

ALPHA DIC 2024

The year 2024 brought a new version of the Alpha DIC software. We are X-Sighted to present this news



KEY ENHANCEMENTS:

The company update policy keeps the X-Sight Alpha DIC software stable and relevant. Updates include selected features requested by customers, as well as various tweaks and improvements.

Improved GUI functionalities

The frequency functionality for the point probe

The focus tool integrated into the camera panel

The 3D offline method creation allows the processing of stereo image data

FLC/FLD, Vibrography and the perspective removal mode for out-of-plane compensation



IMPROVED GUI

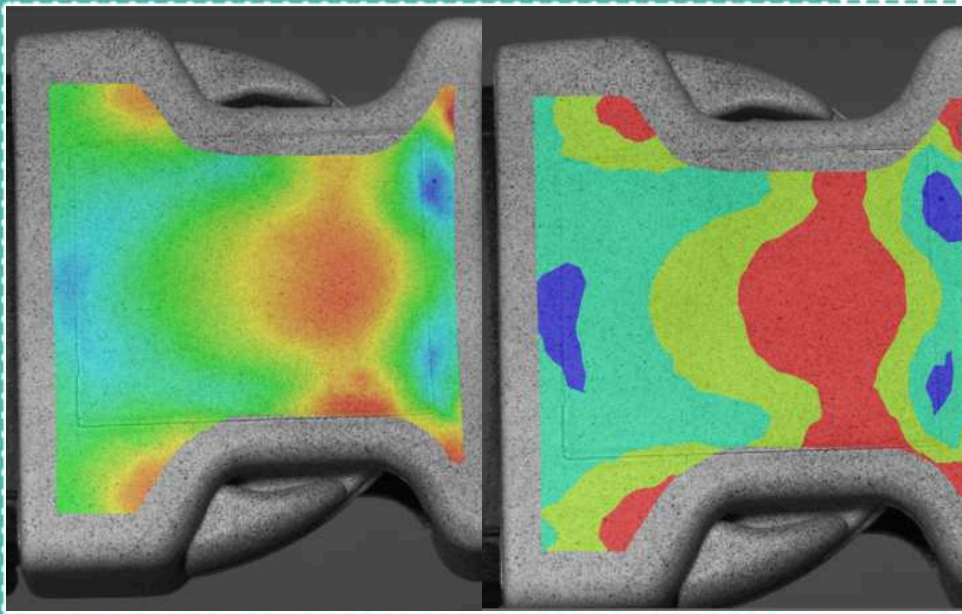
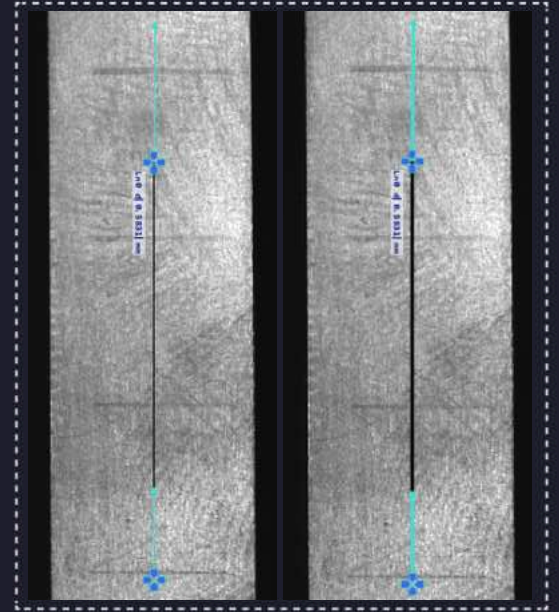
Customizable Direction Vectors Visualization

- Enhanced Printability: Adjust the thickness of lines and vectors for clear, readable printed visuals.
- Optimized for High-Resolution Displays: Improve ergonomics on 4K and 8K screens with customizable vector thickness.

Ideal for Presentations and Reports

- Professional Quality: Enhance the clarity of data in presentations and reports.
- Versatile Reporting: Improve readability and overall quality of technical reports and summaries.

Upgrade now to elevate your presentations and reports!



