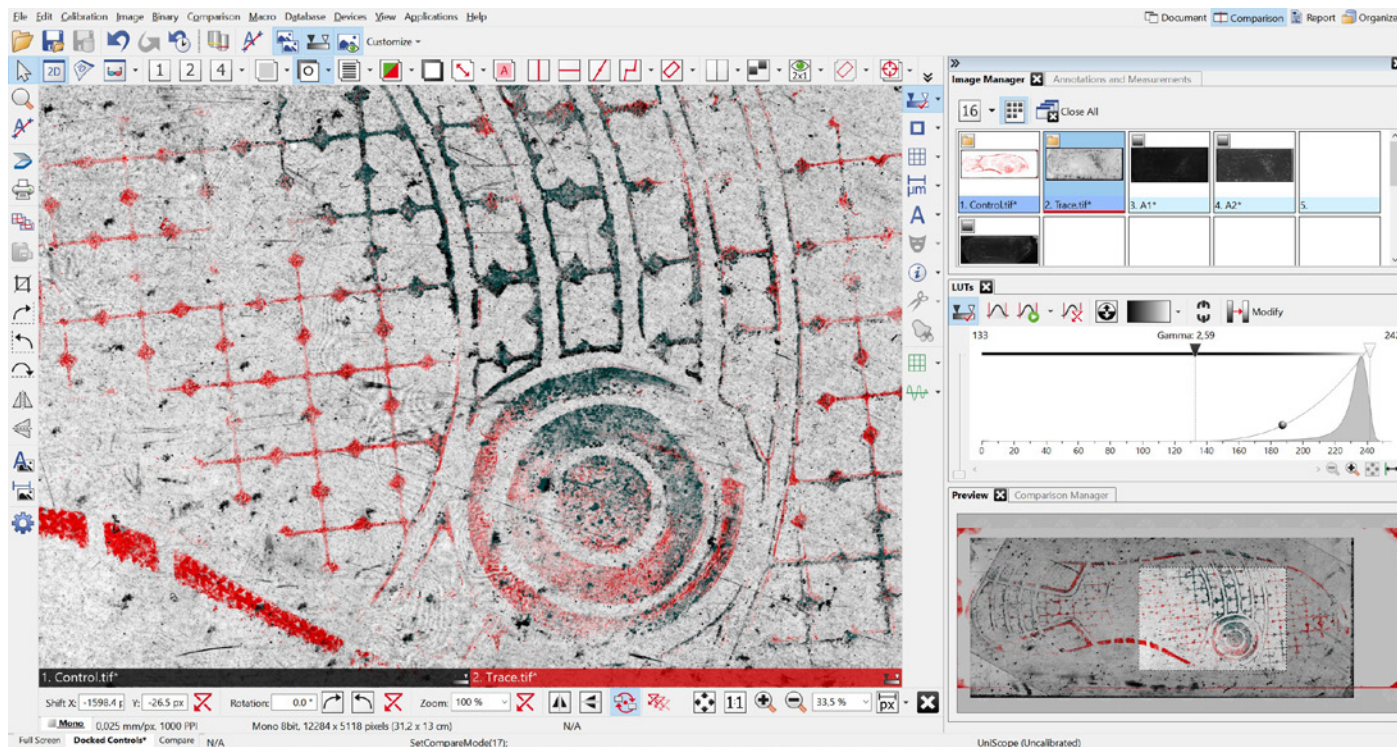


## IMAGE COMPARISON FOR FORENSIC APPLICATIONS



LUCIA Forensic is state of the art image processing and comparison software for forensic experts. The software comprises tools which cover all steps of trace enhancement, documentation of traces, multiple image comparison, and final report preparation. All functions are optimized according to needs of specific disciplines including fingerprint, shoeprint, tool marks, signature, or handwriting examination.

