

EnginSoft is a premier consulting firm in the field of Simulation Based Engineering Science (SBES) with a global presence. It was founded in 1984, but its founder and initial employees had been working in SBES since the mid '70s. Throughout its long history it has been at the forefront of technological innovation and remains a catalyst for change in the way SBES and CAE technologies in general are applied to solve even the most complex industrial problems with a high degree of reliability.

Today, EnginSoft is comprised of groups of highly qualified engineers, with expertise in a variety of engineering simulation technologies including FEM Analysis and CFD, working in synergic companies across the globe. We are present in Italy, France, Germany, the UK, Sweden, Turkey and the U.S.A. and have a close partnership with synergetic companies located in Greece, Spain, Israel, Portugal, Brazil, Japan and the U.S.A.

EnginSoft works across a broad range of industries that include the automotive, aerospace, defense, energy, civil engineering, consumer goods and biomechanics industries to help them get the most out of existing engineering simulation technologies.



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DATA SHEET

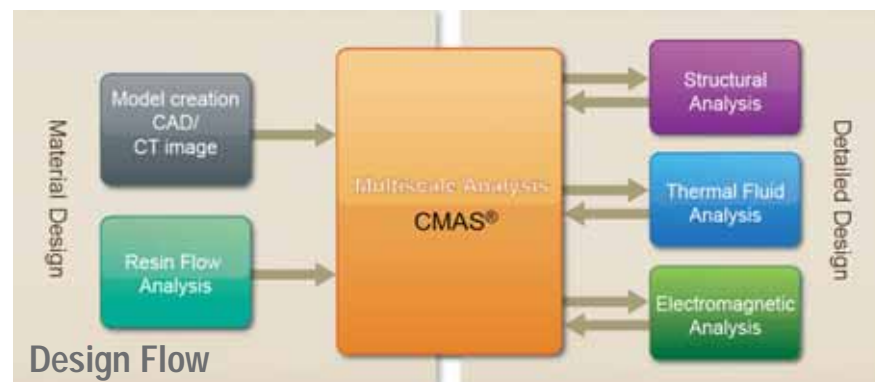


A new tool for multiscale
analysis of materials



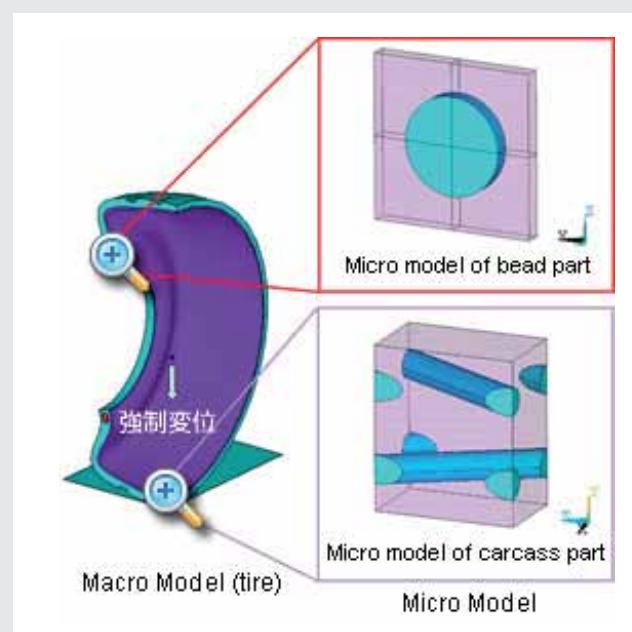
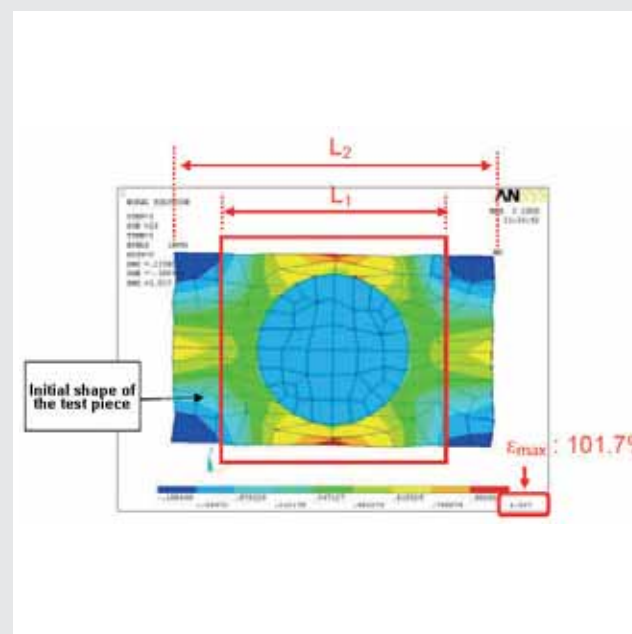
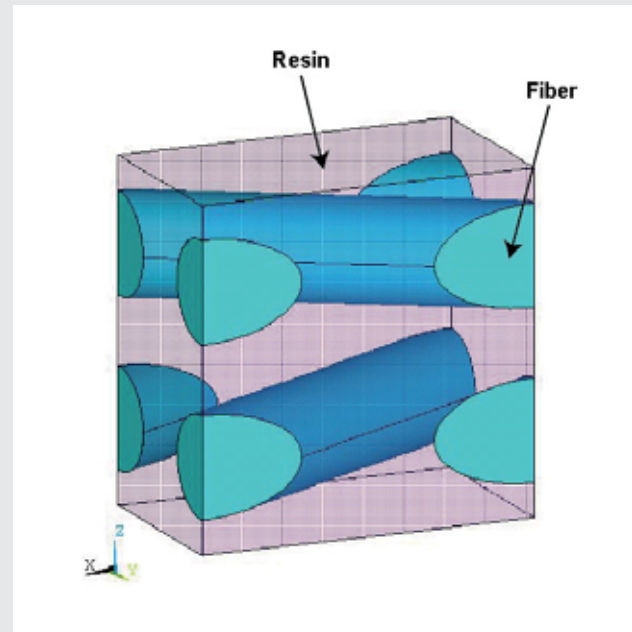
Determine Anisotropic Material Properties and Improve Productivity and Quality of Composite Material Articles

In recent years across many industries the trend has moved towards the use of advanced composite materials such as CFRP. As such, the need for simulations that consider composite materials in product development is on the rise. CMAS is a multiscale analysis tool that is capable of performing detailed simulations that consider composite material characteristics. The analysis engine uses ANSYS to calculate equivalent material properties through numerical material testing and has all the multiscale analysis functions required for coupled analysis of micro and macro structures such as macro model analysis and localization analysis.



CMAS is a product

CYBERNET



A new tool for multiscale analysis of materials

1. Micro Model Creation

ANSYS® DesignModeler or a 3D CAD tool is used to create the micro model for numerical material testing.

2. Homogenization Analysis

After mesh generation and entering the boundary conditions in ANSYS®, perform numerical material testing to calculate the modulus of elasticity and other homogenized material properties.

3. Macro Structure Analysis

Apply the homogenized material properties output from the homogenization analysis results as the material properties of the macro model, and then perform macro model analysis and verification again.

4. Localization Analysis

Select a region from the macro model analysis and then analytically monitor the localized behavior within the microscopic structure at that location.

