

# Advanced Visual Analytics Tool for Non Destructive Testing

Avizo® software provides comprehensive features for non-destructive analysis and 3D visualization of complex structures and materials. Scientists and engineers can visualize and analyze their datasets in a number of different ways: porosity, voids distribution, cell size distribution, connectivity between the cells, etc.



Casting Inspection  
Image : North Star Imaging

## Powering 3D Visualization and Analysis of Complex Structures and Materials

### Multi-modal Data Processing,

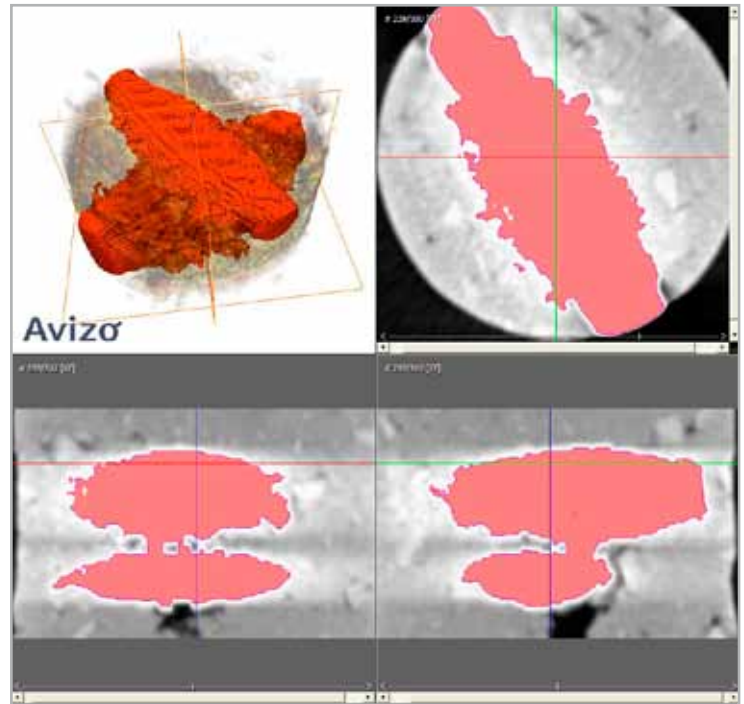
Avizo's high-end image enhancement, 3D model reconstruction, and data fusion techniques enable the NDT user to efficiently import and process a wide range of 2D/3D multi-modal data (CT scans, micro-tomography, PET, MRI, ultrasonic and Eddycurrent data, etc.), providing simultaneous and comprehensive analysis of the specimen structure.

### Advanced Analysis of Porous and Multiphase Media

Avizo's 3D volumetric reconstruction and visualization techniques enable the analysis of complex structures such as porous materials and multiphase systems. Avizo's skeletonization and network characterization features provide comprehensive understandings of data sets of dendritic and fracture networks.

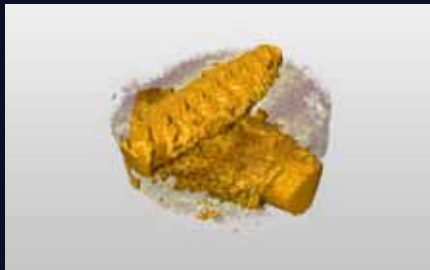
### Powerful Quantitative Analysis

Avizo allows the user to extract properties of individual feature elements from images or simulated data. Measurements can include counts, distributions, areas, volumes, average thickness, pore diameter, orientations, and more. These operations can be performed manually or automated for repetitive tasks. The user can benefit from advanced query, plotting and export capabilities through the built-in spreadsheet tool or external applications such as MS Excel® or Matlab®.