Enhanced color maps

- **Customizable Color Scales:** Switch between Linear and Discrete (arbitrary steps) color scales.
- **Enhanced Visibility and Printability:** Limited number of steps improve clarity and readability.

Modular Software Design

X-Sight ALPHA DIC is structured with modularity, allowing users to purchase licenses only for the necessary functions according to their specific needs. This flexible design ensures you can tailor the software to your workflow, using only the required modules in the appropriate modes.

New Feature: Result Reader

The X-Sight 2024 introduces the result reader, enabling you to intuitively evaluate your measurements without the need for complicated exporting. You can use it for Young's modulus evaluation in videoextensometry, filter your data, and compose your evaluation structure.

TOOLS:



INTERFACES:

LVD, DI, ITT

CORE:

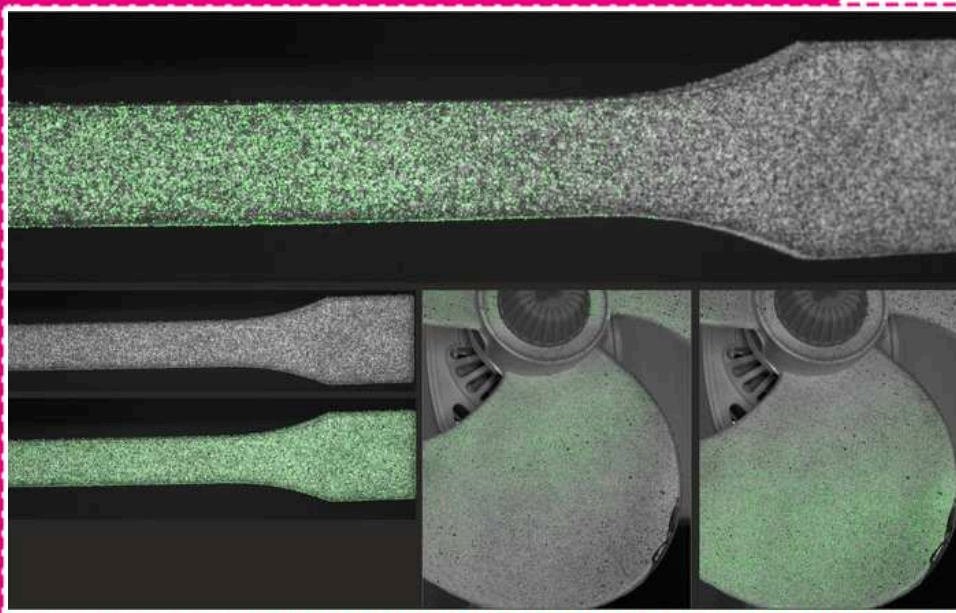
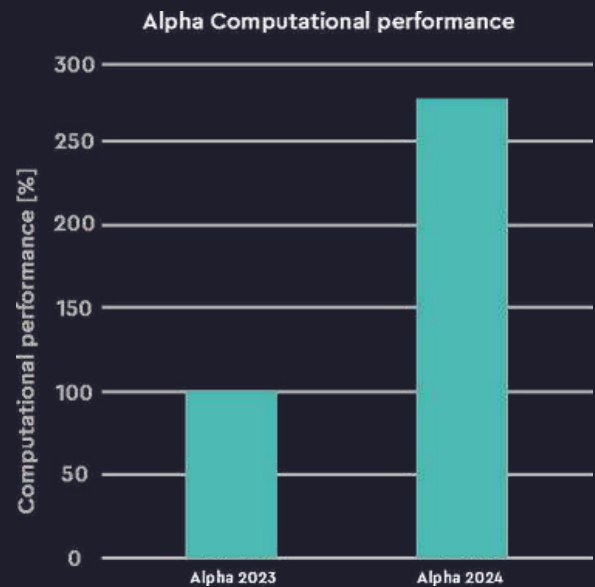
3D, 3DL

APPLICATIONS:

Post-Process
FLC/FLD
Result Reader
Bridge tool

PERFORMANCE

The X-Sight ALPHA DIC 2024 boasts improved computation performance, allowing for rapid calculation of strain fields with a large number of points. This optimization ensures faster processing times and greater efficiency in your analyses. Real-time computation is now smoother and more reliable, significantly reducing the likelihood of freezing or slowdowns. This new version is three times more powerful, enhancing your overall productivity and user experience.



