in advertisements and brochures, you will receive a FREE MetaMorph® basic offline software package!

For more information, please contact Mary David at mary.david@moldev.com.

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MetaTool Tips:

F1 Help: Help on Current Function – Provides help on the active dialog box. The Help menu provides access to the Meta Imaging Series® products online help, as well as support options and information about your version of MetaMorph® software.

Introducing Neal Gliksman...

The next free MetaMorph® Software Basics training course is October 27 & 28, 2009!

Neal Gliksman is a senior application scientist on the customer support team who has been with the Meta Imaging Series® product group for 13 years. In his customer support role, he has helped many current users find the best way to make use of their Meta Imaging Series® software and get the most out of their images. Neal is extremely patient and is very easy to talk to…so contact him, or any of our other customer support personnel, the next time you need help with your Meta Imaging Series® software!

Neal Gliksman, Ph.D.

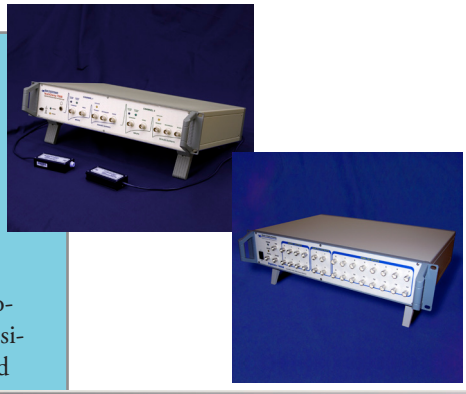
MetaMorph® software customers…it's your choice!

The free MetaFluor® Software training course is September 15, 2009!

You as customers now have the opportunity to choose where you get your MetaMorph® products and services. All listed partners are non-exclusive, meaning you can work with the organization of your choice. The latest list of distributors can found at:
http://www.moleculardevices.com/pages/distributors.html
If you have any questions, feel free to contact customer support at 800-635-5577 or email info@moldev.com.

pCLAMP® software and MetaFluor® software

MDS Analytical Technologies conventional electrophysiology products include Axon™ microelectrode amplifiers, digitizers, electroporator and data acquisition and analysis software. Recognized as the gold standard for patch-clamp applications, MDS Analytical Technologies product portfolio features the fully computer-controlled MultiClamp 700B and ultra-low-noise Axopatch 200B amplifiers, the versatile Axoclamp 900A current- and voltage clamp amplifier, the proven performance of the Digidata 1440A USB digitizer and the superb configurability of pCLAMP® 10 software.

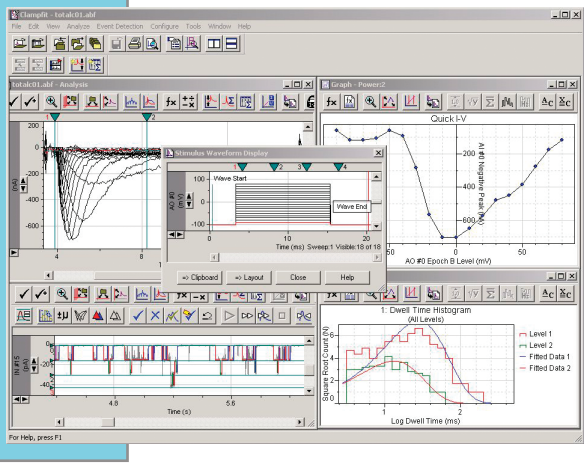


The pCLAMP® 10 software suite fulfills many different experimental needs, such as synchronized stimulation, event detection and online analysis. It is the most widely-used data acquisition and analysis program for the control and recording of voltage clamp, current clamp and patch clamp experiments. A SoftLink between pCLAMP® 10 and MetaFluor® 7 software enables concurrent acquisition of patch clamp and fluorescent imaging data giving two-dimensional imaging experiments yet another dimension of information. Depending on your experimental needs, either pCLAMP® or MetaFluor® software can be configured as master or slave to control data acquisition.

Technical note T20059 on how pCLAMP® and MetaFluor® softwares work together can be found at support.meta.moleculardevices.com/docs.

pCLAMP® software can be purchased through MDS Analytical Technologies.

MetaFluor® software is available through our distributors:
www.moleculardevices.com/pages/distributors.



IN BRIEF: How Journaling Works

by Neal Gliksman, Ph.D., Senior Applications Scientist, MDS Analytical Technologies, Downingtown, PA

What is a journal?

Journals are macros in a language specific to Meta Imaging Series® software and are stored as files with the extension ".JNL." Many other software programs utilize macros, but there are certain features that make Journals special.

Why are journals used?

Journals are used to simplify complex tasks.

- correct the background of an image
- calculate a threshold level
- create a binary mask of the image
- manipulate the binary mask to remove extensions
- apply the mask to the original image
- count the number and length of extensions

Journals can also be used to simplify repetitive tasks.

- measure the thresholded area of multiple images
- count the cells in multiple images
- measure the intensity at a certain distance from the centroid of each object in an image

Journals can be executed.