### IMAGE PROCESSING TOOLS

- Image calibration, digital scale insertion
- Rotation, flips, resizing
- Curves, contrast and gamma adjustment, lighting
- Shading correction, perspective transformation, distortion correction, smoothing, sharpening
- Measurement of distance, angle, thresholding
- Fully adjustable annotations – various tools with adjustable size, opacity, color
- Annotation presets for most used tools

### IMAGE FORMAT SUPPORT

LUCIA Forensic supports all typical image formats (JPG, PNG, TIFF). It can also import RAW images, NIST fingerprint files, WSQ files, X3P 3D images, or extract images from a PDF document or an archive (ZIP) or document (XLSX, DOCX, ODT, ODS).

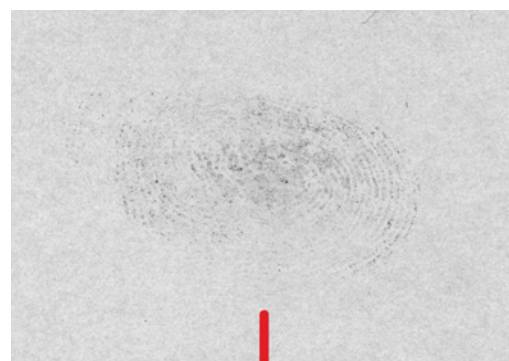
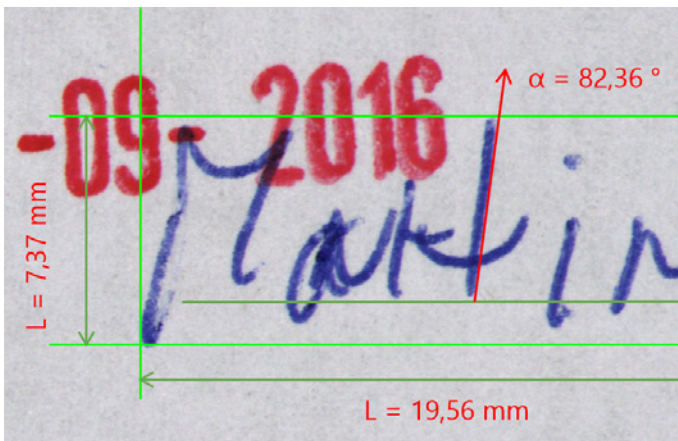
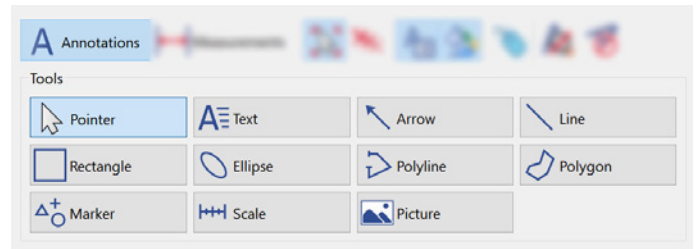
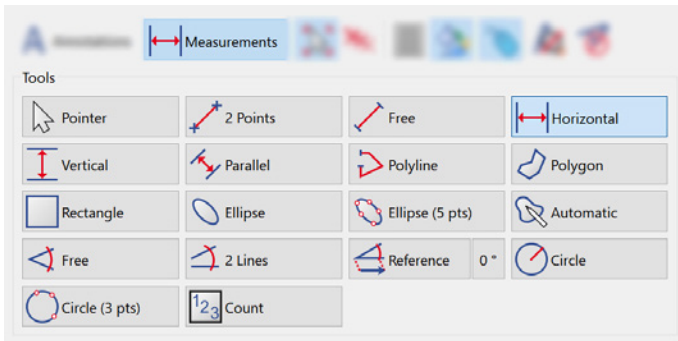
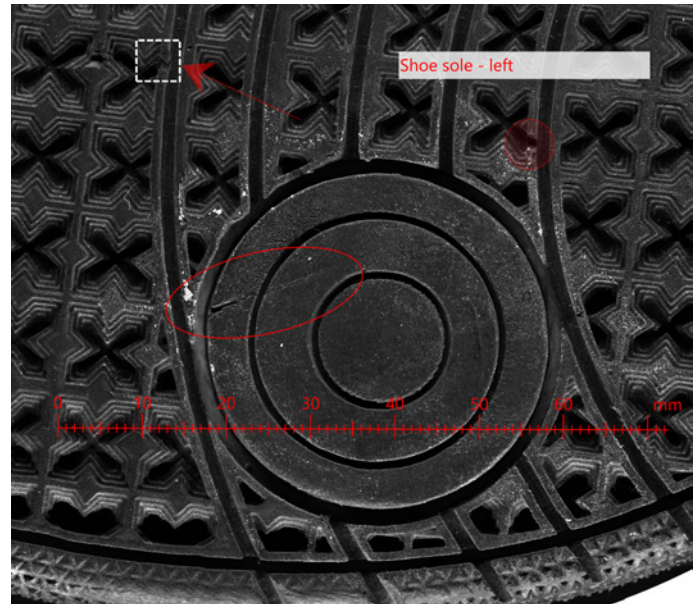


