

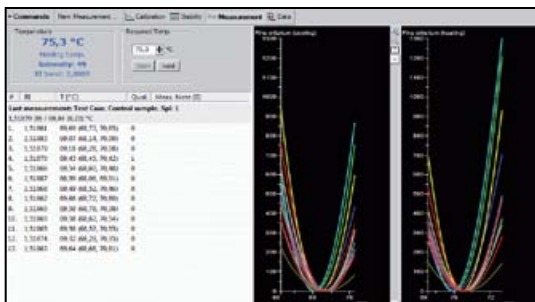


## Measuring the Refractive Index of Glass Samples



RIQ™ from CRAIC Technologies is a full featured measurement solution for the refractive index of microscopic samples of glass. RIQ™, which stands for Refractive Index Quantitation™, uses the thermo-optical methodology for the accurate and simultaneous determination of the refractive index of multiple microscope glass fragments. RIQ™ consists of a high resolution digital camera, thermal stage, and control electronics. At the heart of RIQ™ is a highly sophisticated software package for accurate and reliable refractive index measurements of multiple glass samples simultaneously.

As a combined hardware and software package, RIQ™ can be used as a standalone solution or can be added to a CRAIC Technologies microspectrophotometer. RIQ™ adds the determination of the refractive index of glass to its capability to measure for color, ultraviolet, or NIR spectra of microscopic fragments...all in a single instrument.

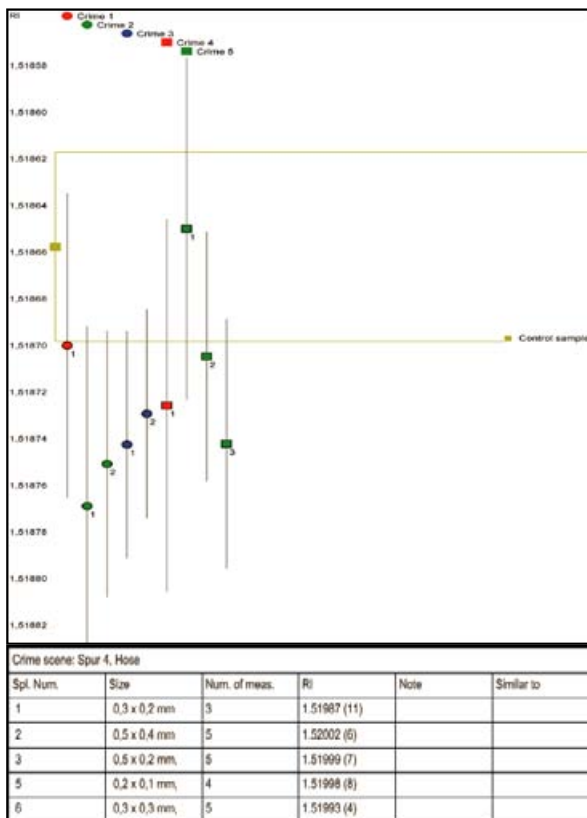


### Key Features:

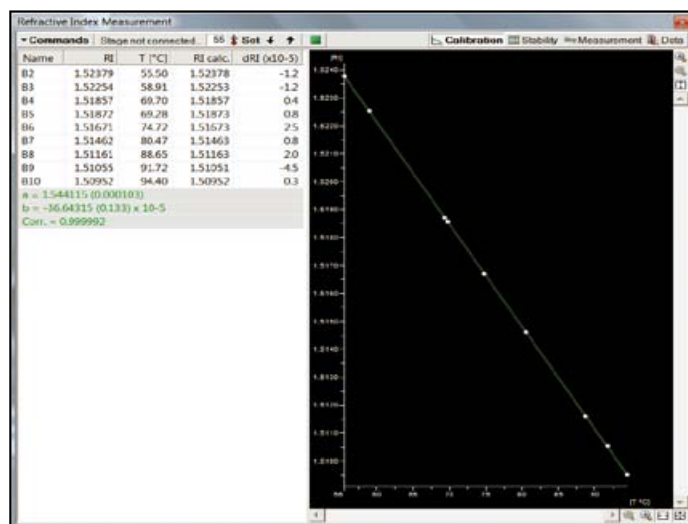
- Precise and easy refractive index measurements
- Uses industry standard thermo-optical methodologies
- Up to 20 points can be analyzed simultaneously
- Video record of entire measurement process
- Results stored in searchable database

## Measurement Evaluation

- Illustrative interactive graphs of heating and cooling phase for each probe with zoom capability enables fast visual evaluation results
- Automatically generates statistics of refractive index measurement
- Multiple glass fragments can be analyzed and graphed simultaneously
- Results can be saved into the database including information about the environmental conditions, case identification, evidence, fragment number, fragment size, color, date, operator's comments, etc.
- Report templates can be created, including PDF reports, or exported into Microsoft Excel



← Comparison of several measurements  
 ← Results table of a generated report  
 Calibration curve ↓



### Reproducibility and Reliability:

- Capability via glass standard reference materials
- System stability graph is generated using stability measurement of refractive index of glass standards on a daily basis to monitor long term stability
- Environmental conditions (air temperature and humidity) are measured and saved with every refractive index measurement to exclude challenges of environmental variations

### Complete Package Includes:

- Monochrome digital CCD camera with high resolution image
- Thermal stage with custom controller
- Environmental monitoring unit
- 64 bit performance workstation with Windows 7 Professional
- A set of silicon oils and calibration glass standards

### Optional Equipment:

- EPI illumination working in darkfield and brightfield
- Carousel holder of interference filters
- Two-monitor system, printer and other computer customization

### Other Features:

- Software includes sophisticated image processing and analysis tools
- This package can be used alone or with a CRAIC microspectrophotometers