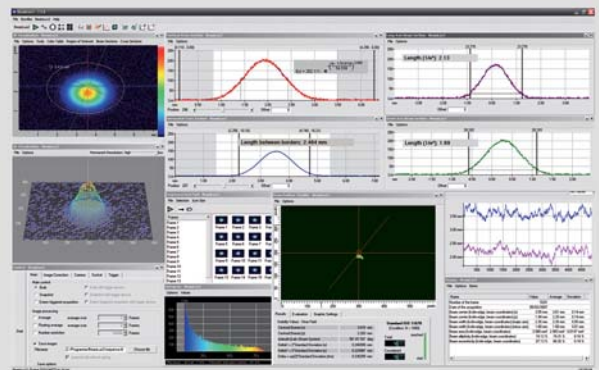


- Evaluations in compliance to ISO for gaussian beams and homogenized beams
- ISO 11146
- ISO 11145
- ISO 11670
- ISO 13694
- Online monitoring and evaluation of laser beams
- Automatic beam tracking and exposure time
- TCP/IP remote control
- Optimized for production and quality control
- Customized modifications
- Multi camera support
- Script language



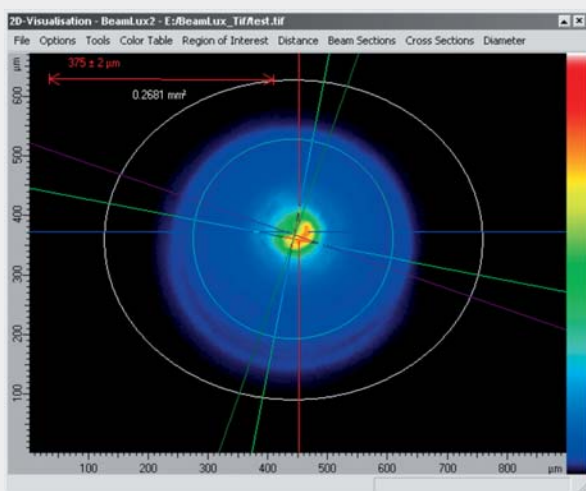
Everything can be improved • We give you a tool to be faster

Bundles

- beamlux II
- beamlux II advanced
- CW scan
- M^2
- beam scan
- raylux

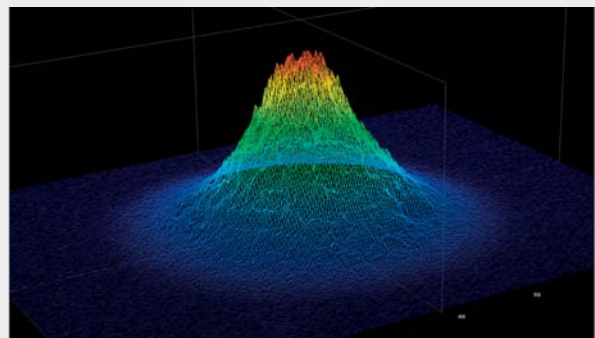
2D view

- Region of interest with automatic beam tracking
- Ruler for precise distance measurement
- Cross sections / beam sections with automatic beam tracking
- Diameter
- Threshold
- Color table, choose from 18 different colour profiles for best view with laser safety glasses or homogeneity control
- Physical units, display physical units or pixel
- Save beam profile in different formats (TIF, BMP, PNG, JPG, CSV, clipboard)
- Load beam profiles from TIF format



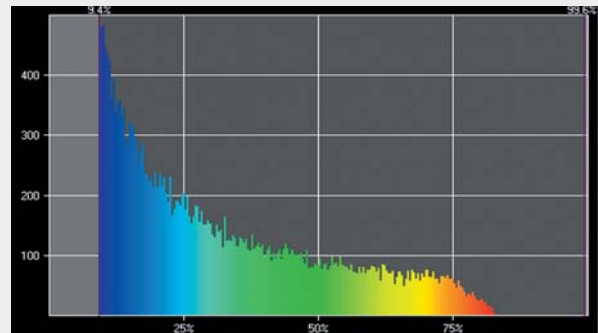
3D profile

- Perspective on/off
- Wire frame display option
- View from any angle and direction
- Zoom
- Choose reduced resolution for high frame rate
- Save 3D beam profile in BMP format



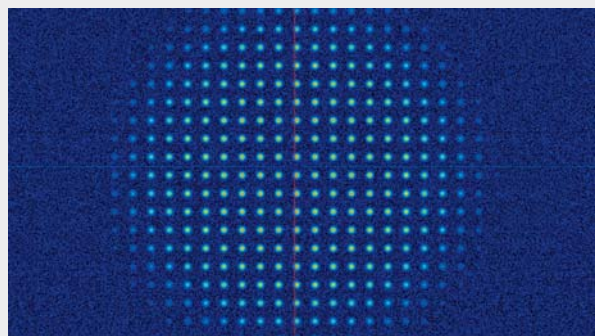
Histogram

- Percentage or count values
- Save histogram in BMP format



Arithmetic

- Add / multiply / subtract / divide a profile or a number from a reference frame for further evaluation