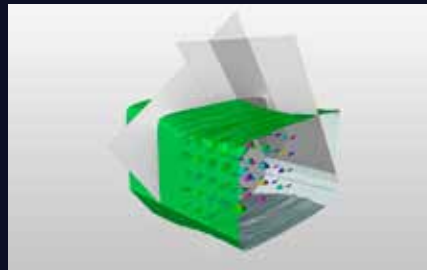


Concrete inspection

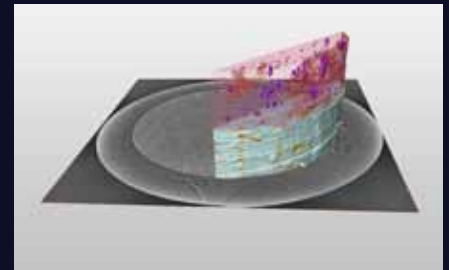
# Advanced Visual Analytics Tool for Non Destructive Testing



Concrete analysis



Ductile inspection  
Image: Prof. David S. Wilkinson from McMaster University



Corrosion evolution in aluminium aerospace alloy  
Image: Dr. B.J. Connolly (University of Birmingham)

## Variance Comparison

Avizo's automated analysis workflow efficiently supports variance comparison tasks. Reference geometry data can be superimposed with the measured geometry to get an instant overview of the deviation(s) at each point of the specimen.

## On the Fly Pre-processing of Very Large Data Sets

Avizo's seamless integration with GPU Computing techniques bring interactive image processing of very large data sets, where the progress can be tracked and influenced interactively.

## Roaming Gigabytes of Volume on Your Desktop

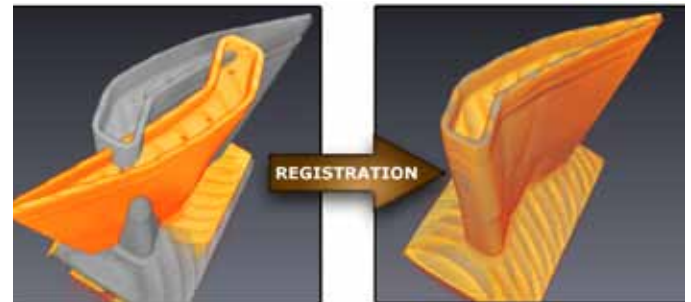
Avizo offers a unique approach to allow users to interactively navigate through data sets that are larger than their system RAM. This multi-resolution technique allows for interactive visualization and navigation through vast amounts of data.

## Versatile and Extensible Architecture

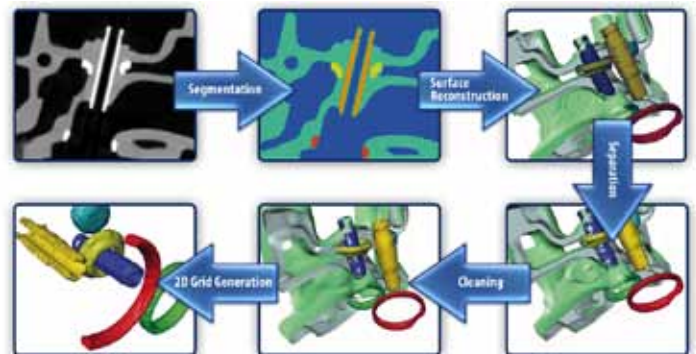
Avizo's versatile and extensible architecture can easily be integrated into a wide range of NDT workflow configurations, from the data pre-processing to the post-processing stage, from laptops to fully immersive environments, including cluster set-ups and remote hardware.

## Avizo Configurable Solutions

Avizo is a flexible and modular software that can be configured according to your specific 3D data visualization and analysis needs.  
[www.avizo3d.com](http://www.avizo3d.com)



Advanced image registration: fusion of multi-modal data (Scan, CAD model, etc.) to perform variance comparison



Advanced image segmentation

## Join a Partner Committed to your Success

Dedicated to serving our customers, VSG brings more than 20 years experience in 3D visualization. Our Professional Services team is available to increase your efficiency through training, consultancy or custom development covering the whole life cycle of your project.

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