Photo of treated fingerprint enhanced with rotation, curves, local contrast, lighting with added digital scale.

# ANNOTATIONS AND MEASUREMENTS



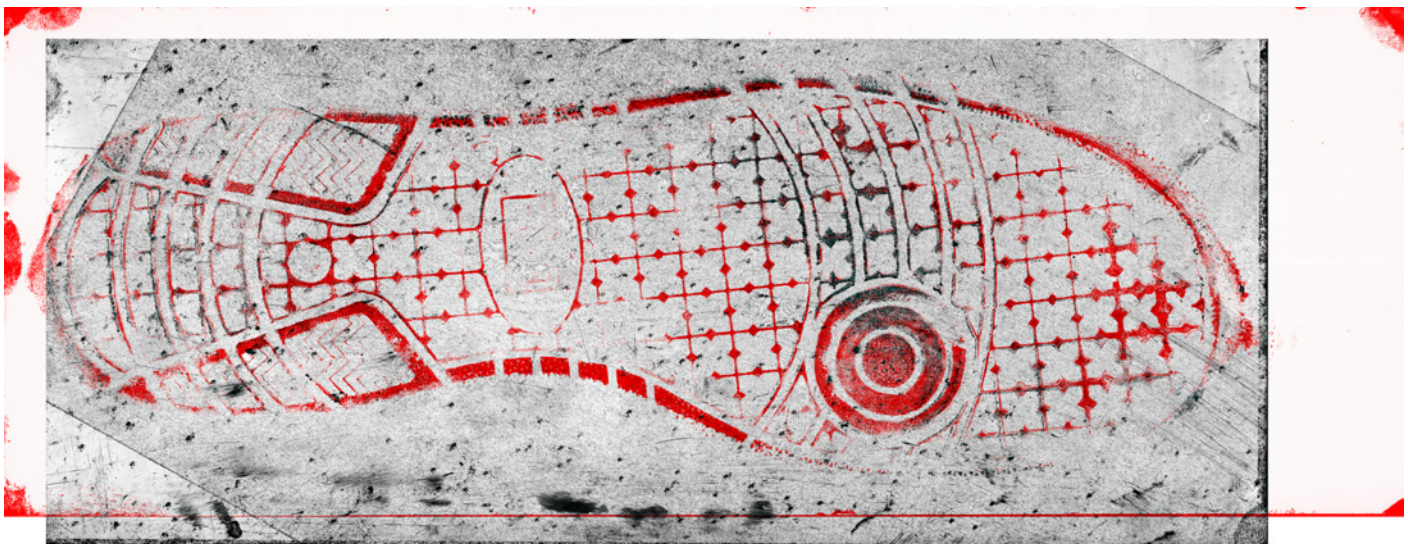
Signature with measured size and angle.



Shoe sole with various annotations. Annotations are saved in a separate layer and can be turned on/off.