- for every position in a screening sample
- for every image in a directory
- for every plane in a stack
- for every region on an image
- a specified number of times
- until a condition is found to be either true or false

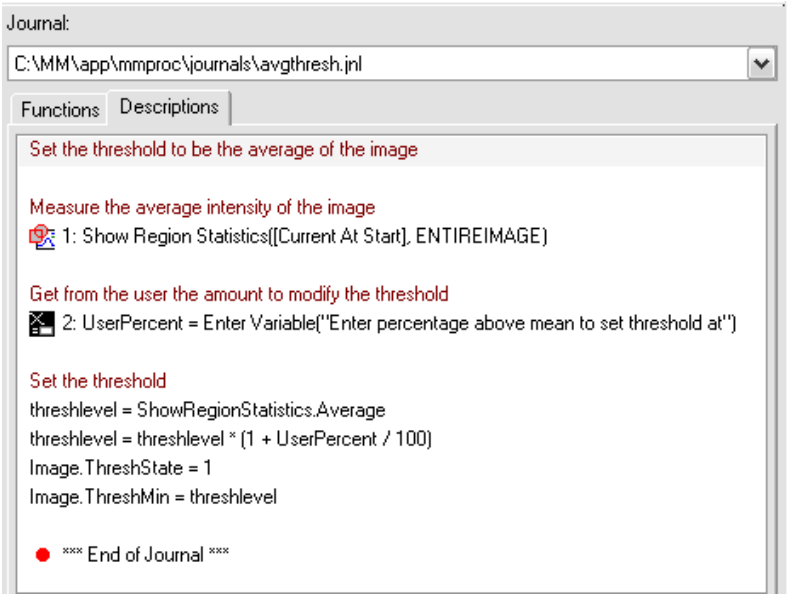


Fig 1: Example Journal demonstrating how to average the threshold level.

Journals can be used to collect important information from the user about the experiment. This information can be added to image annotations and stored with the experimental data.

How are journals executed?

Journals may be executed by pushing a button on a taskbar. A custom taskbar is configured using the Taskbar Editor so that a button is assigned to the journal. This operation is often used to run a journal that needs to be run once before a full assay (journal) is executed in Plate Data Utilities or Review Plate Data. A taskbar may also be used to walk the user through multiple journals in a set specific order. Other methods of executing journals include the Run Journal function or one of the Loop functions in the Journal menu.

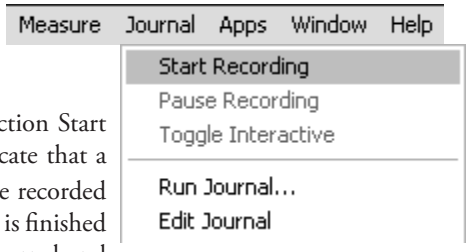


Fig 2: Journal menu for creating and editing a journal.

How are journals created and edited?

One way journals can be created is by placing the software into "Record Mode," using the function Start Recording in the Journal menu. When this occurs, the top of the application window will indicate that a journal is being recorded by showing [Recording]. Nearly all of the subsequent operations will be recorded into the journal until either Pause Recording or Stop Recording is chosen. When journal recording is finished (by choosing Stop Recording in the Journal menu), a dialog box will ask whether to save the journal and then add it to a taskbar. Once journals are created, they may be edited using the Edit Journal function in the Journal menu. This function opens a journal file to look at in the Journal Editor.

This is a brief excerpt from the MetaMorph® Software Basic Analysis Guide which can be found on the website at: support.meta.moleculardevices.com/docs.

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MetaMorph® software...the gold standard in research imaging.

We're on the web!
MetaMorph.com

About MetaMorph® Software

MetaMorph® software is the leading, world-class image acquisition and analysis software. Combining the most flexible and powerful tools for image acquisition, processing and analysis, MetaMorph® software offers a complete solution for even the most demanding live-cell imaging needs.

FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES.

About MDS Analytical Technologies

MDS Analytical Technologies, a business unit of MDS Inc., is focused on the research, design, manufacture and marketing of state-of-the-art tools for mass spectrometry, drug discovery and bioresearch. MDS Analytical Technologies' products are designed to help accelerate the complex process of discovering and developing new drug compounds, and are sold to research scientists around the world. The mass spectrometer product lines are also sold globally through joint ventures with two of the world's leading analytical instrumentation and life sciences companies, Applied Biosystems, Inc. and PerkinElmer, Inc. Find out more at www.mdssciex.com or www.moleculardevices.com.

About MDS Inc.

MDS Inc. (TSX: MDS; NYSE: MDZ) is a global life sciences company that provides market-leading products and services that our customers need for the development of drugs and diagnosis and treatment of disease. We are a leading global provider of pharmaceutical contract research, medical isotopes for molecular imaging, radiotherapeutics, and analytical instruments. MDS, Inc. has more than 5,500 highly skilled people in 29 countries. Find out more at www.mdsinc.com or by calling 1-888-MDS-7222, 24 hours a day.

SOURCE: MDS

Upcoming Training, Courses and Conferences

August 11 – 12, 2009
Fundamentals of MetaMorph® Software, Downingtown, PA

September 15, 2009
Fundamentals of MetaFluor® Software, Downingtown, PA

October 27 – 28, 2009
Fundamentals of MetaMorph® Software, Downingtown, PA

October 29 – 30, 2009
Advanced MetaMorph® Software, Downingtown, PA

June – August, 2009
Summer Courses
Woods Hole, MA

October 6 – 15, 2009
OMIBS
Woods Hole, MA

November 3 – 16, 2009
Immunocytochemistry, In Situ & Live Cell Imaging
Cold Spring Harbor, NY

October 17 – 21, 2009
Society for Neuroscience
Chicago, IL

December 5 – 9, 2009
ASCB
San Diego, CA

MetaMorph® products @ QFM, 2008

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