

TRAKSCAN SYSTEM 3

Automatic Fission Track Imaging & Analysis System - Version 3

Training Module (NEW)

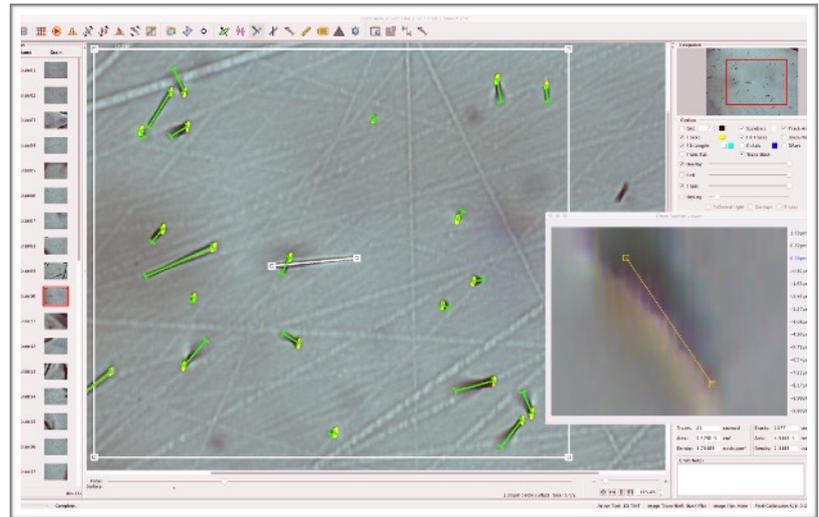
A major new feature is a training module that overlays results from a 'teacher' on those obtained by a novice at fission track analysis. Discrepancies are automatically highlighted for correction, comment or discussion. The system greatly facilitates training of new analysts.

Automated Length Measurements (NEW)

A major advance in Version 3 is the inclusion of new tools for the measurement of track lengths. For the first time, measurement of 3D semi-track lengths is now possible. An automated confined track measurement tool is also under development. These tools are aided by a new 3D cross-section Window that enables a vertical slice through the image stack to be examined.

Automated Scratch detection (NEW)

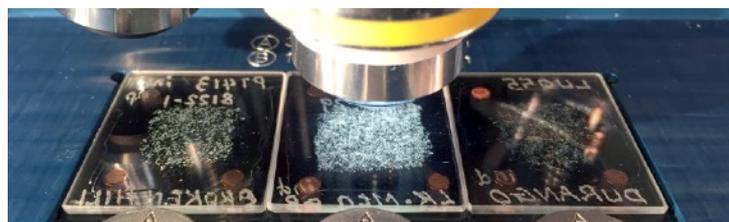
Etched polishing scratches remain problematic in some etched apatite grains, and can interfere with automatic counting. Now polishing scratch features can be detected automatically and deleted automatically, or manually, after inspection.

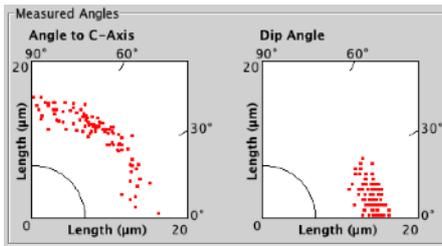


Track Studio Suite Version 3

The Melbourne Thermochronology Group, with Autoscan Systems Pty Ltd are pleased to announce a major upgrade to *Version 3* of their digital image-based **Fission Track Studio Suite**, comprising the microscope control and image acquisition system **TrackWorks 3**, and the automated and computer-assisted fission track analysis system **FastTracks 3**.

Version 3 is a major upgrade that includes many new improvements and additional features in the core software system, as well as several new advanced Extension Modules, in addition to those Extensions available with Version 2 of the Suite. Version 3 also takes advantage of new developments in hardware capabilities, in particular the integration of a new generation of very fast, high-resolution digital microscope cameras, and advanced stages that dramatically improve system performance.





Features from Vers 2

All features of the previous Version 2 of the Track Studio Suite for manual or automatic FT counting are included in the new Version 3. These include:

- An integrated microscope control and digital image capture system for use with current motorised microscopes
- Designed for both EDM and LA-ICP-MS methods
- A comprehensive suite of fission track analysis tools
- Automatic fission track counting with tools for manual correction of the results
- Manual track length measurement tools for confined-tracks
- Automatic determination of c-axis directions on apatite grains
- Automatic determination of Dpar and Dper parameters
- Automatic location and automatic centring of slide coordination markers
- Export of grain coordinates in a variety of different formats for other motorised stages
- Cross platform performance on Mac and PC systems
- Multiple slide handling of up to 3 slides in a single session

Using a modern motorised digital microscope this system provides the first fully operational and comprehensive system for computer-assisted, manual or automated fission track analysis in apatite, zircon and other minerals.

Core Features of Version 3

Version 3 includes many improvements to the user interface and performance that make the new system a pleasure to use.

Specific new features include:

- The main window can now be zoomed in for closer inspection and more accurate measurement of track features
- Fast camera integration with frame rates of 40 fps at full resolution greatly improves performance of microscope control and image capture
- Improved/faster autofocus, automatic slide coordination and automatic grain detection using TrackWorks
- Software control of additional microscope functions including two-part condenser systems and motorised filter wheels
- Capture of large-area mosaic images of a grain mount
- High dynamic range option for improved imaging in difficult grain illumination conditions
- Greatly improved multiple slide handling capabilities, for autonomous digital imaging of 3 to 8 slides at a time. The larger 8-slide format carrier is designed for a Zeiss piezo-motor stage.
- Option to save Grey Scale and LZW-compressed TIFF images to reduce file sizes and increase performance
- Background image subtraction for removal of persistent illumination problems at the microscope
- Rotatable Region of Interest on the mica images when using the External Detector Method
- The 'Count' and 'Length' modes of Version 2 are now integrated
- New grain and inclusion labelling feature

