

VIC-3D 10

Taking Digital Image Correlation to the Next Level



Correlated Solutions is proud to announce the release of VIC-3D 10, an unparalleled DIC workspace with features designed specifically to facilitate 3D data analysis and visualization. Building on *iris*, the data visualization engine introduced in Version 9, the all-new VIC-3D 10 delivers a range of new capabilities that broaden DIC's scope for FFT projects, FEA validation, and integrated stress analysis. In addition, the *iris* workspace has been significantly updated to provide even more flexibility and functionality to display your DIC analysis clearly and professionally. Contact our Sales Team today to discuss your application and to learn more about a limited-time update offer.

New Features in VIC-3D 10

The image shows six graphs arranged in a 2x3 grid. The top row shows Output/Input for Displacement, Velocity, and Acceleration. The bottom row shows Input/Output for Compliance, Mobility, and Accelerance. Below each graph are labels: Compliance, Mobility, Accelerance, Dynamic Stiffness, Mech. Impedance, and Dynamic Mass.

Frequency Response Functionality

New frequency response function measurements integrate force input data with a powerful FFT module for complete response analysis.

The image shows three stress maps labeled 'SXX (Loaded) - Max Difference = 5.14 MPa'. The first map is 'ANSYS', the second is 'VIC-3D 10', and the third is 'ANSYS - VIC-3D 10'.

Expanded FEA Validation

In conjunction with FE simulations in Abaqus™ & Ansys™, users can now more effectively and efficiently validate FEA results.

The image shows a 3D visualization of a component with a color-coded surface. An inset plot shows 'ODS amplitude detected at 26 nanometers' with a red arrow pointing to a peak.

FFT Vibration Visualization

New FFT vibration visualization in *iris* allows for in-plane & out-of-plane ODS to be displayed in stunning, high-resolution graphics.

Virtual Strain Gauge Analysis

New VSG analysis tool automates & streamlines the determination of optimal VSG size in accordance with the DIC Good Practices Guide.

The graph shows a plot of $\epsilon [10^{-6}]$ versus 'Lagrange' (0 to 200). It features a bell-shaped curve with multiple overlapping lines, representing different VSG sizes.

Integrated Stress Analysis

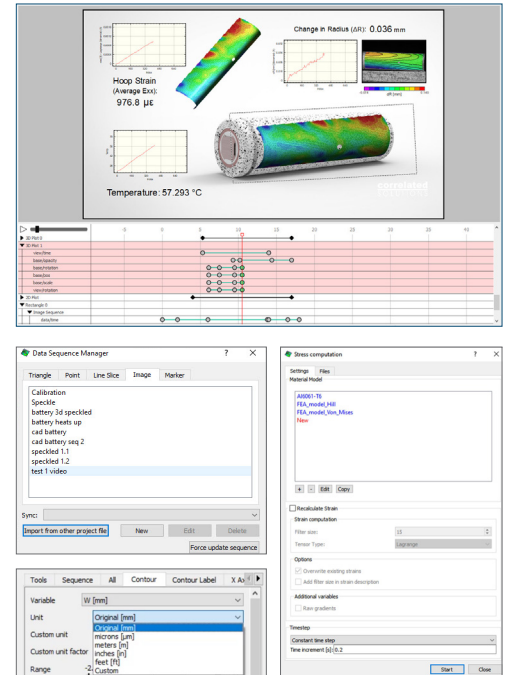
Integrated stress analyzer converts strain history to stress with models defined through a dialog or through JSON files.

The image shows two stress maps. The left one is a 2D map of a tensile specimen with a color scale for $syy [Pa]$ ranging from $-0.04e+05$ to $3.1e+08$. The right one is a 3D map of the same specimen with a color scale for $sxx [Pa]$ ranging from $-0.04e+05$ to $1.3e+08$.

Stress of Al 6061-T6 tensile specimen

DIC workspace improvements, *iris* updates & more, now in VIC-3D¹⁰

- Import extractions, image & data sequences from other projects for direct comparison and improved visualization
- Improved visualization of extracted data on 2D and 3D plots
- Multiple *iris* documents in a single project
- Customizable color maps for contour plots
- Improved data probing in 2D and 3D plots
- Improved data extraction facilities
- Improved unit management for all variables
- New global preferences dialog for report documents, 2D & 3D plots, graphs, and more
- FFT data may be exported in Universal File Format (UNV)
- Support for the newest 64+ core processors enabling analysis at over 1,000,000 points per second
- Updated Python module to support latest Python versions
- Updated VIC-Snap Remote App for Android platform



We invite you to visit our website for details on the powerful new VIC-3D 10 software, a range of new hardware, and a special, limited time upgrade offer!

correlatedsolutions.com



	VIC-3D LS	VIC-3D QX	VIC-3D HS	VIC-3D UHS
Camera Resolution	2.3 MP - 45 MP	12.3 MP	Up to 4 MP	400 x 250 pixels
Frame Rate	400 Hz - 16 Hz	Up to 335 Hz	Up to 500 KHz *	Up to 5 MHz **
In-Plane Resolution	1/200,000 • FOV	1/200,000 • FOV	1/100,000 • FOV	1/50,000 • FOV
Out-of-Plane Resolution	1/100,000 • FOV	1/100,000 • FOV	1/50,000 • FOV	1/25,000 • FOV
Strain Resolution	down to 10 µε			
Strain Range	from 0.005% to > 2,000%			
Analog Data Recording	Up to 32 inputs	Up to 16 inputs	8 inputs	10 MS/s / 4 inputs
Full-field Real-Time Analysis	Yes, up to 10 Hz	Yes, up to 10 Hz	n/a	n/a
VIC-Gauge 3D Real-Time Analysis (output of points, gauges, extensometers, etc.)	Yes, up to 200 Hz Up to 4 real-time analog outputs	Yes, up to 200 Hz Up to 4 real-time analog outputs	n/a	n/a
FFT Module	Available with VIC-3D Fatigue & Vibration Module	Available	Available	n/a

*Achievable at reduced resolutions, **Achievable at full resolution