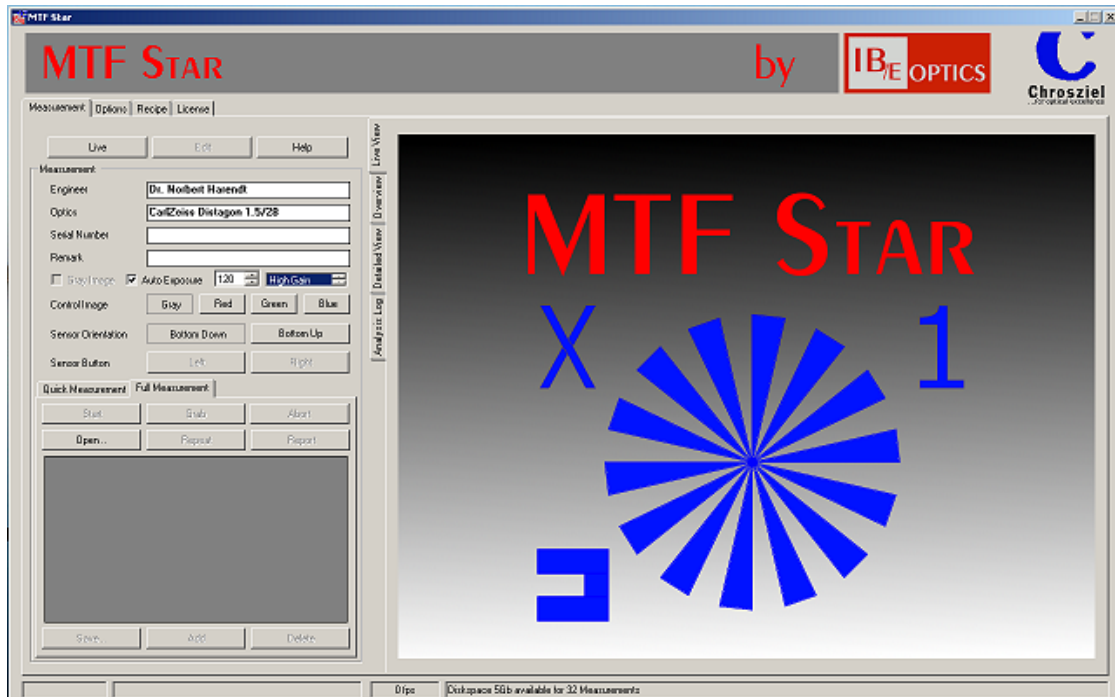


MTF Star The New Way to Analyze Lens Quality



The MTF Mouse and MTF Star software offer a new and unique way to analyze optical performance. Together they turn any Chrosziel projector into a powerful MTF and color aberration evaluation tool.

Developed through a partnership between IB/E and Chrosziel, the MTF Star allows you to perform visual projection tests and view the results electronically in the form of pictures, graphs and tables. The data can then be saved for future reference, shared remotely with colleagues as pdf files, printed and kept with the lens as protocol, or used for presentation and comparison.



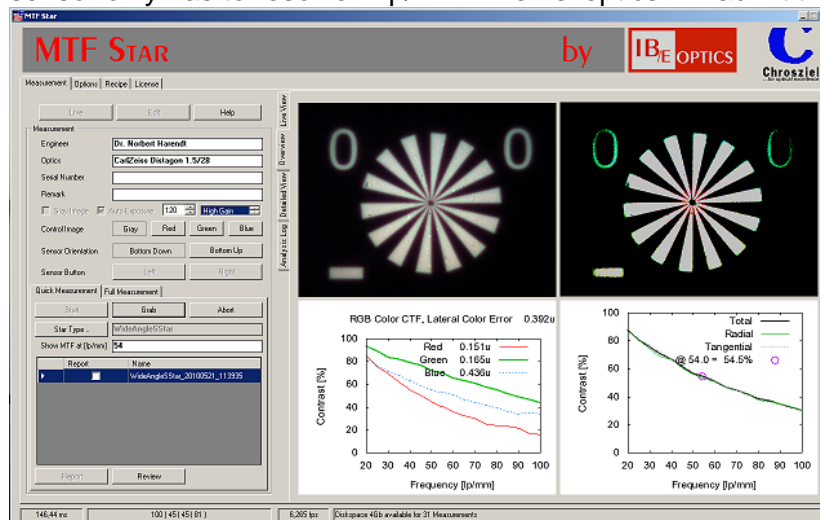
The system offers:

- visual evaluation
- objective measuring of MTF and lateral color aberration according to EBU Tech 3249
- reports of all results in the form of tables and graphs
- ability to save reports as a pdf file
- convenient workflow and evaluation of results at the work station
- easily shareable results and reports to keep with the lens as protocol

Patented measuring method (DE 102010014215.8, US 61/322,180)

Previous measuring procedures were based solely on visual inspection. A line structure on a test chart designed for the resolution of the intended format was projected and scanned by a sensor. The resulting MTF value was displayed as a percentage of the maximum resolution required by the format. The test chart had line structures for both SD and HDTV resolutions.

The MTF Star uses a totally different and unique method. A camera with a lens optimized for very close field is focused on a projected Siemens star, whose size may vary from approximately 20 to 40mm (maximum). The difference in star sizes – from the original test chart to the projected size – makes the task of sensing resolution very easy with the handheld MTF Mouse. To measure a resolution of 100 lp/mm, the sensor only has to resolve 1 lp/mm. Even skeptics will admit this is a doable task.



The computer displays the picture being measured, the MTF value of the position selected on the graph, and the reference resolution as a percentage (e.g. HD-resolution 54 lp/mm). Radial and tangential measuring results are displayed individually as well.

When using visual inspection, any color aberrations could only be evaluated through comparison with other lenses. Determination of which lens was better had to be guessed at without measured values. The MTF Star detects the lateral color aberration and displays the three RGB curves with numerical values as well as total displacement.

Automated reporting of series measurement

When a lens is checked horizontally and diagonally at various positions, the program guides the user through the procedure. The report shows a table and graph of all measurement results; however, each value can also be displayed individually. Several measurement procedures come preset within the MTF Star: the EBU standard, "CROSS ONLY", "DIAGONAL ONLY", AND "CROSS DIAGONAL". More procedures can be defined by the user. For example, a QUICKCHECK could be established for the routine measurement of only 4 critical positions.

More functions:

- change formats and resolutions accordingly
- adjustable reference resolution
- view a full-color picture and individual R, G, B separations
- camera live view displayed before screen grab
- select between quick, single use and series measurement
- overlay resolution marks on the digitized picture for visual inspection
- one click on each picture or graph for full screen display
- one click to start analysis
- automatic storage of results and display of hard disk free space
- reports available in pdf format

First demonstrations coming soon, first deliveries planned by September 2010. Approx. price 13,000.- EUR. Please register on <http://www.chrosziel.com/mtf.asp?wdid=75&sid=0> for updates or email [Sebastian Merkel](mailto:Sebastian.Merkel@chrosziel.com)