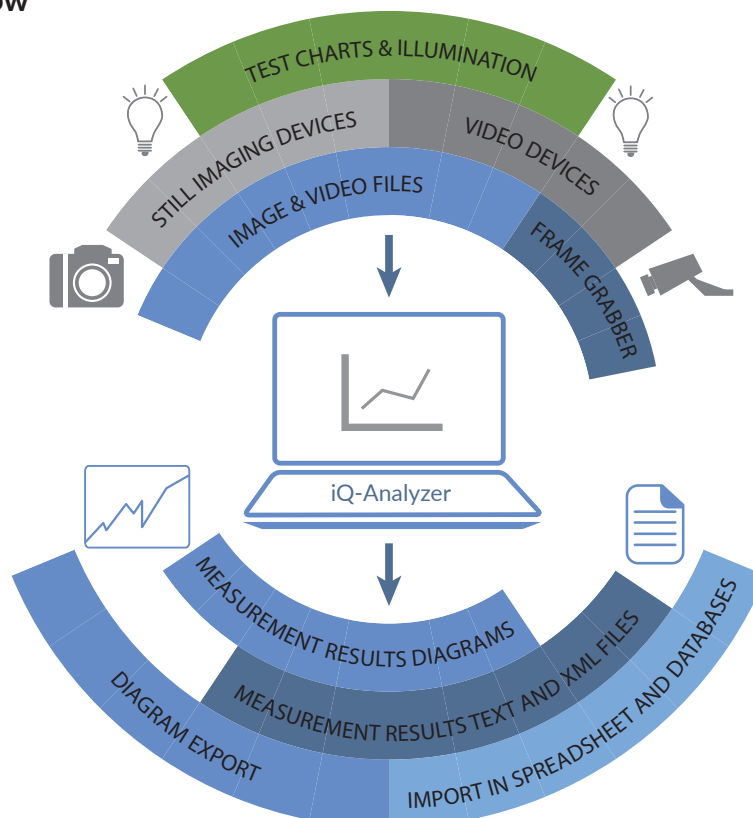# iQ-Analyzer

A professional image quality analysis

The iQ-Analyzer is an image quality analysis software that evaluates images and video frames of specific test charts. It is best utilized in combination with our test charts and illumination devices.
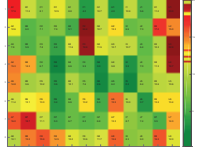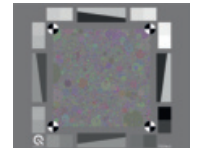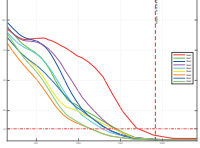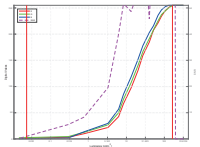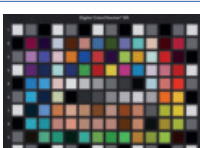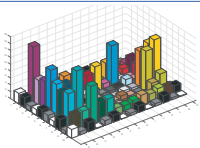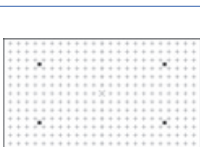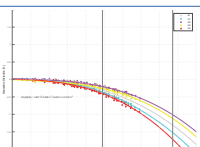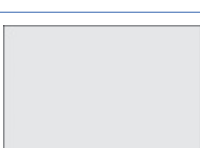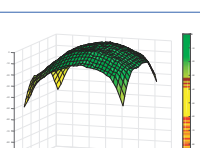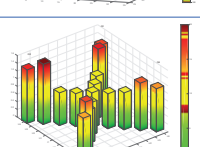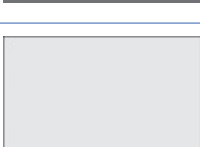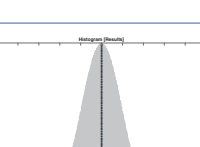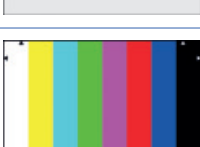
Main Features

✳ Eleven separate analysis modules

✳ Over 40 compatible test charts

✳ Versatile user interface

✳ Quick results assessment

✳ More flexibility via command line interface

✳ Flexible output format

✳ Multiple licensing options

iQ-Analyzer workflow

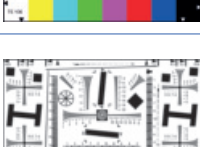| Modules	Example Charts	Main Features	Results
42 multipurpose		• Analysis of the TE42 multipurpose test chart • A quick overview of the camera systems image quality • Most important image quality factors with one image • Low-light performance (ISO 19093)	
Resolution		• SFR on slanted edges • MTF on sinusoidal or bitonal Siemens stars (ISO 12233) • Texture loss on low contrast Siemens stars (ISO 19567-1) • Texture loss on dead leaves (ISO 19567-2)	
OECF		• Camera OECF (ISO 14524) • ISO speed (ISO 12232) • Noise and dynamic range (ISO 15739) • White balance	
Color		• Color reproduction – Delta E* • Difference luminance, chroma and hue – Delta (L*, C*, H*) • Visual noise • Selectable chromatic adaptation and color difference formulas	
Distortion		• Lens geometric distortion (ISO 17850 & IEEE P1858 CPIQ) • TV-distortion • Lateral chromatic aberration • Longitudinal chromatic aberration	
Shading		• Lens vignetting • Luminance shading in f-stops or as a percentage • Color shading • Noise (depending on image field)	
Flare		• Flare measurement over the image field (ISO 18844) • Dark frame subtraction (optional)	
Histogram		• Intensity histogram • Defective pixels outside tonal range – dead, hot, single, cluster	
Video		• Live video and video file acquisition • Waveform monitor, vectorscope, histogram display • Color difference analysis • Live color comparison (when one camera is a reference)	
Measurement		• On-the-fly analysis (2D-FTT, visual noise, SFR) • Selections of differently shaped regions of interest • Contour plot • Histogram display	
UTT		• Scanners and archiving (ISO 19264) • Pass/Fail assessment • Size A4 – A0 and "mini" test target • Metamorfoze compliant	