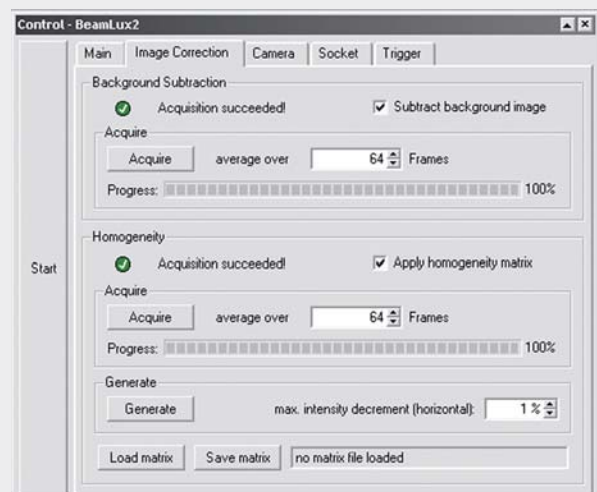
Evaluation results

- Displays actual value, minimum, maximum, average value, deviation and number for averaging
- Display date, time
- Statistics
 - Area
 - Sum
 - Mean
 - Deviation
 - Edge steepness
 - Homogeneity
- Evaluations in lab coordinates
- Evaluations in beam coordinates (long / short) axis
- Evaluation modes: Second moment, Knife edge, moving slit
- Evaluation results:
 - Cog (x,y)
 - Beam diameter long/short axis
 - Beam area
 - Ellipticity
 - Eccentricity
- Evaluation of homogenized beams:
 - Plateau intensity
 - Uniformity
 - Relative uniformity
 - Edge steepness
 - Relative threshold
 - Evenness factor
 - Multimodal mode
- Save as .TXT file
- Configure font size and colour for clear display
- Configure display format (scientific, fixed, automatic)
- Configure unit
- PASS/FAIL indication

Name	Value	Minimum	Maximum	Average	Deviation	N
Number of the frame	506					
Azimuth angle	0.34 °	-1.50 °	0.68 °	-0.21 °	0.41 °	506
Beam center (second moment) [x]	3.55 mm	3.35 mm	3.88 mm	3.63 mm	0.13 mm	506
Beam center (second moment) [y]	2.955 mm	1.962 mm	2.359 mm	2.119 mm	130 µm	506
Beam width (second moment) [major axis]	4.169 mm	4.154 mm	4.212 mm	4.177 mm	10 µm	506
Beam width (second moment) [minor axis]	2.636 mm	2.674 mm	2.789 mm	2.636 mm	19 µm	506
Beam area (second moment)	8.827 mm ²	8.739 mm ²	9.110 mm ²	8.843 mm ²	0.06493 mm ²	506
Beam ellipticity (second moment)	64.69 %	63.73 %	66.11 %	64.53 %	0.47 %	506
Beam eccentricity (second moment)	76.26 %	75.03 %	77.06 %	76.39 %	0.40 %	506

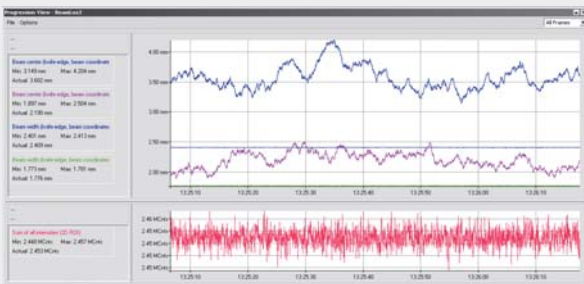
Hardware control

- Camera mode (snap shot, grab, extern triggered, triggered with LSD)
- Image processing
 - Average
 - Floating average
 - Number restriction
- Save frames
 - Interval in frames or time
- Image correction
 - Background correction (incl. positive and negative noise)
 - Homogeneity matrix
- Camera control
 - Gain, offset, exposure time
 - Automatic exposure time
 - Camera RegionOfInterest
 - Magnification
 - Binning
 - Horizontal / Vertical flip
- Socket control
 - Remote control via TCP/IP
 - Choose beamlux II as server or client
 - Settings
- Motor control
 - Control of stepper motor controller
- Trigger
 - Control of laser synchronization device
 - Frequency, delay, pulse width



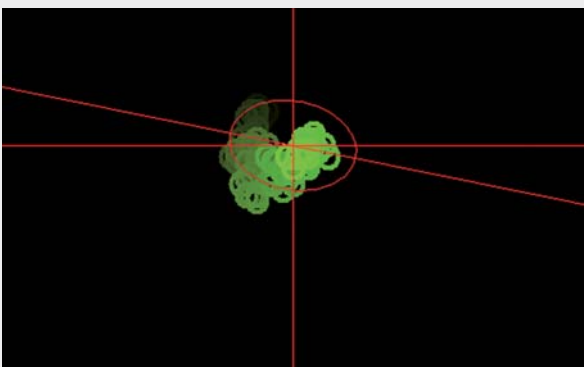
Progression view

- Time dependent view of all important laser beam parameters (see evaluation results)
- Select frames or time line
- Choose frame or time interval for display
- Save progression view display as .BMP
- Save data as CSV
- Zoom



Pointing stability

- Save display as .BMP
- Save values and results as CSV
- Copy to clipboard
- Comprehensive results
COG, Azimuth, deviations
- Comprehensive evaluation results
Short term, mid term,
long term evaluation, far field
- Zoom



Beam sections / cross sections

- Save display as .BMP
- Save analysisdata as .TXT or CSV
- Save section as BMP or CSV
- Copy CSV to clipboard
- Configure (display)
- Results
 - Total energy
 - Maximum / minimum / mean
 - Set borders for evaluation
 - Position maximum
 - Histopeak
 - Plateau uniformity
 - Edge steepness
 - Multimodal plateau
- Quality control
 - Homogeneity
 - Contrast
 - Level of horizontal
- Noise reduction (cross sections only)
 - Mean (Rectangular, Binomial, Savitzky-Golay, Triangle)
 - Convolution (Rectangular, Binomial, Savitzky-Golay, Triangle)
- Marker
 - 1/e², FWHM, fixed, 90/10, COG, Maximum
- Fit
 - Gaussian, Super Gaussian, Line
 - Display of the mathematical function
- Evaluation settings
- Border settings
- Results can be displayed on any position on the cross section screen
- Zoom