Semiconsoft,Inc

Thin Film Measurement solution
Software, sensors, custom development and integration

TFCompanion Release: version 4.5

(MProbe software updates March. 2017)

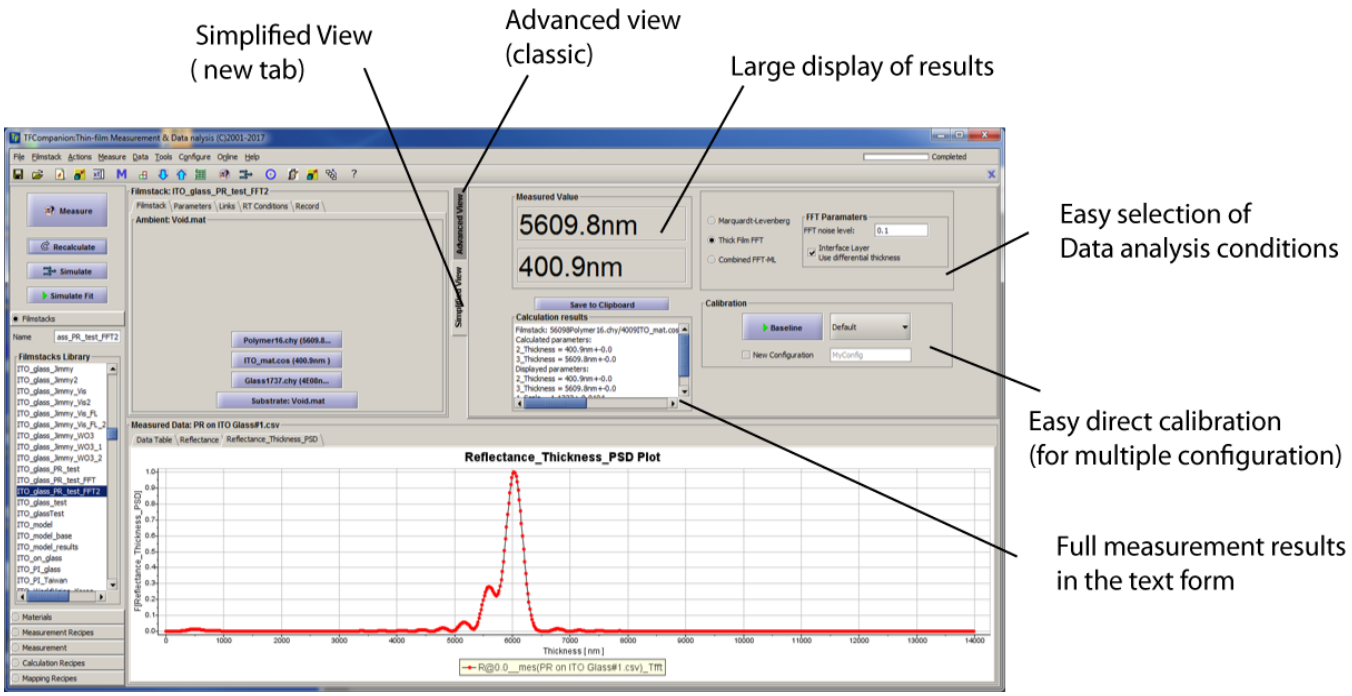


Fig. 1 New "***Simplified View***" tab gives easy access to measurement results and allows direct calibration (Baseline) for multiple configurations. The "classic" display (as in previous versions) is retained in the ***"Advanced View"*** tab

1. Light source properties are stored in the light controller flash memory and read during the first use. No need to copy light controller properties (PIC.proproperties) file manually. Driverless installation on Windows 7/10.
2. Fixed light controller firmware to work reliably on Windows 10.
3. Automated configuration of the MProbe system during the setup/first use. Relevant information is stored in spectrometer flash and system is automatically configured:
   a). Saturation offset of the spectrometer is set
   b). Standard measurement recipe is updated to match the spectrometer and automatically loaded
   c). System specific calibration sample is set in configuration

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4. Added calibration database to support of using multiple calibration depending on configuration. For example, MProbe 40 has several objective lenses – system can be calibrated for each lens separately. These calibrations can be selected when lenses are changed during measurement w/o need for re-calibration

5. FFT improvements
   a). more robust measurement of interlayer's thickness
   b). Limit thickness display range based on constraints

6. Changed GUI – added Simplified View tab:
   1. Button for direct Calibration/Baseline
   2. Large format display of 1 or 2 measured thickness values

Minor.