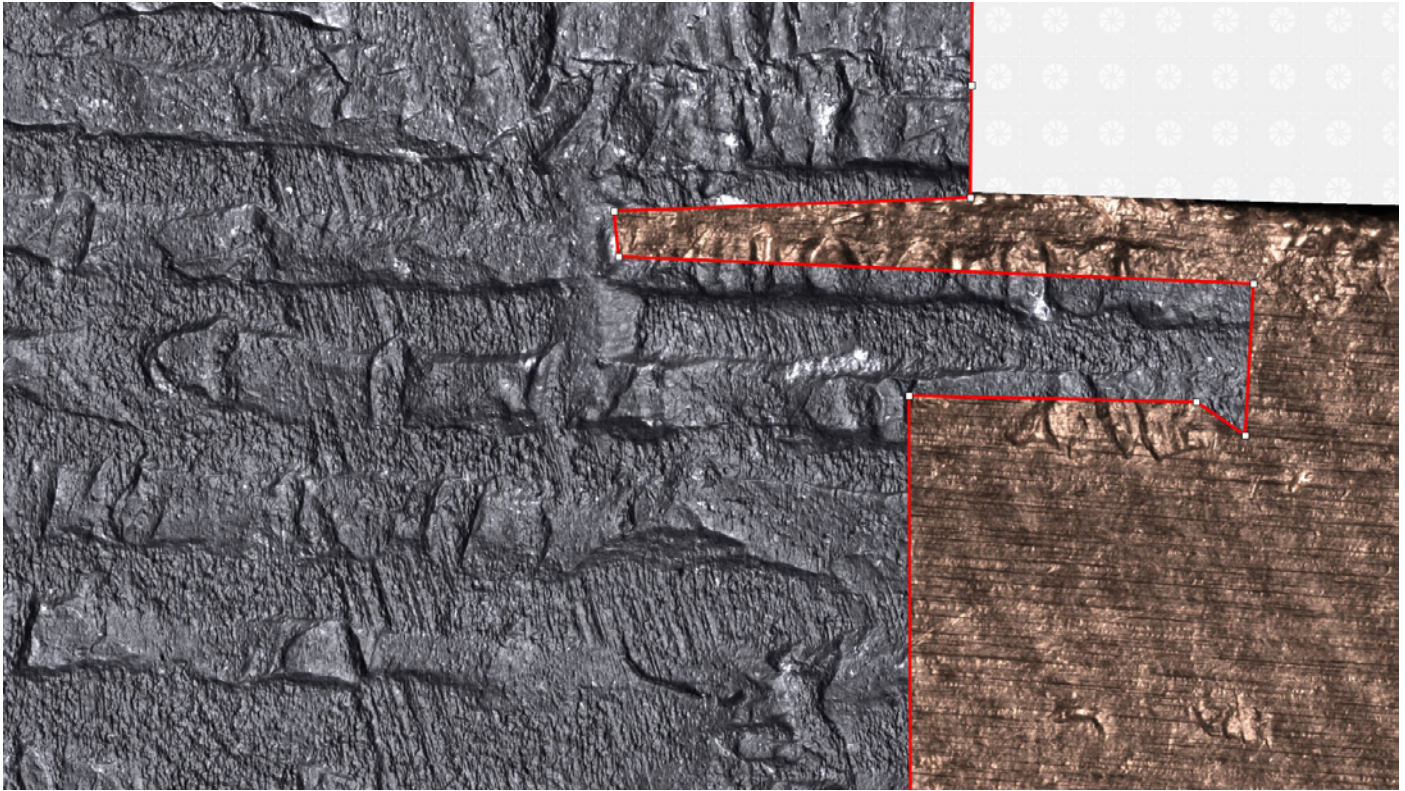
# COMPARISON TOOLS

- Transparency mode, transparency mode optimized for gelatin foils
- Side by side split screen mode for 2 images with horizontal, vertical, freely rotatable or polygonal split line
- Side by side tiled mode for up to 16 images
- Direct subtraction or combination of 2 images for background removal
- Full resolution screenshot for reporting



Recolored test shoeprint in special transparency mode for gelatin foils.

\* Images captured by LUCIA TrasoScan - dedicated system for shoeprint scanning and comparison.