Enhanced Camera Operation Tools:

The Focus Tool has been added to the Camera Panel, making it easier to achieve precise focus. Additionally, the Brightness Indicator button in Real-Time methods provides immediate feedback, allowing for more comfortable and efficient camera adjustments.

These enhancements ensure a smoother camera operation experience, where light conditions can be optimized and the interface is more user-friendly.

ERGONOMY:

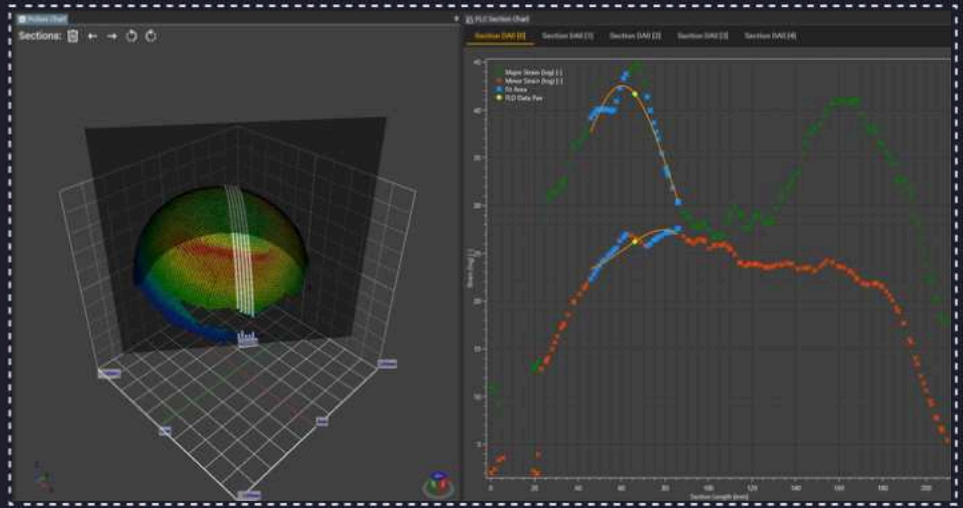
Small improvements enhance user daily experiences.

- ▶ The copy to clipboard button and CTRL+C command to 2D canvas is added to GUI
- ▶ Users can now select multiple probes and move them in a 2D canvas.
- ▶ A default line multiplier button is added to the camera canvas panel
- ▶ The video Export function is added to the Post-Process
- ▶ Customizable vector multiplier value is added
- ▶ Added focal length and working distance to calibration overview

ENHANCEMENTS

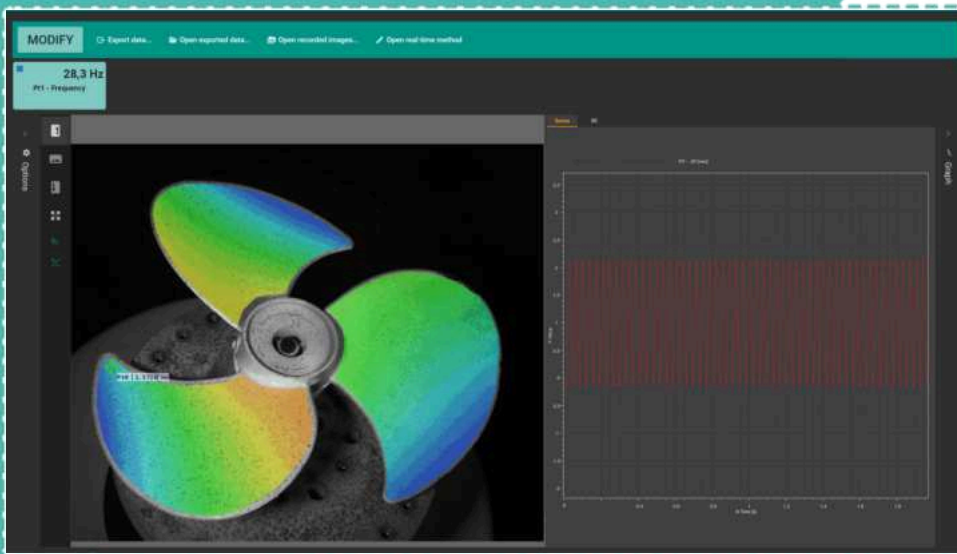
Advanced Feature: FLC/FLD Implementation

The latest implementation of FLC/FLD (Forming Limit Curve/Diagram) measurement and evaluation allows for a comfortable processing of data and the construction of forming limit diagrams. This feature is based on the latest engineering standards, ensuring accurate and reliable results.