1. Export filmstack/Material. Add options to set the export location
2. Added a splash screen monitor to display progress of the spectrometer/light controller connection and system configuration during start-up. It can take ~ 5-10 sec. depending on the system.

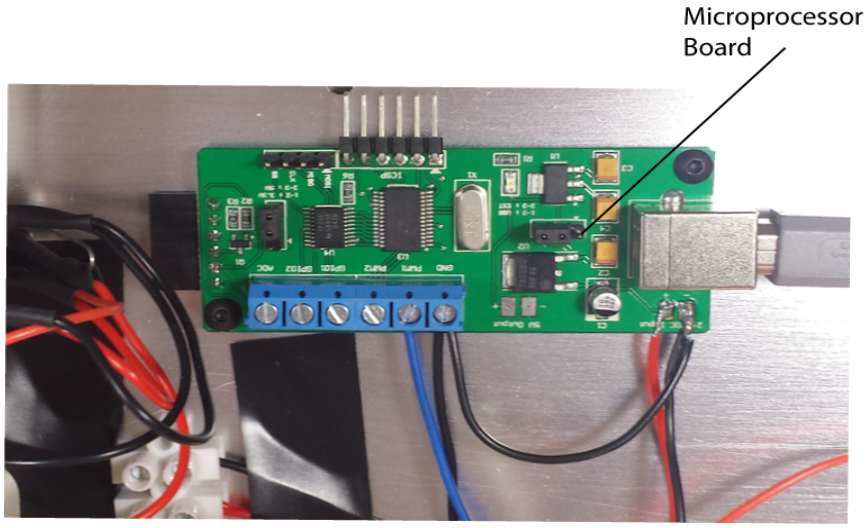
Modbus TCP Server update.
(Modbus server is integrated with the software and allows remote measurement/control of the system)

1. Added support for loading different calibration files
2. Added support for light intensity control
3. Added support for checking current light/signal level in the spectrometer without taking measurement

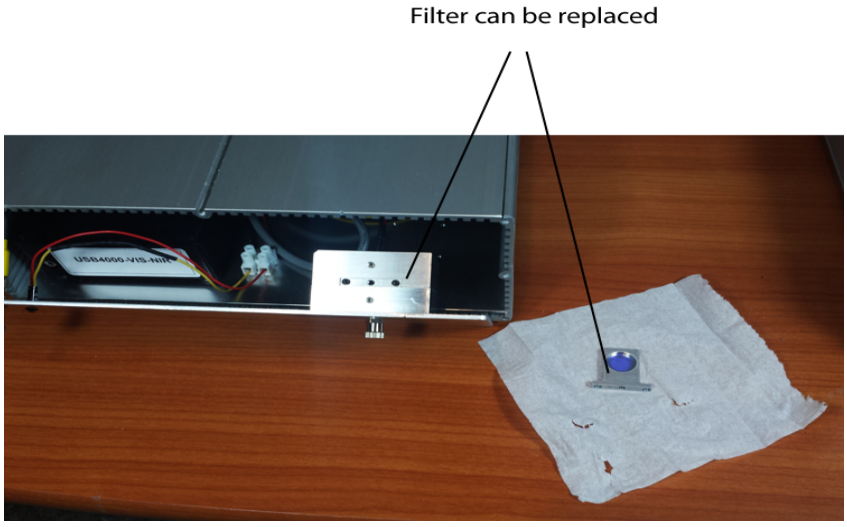
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Hardware improvements:

1. New microprocessor board to control light source. Allows driverless installation on Windows 7/10 systems. New firmware and large flash memory allows storing of properties information that is used by software to configure the system. Microprocessor firmware starts controlling light source immediately after power on. Light intensity is set and stabilized before connection to the PC. Microprocessor is powered from the 24VDC rail (same as light source)



2. MProbe Vis, VisHR and NIR has new light condenser with removable/ changeable filter. In previous versions, filter was hard fixed in the factory.



4. New spectrometer based on Hamamatsu S10420 detector is used in UVVis, UVVisF and UVVisNIR systems. It offers significant improvement in sensitivity in UV range and long term stability without disconnects.

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