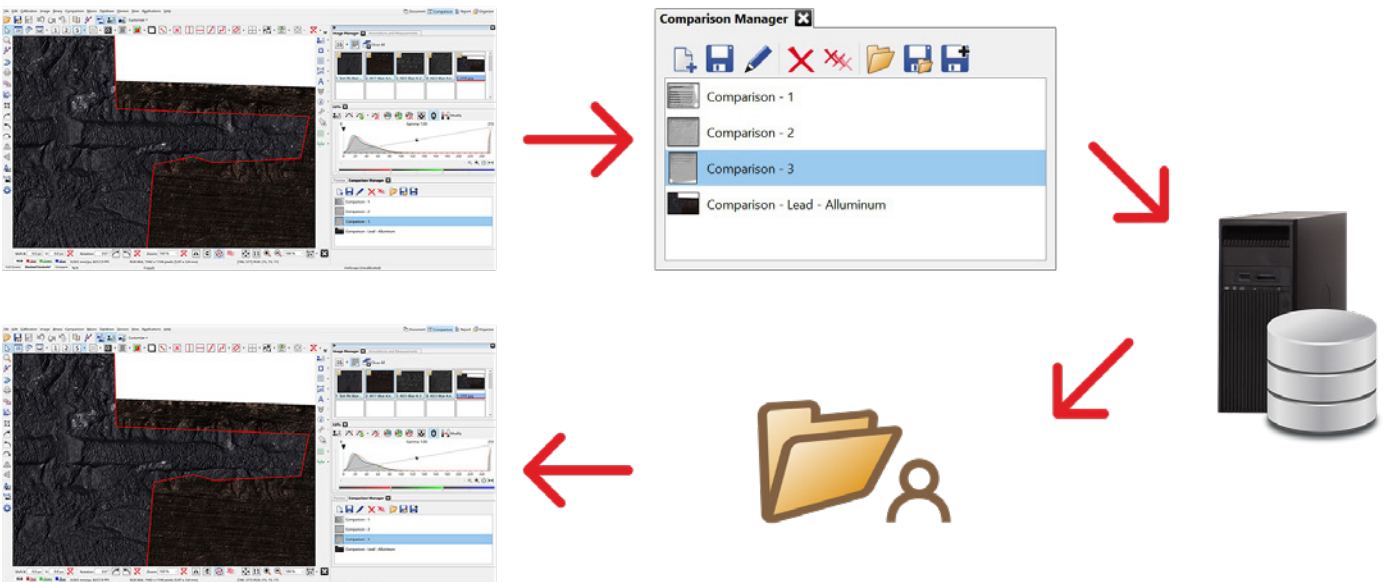


Toolmarks compared in side by side comparison with polygonal split line.