With these enhancements, you can efficiently analyze and visualize forming limits, improving your evaluation process and decision-making.

VIBROGRAPHY TOOLS



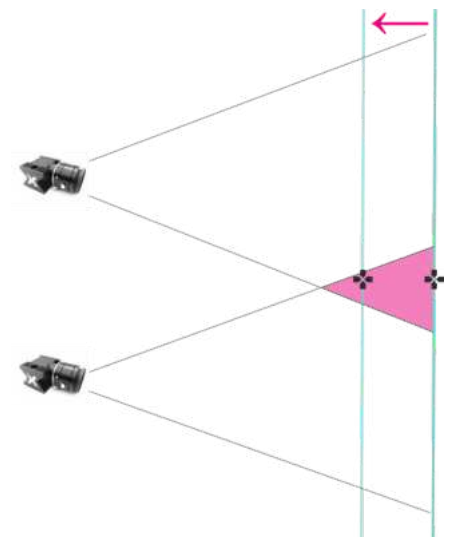
Advanced Vibrography:

The X-Sight ALPHA DIC software now offers advanced frequency analysis capabilities, enabling you to evaluate the frequency of periodic movements in measurements in real-time without additional post-processing. The frequency X/Y/Z value types are available for Point Probes, and you can access frequency computation parameters in the method settings for Vibrography options.

This allows immediate information display on the canvas, giving better insights into your dynamic analysis, where you can easily and in real-time get info about the dominant frequency of the point's movement.

New Feature: Perspective Removal Mode

The perspective removal mode offers an innovative solution for adjusting measurements when out-of-plane movement occurs by utilizing the overlapping fields of view of two cameras. This method, which is less complex than the 3D VE method, effectively improves 2D measurements and boosts the capabilities of joint camera systems. Our software can significantly compensate for out-of-plane movement, enhancing the precision and efficiency of multicamera setups.



X-Sight ALPHA DIC 2024 release integrates the following 17 new features:

- Added perspective removal mode (Partial/World) using Anchor Points (2.5D)
- Added True Strain value type to all line-based probes
- Added Frequency X/Y/Z value types to Point Probes (Vibrography module)
- Added frequency computation parameters to method settings (Vibrography Options)
- Added batch recording option to Vibrography module
- Added default line multiplier button to Camera Panel
- Added Message Prefix parameter to Digital I/O
- Added Multiple Probe Selection option to 2D canvas
- Added Focus Tool to Camera Panel
- Added Copy to Clipboard button and CTRL+C command to 2D canvas
- Improved time format in longer measurement (with hours and minutes)
- Added 3D Offline Method creation
- Added Video Export function to Post-Process
- Added Brightness Indicator button to Real-Time methods
- Added Unified scale range type
- Added Linear/Discrete (arbitrary # of steps) color scale type to General Settings
- Improved overall computation performance (tensors, correlation)

Bug Fixes / Minor Tweaks:

- Fixed compatibility of exports with Auto Refresh in Result Reader
- Disabled data seeker during computation in PP
- Fixed possible nullable Retainable/Disposable problems (rare issues)
- Added focal length and working distance to calibration overview
- Changed Vector Multiplier option to arbitrary number selection
- Changed vector color in 3D graph for consistency
- Fixed synchronization of XIMEA cameras
- Optimized vector rendering of DIC areas (+ various other minor display operations)
- Unified relative timestamp in exported frame data and input data
- Optimized probe data history storage (memory usage when computing Velocity, Acceleration, Poisson)
- Block API commands when a wizard is open
- Added timestamp to saved input data for Post-Process/Result Reader export

Contact

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Technical support

Ask questions or online support at:
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