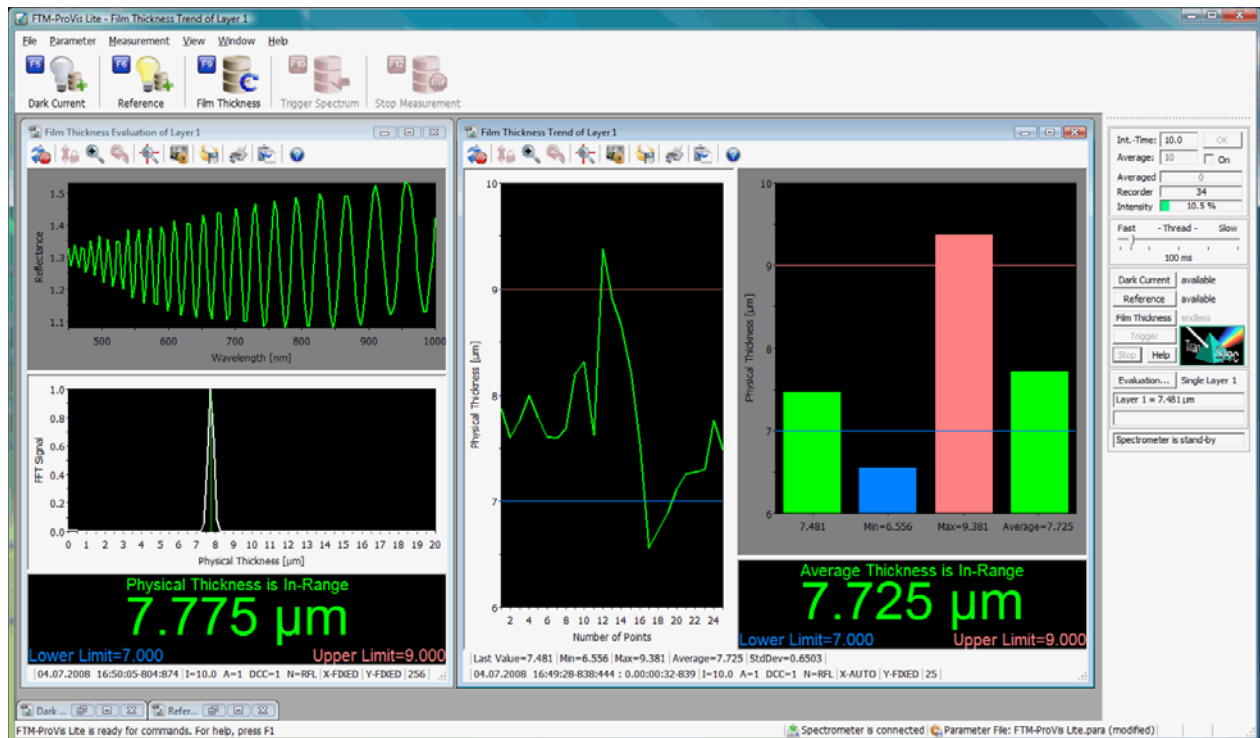




FTM-ProVis Lite

Software for Film Thickness Measurement

FTM-ProVis Lite is a convenient and very easy-to-use software package, which permits to quickly perform high precision film thickness measurements of thin transparent layers using our **FTM-Lite** film thickness gauges.



Exemplary screenshot of FTM-ProVis Lite

FTM-ProVis Lite uses an improved Fast-Fourier Transformation (FFT) algorithm to determine the film thickness from measured white-light interference spectra of thin transparent layers, which ensures high-precision results in the entire measurement range. The film thickness result is computed in real-time, can be displayed in various different on-line charts and logged to a text file during the measurement. FTM-ProVis Lite also permits the simultaneous measurement of double-layers. The example above shows the measured interference spectrum on top left (green curve), from which the FFT spectrum is computed and displayed below (white curve). In the FFT spectrum the position of the so-called FFT peak directly supplies the film thickness result (marked by the green vertical line), which then is displayed at the bottom or in a trend chart as shown right beside.

Technical specifications on next page ►



FTM-ProVis Lite Software • Technical Specifications

August 2008, related to version 3.0, without guarantee, subject to changes

Minimum Hardware and Software Requirements

- PC/Laptop with at least Pentium-4
- Windows XP or Windows Vista
- CD-ROM drive for installation
- Graphics adapter with at least 1024 x 768 pixel, 1280 x 1024 pixel is recommended
- FTM-Lite or TranSpec Film Thickness Gauge (USB 2.0 required)

General Description

- Multi-Threaded and Multiple Document Interface handling
- Shell registration for drag-and-drop of FTM-ProVis Lite document files
- Minimum requirement of resource and memory
- Programmed in Visual C++ by use of the Microsoft Foundation Classes (MFC)
- Consideration of the Microsoft Application Design Guide: menu toolbar, status bar, tool tips, HTML on-line help
- Fully supports Windows themes and multi-monitor use
- Software documentation as detailed, printed User's Manual and Quick Reference Guide with many examples

Film Thickness Measuring Range

The film thickness range generally measurable with our FTM-Lite gauges is approximately 1 to 150 microns (~ 0.04 to 6 mil) optical film thickness, but depends essentially on the spectral range and the spectral resolution of the spectrometer module assembled to FTM-Lite. Other factors which determine the measurable film thickness range are the refraction index and its dispersion, as well as the currently selected spectral evaluation range.

High-Precision and Fast Evaluation Method, also for Double-Layers

- Evaluation of interference spectra with the help of a special Fast-Fourier-Transformation (FFT)
- Run time-optimized algorithm, evaluation time is less than a millisecond
- Special algorithm for highly accurate sub-pixel determination of the FFT peak position (film thickness result)
- Selectable spectral evaluation range of the interference spectrum
- Consideration of refraction index and dispersion (Cauchy Dispersion Correction)
- Selectable film thickness evaluation range in the FFT spectrum for fully automatic measurement of double layers

Various Options for Measurement and Visualization

FTM-ProVis Lite provides various options to perform film thickness measurement tasks and graphical representation of the results. At the same time the software is very user friendly, so even less trained personnel can work with FTM-ProVis Lite.

- Manually or fully automatic timer triggered film thickness measurements
- Real-time representation of Interference and FFT spectrum during measurement
- Real-time representation of the film thickness results as trend and bar chart
- Logs up to 22,500 thickness results to read-shared text files, accessible by third-party software during measurement
- Logs up to 22,500 spectra as Spectra-Recorder, which permits a subsequent off-line film thickness re-evaluation
- Permits to open and re-evaluate Spectra-Recorder files of FTM-ProVis 2000 and FTM-ProVis 4.x/5.x/6.x
- Saves all your parameter settings into individual parameter files
- Password protection of parameter setups and special user access rights for each document individually
- Quick access to last used parameter and Spectra-Recorder files

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