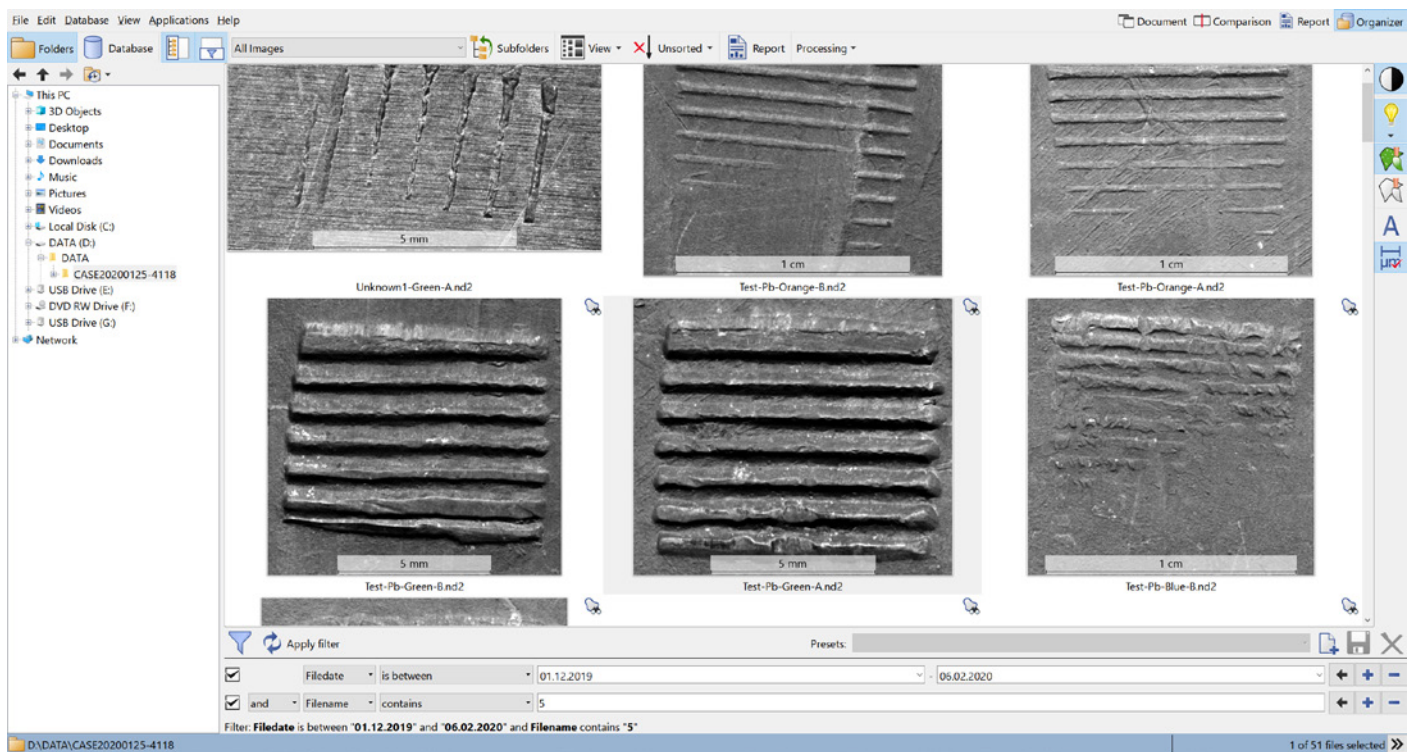
**\* Images captured by LUCIA ToolScan R360 - dedicated system for tool marks scanning and comparison.**

## TEAMWORK AND TRACEABILITY

- History of image processing stored within the image file
- Whole comparison “as is” can be exported for four eye verification or future case revisiting
- Integrated image browser for locally stored images or network images with large previews and comprehensive filtering
- Access to SQL databases, firebird based image database



All opened images and comparisons with all mutual positions, orientations and comparison modes are exported into a file – other user can see immediately everything for verification.



Organizer – integrated advanced image browser with large high-resolution previews and filtering.

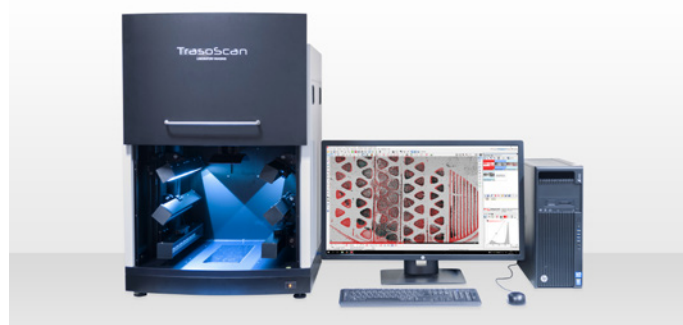
## IMAGE ACQUISITION AND DEVICE INTEGRATION

PC scanner can be used to scan images directly into LUCIA Forensic. LUCIA Forensic supports wide range of CCD/CMOS USB3 cameras which can be mounted on a microscope or stereomicroscope.

LUCIA Forensic software is also fully integrated with all LUCIA dedicated systems like ToolScan R360 and TrasoScan.



ToolScan R360 is a complete solution for forensic examination of tool marks. It is designed to scan 3D images of tool marks in various materials in high resolution.



TrasoScan is a versatile system for examination of shoeprints, shoe soles, fingerprints, documents and other flat surfaces. Objects up to 410 x 219 mm are scanned in 1000 PPI resolution.

## SYSTEM REQUIREMENTS

The software runs on Windows 10 64b operating system. Full HD and higher monitor resolutions are recommended, 4k is fully supported. Touch screen gestures and alternative control with tablet are supported. GPU can be utilized for performance improvement.