MDPlot Version 5 Microscope Digitizer Software

MDPlot Version 5 software from **AccuStage** automates the acquisition, display, editing and analysis of data from the MD3 Microscope Digitizer.

With MDPlot 5 you can easily trace outlines or mark locations of objects using selected symbol types and colors while viewing your specimen through the microscope.

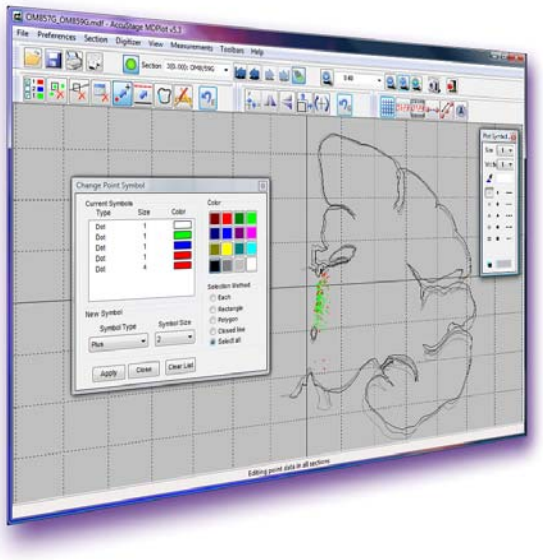
Results are displayed on your computer screen as you work. On-screen editing functions let you interactively change symbol types and colors of points and lines. Create tracings of multiple sections, sort them by Z-coordinate and view them in depth-cued order.

Data can be translated, rotated and scaled. Special registration points can be entered for each section and used to align adjacent sections.

Measurements functions include counts of points, counts of points per unit area, distances, line lengths and computation of areas.

Features of Version 5:

- Fully compatible with Windows XP, Vista and Windows 7.
- Automatic "plug-and-play" detection of MD3 serial port.
- Imports MDPlot 3.x and 4.x data files.
- Single point or stream mode of input from the MD3.
- Ten different point symbols and five line symbols.
- User specified symbol sizes and line widths.
- Sixteen color palette for selecting symbol and background color.
- Automatic detection of duplicate point entries.
- Recording of registration point data for section alignment.
- Prints in color or B&W to any Windows compatible printer. Print Preview feature.
- On-screen editing of symbol types, line types and colors.
- Screen capture to disk file in BMP, GIF, JPEG or PNG image format.
- Geometric transformations including translation, rotation, scaling, flipping and section registration.
- Measurement of counts, areas and counts per unit area by symbol type and color.
- Storage of measurement data in tab-delimited format.
- Export of data in MDPlot ".obj" format.
- Plug-in for Adobe Illustrator lets you import MDPlot data directly into Illustrator (Illustrator version 11 or higher).
- Applications programming interface for adding your own functions. Software Development Kit supplied at no extra charge.



Overview:

Major function categories in MDPlot 5 include *File I/O, Preferences, Section Selection, Digitizer I/O, Status & Values, Data Editing, Geometric Transformations, Print Output, Measurements* and *Help*.

MDPlot 5 lets you view individual or multiple files (sections). Sections can be edited individually or as a group. Data from the MD3 Digitizer can be assigned to a new section or added to a previously recorded section. During data acquisition, a change of point symbol, line symbol or color is as simple as clicking on an icon or pressing one of the keys on the MD3 keypad.

Convenient toolboxes are provided to edit data, change symbols and colors, and to transform coordinates using combinations of translation, rotation, scaling and flipping. Special section registration functions include alignment to a single x, y coordinate or alignment to two points using translation, rotation and scaling.

Measurements are performed by interactively selecting symbols from the screen and saving results in an on-screen spreadsheet. Spreadsheets are saved to disk in tab-delimited format for import to popular spreadsheet software.

Supplied on CD-ROM, MDPlot 5 runs under Windows XP, Vista or Windows 7. It requires a Microsoft compatible mouse, and at least 1280 x 1024 graphics. Disk storage requirements are approximately 30 Mbytes. Prints to any Windows compatible printer. Manual supplied in hardcopy and Adobe Acrobat PDF formats. Software updates are available at www.accustage.com.

For more information: E-mail: info@accustage.com Web: www.accustage.com
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Microscope Digitizing Systems for Research

The MD3 Microscope Digitizer and MDPlot Software.

Versatile, easy to use and affordable tools for measuring and analyzing coordinate data directly from your tissue sections.

MD3 Microscope Digitizer

General features: The MD3 Microscope Digitizer from **AccuStage** is a precision electronic instrument that offers the solution to direct recording of microscope stage movements at high resolution over long distances of travel. Linear optical gratings are used to detect stage position with an accuracy and repeatability of 1.0 micron (MD101 Optical Encoder). Since the encoders are attached directly to the stage, backlash and other inaccuracies of stage movement are virtually eliminated.

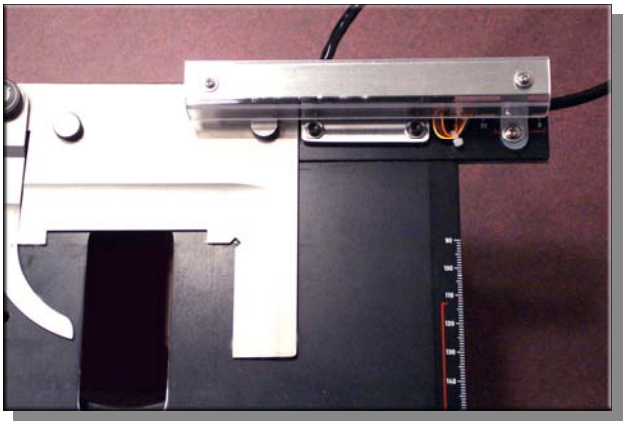
Microprocessor based: The MD3 features programmed functions for measurement and counting, including: distance, length, area measurement and counts of numbers of objects. Functions are controlled from a 24-key, front panel membrane keypad.

Serial Communications: Data are sent to the host computer via a standard RS232C serial connection at selectable baud rates from 1200 to 19200. Commands from the computer control baud rate, binary or ASCII data formats and single point or stream mode reports. The companion software, MDPlot (see overleaf), handles all serial communications functions with the MD3.

LCD display: X-Y coordinates, function measurements and status messages are displayed on a 4-line, back-lit liquid crystal display.

Origin Control: Coordinate origin can be set at an arbitrary stage position, or at an absolute origin using reference marks internal to the optical encoders.

Encoder mounting: Price of the MD3 includes custom mounting of the optical encoders to your microscope stage.



X-axis Microscale Optical Encoder attached to Zeiss stage.

System Specifications:

Resolution: 1.0 micron.
Total travel: X: 90 mm, Y: 70 mm
Display: Format: ±999.999. LCD display, six full decades, leading zero suppression and decimal point, reading directly in millimeters to 1.0 micron.
Output: RS232C serial output in ASCII format. Programmable baud rate, 7 data bits, 2 stop bits, even parity.
Controls: On/Off switch, membrane keypad and foot switch.
Power: 110, 115, 220, 240 VAC at 50-60 Hz.
Size (cm)/Weight: MD3: 26W x 21D x 11H / 2 kg. MD101: 12 x 2 x 2.5 (L x W x H).