

physics on screen

A Guide to the Superiority of BETA CAE Systems Software Suite

Executive Summary



B

The ANSA / EPILYSIS / META software suite offers an abundance of multidisciplinary engineering simulation tools and capabilities that help you transform analyses processes and enjoy top levels of performance and models quality. Coupled with our dedication to offer the best-in-class support services and working closely to help you streamline your simulation working ways, you gain high yield returns on your simulation and investments.



In any Industry, for any system or sub-system, and for any type of engineering analysis, achieve up to 90% time-reduction and up to 98% ROI increase.

Perform analyses and achieve objectives that are not feasible by using any alternative software.



Engineering Simulation has become a central part of the product development cycles of any contemporary manufacturer who wishes to innovate and keep up with competition. The everincreasing complexity of industrial products, the rise of the standards for their specifications, the advancements in the materials properties, and the corporate operations in a global scale, are only few of the factors that increase the performance requirements for the simulation software and the processes these are integrated in.

The selection of the right software, based on the proper criteria, is the cornerstone of success. The ideal choice is the employment of high-performance tools, that are versatile enough to be exploited in a wide range of tasks, that allow collaborative work, offer a balance between sophistication and ease of use, and are properly technically supported.

At BETA CAE Systems, we concentrate our efforts in helping you achieve your vision for your creations, by offering the right software tools and services to meet your expectations in saving time, reducing costs, and achieving top quality simulations. Our ANSA / EPILYSIS / META software suite, our flagship offering, developed based on the Industry's requirements, is the standard solution for high-performance, multivariant and multidisciplinary CAE.

Solutions superiority

The combined and fully integrated ANSA / EPILYSIS / META suite is the preferred choice of Industry worldwide as it seeks exceptional performance to impact its product development processes. Benchmarks performed by OEMs and their suppliers have shown 35% to 96% CAE process performance improvement over competitive software. At the same time, the resulting model quality improved by up to 60%.

This performance improvement coupled with the short induction time makes our customers see a Return-OnFrom 35% to 96% CAE process performance improvement over competitive software

Up to 60% model-quality improvement

From 60% to 98% ROI increase

Investment (ROI) increase ranging from 60% to 98%. These results are based on comprehensive business analysis that accounts for the enhanced performance improvement along with all cost components, such as software lease and employee costs along with associated training time and costs.

These metrics, which establish the superiority of ANSA, EPILYSIS & META's CAE processes, are confirmed in independent industry benchmarks and testimonials. Our software was proven to be not only the most effective CAE pre- and post-processing tool, but the only one which could perform several advanced and cutting-edge simulation tasks. The speed and versatility of ANSA / META is a result of the synthesis of concepts developed and perfected by BETA CAE Systems. Innovation, performance, robustness, and the beyond-expectations support and responsiveness to customers' requests, have firmly positioned ANSA / META as the leading CAE pre- and post-processing technology in the Industry for over a decade.



ANSA is an advanced multidisciplinary CAE pre-processing tool that provides all the necessary functionality for full-model build up, from CAD data to ready-to-run solver input file, in a single integrated environment.

ANSA offers a wide range of features and tools. The list of productive and versatile features is long and the alternative tasks and processes that can be completed using them are countless. The data management capabilities and the large number of supported solvers and disciplines enable unique multivariant and multidisciplinary modeling implementations. *"ANSA has proven to be robust and efficient, and enabled us to reach our targets."*

Highest level quality and technology for modeling processes.

Single environment for interoperating, complete multi-disciplinary modeling.

Cutting-edge simulation data management and discretization.

Abundance of modeling tools and capabilities.

Flawless ready-to-run files generation for numerous solvers.

Advanced process automation capabilities.



EPILYSIS is a contemporary solution in the field of Finite Element Analysis, embodying the accumulated knowledge from 30 years of collaboration with the CAE community.

It covers numerous analysis types and intends to bridge the gap between pre- and postprocessing for disciplines such as Structural, NVH, Optimization, and more. *"The most promising and dynamically developed solver for our contemporary needs."*

Accurate and effective capture of linear and non-linear design behavior.

Shape, Topology, Size, and Topometry optimization.

Manufacturing constraints consideration, Composites optimization, predefined optimization workflows.

Effortless setup through ANSA assistant tools.



META is a thriving multi-purpose postprocessor meeting diverging needs from various CAE disciplines.

It owes its success to its impressive performance, innovative features and capabilities of interaction between animations, plots, videos, reports and other objects, in both the screen-based and Virtual Reality worlds.

Its capability for high level of process automation established META as a standard accelerator of post-processing tasks, from results' visualization, to report generation. *"We succeeded in reducing significantly the effort, time and cost required for our procedures until reporting."*

Effortless, automated results-handling.

High quality graphics and visualization techniques.

Outstanding performance and smart functionality in handling large models.

Countless tools including an advanced graph tool, calculations, correlation studies on loaded results.

Breakthrough collaboration tools via remote desktop interface and Virtual Reality rooms.

Automatic generation of reports.

Our pillars of success

BETA CAE Systems transformed simulation by introducing revolutionary automation software tools and practices into Simulation and Analysis processes almost 30 years ago.

Committed to our mission to enable engineers to deliver results of high value, we continue to offer state-of-the-art, high-performance software and best-in-class services. Our simulation solutions liberate low risk and high Return-On-Investment innovation.

The groundbreaking technology, the excellent services and our high standards of business values and ethics are the three pillars on which BETA was founded and grows since then.

Groundbreaking technologies

"BETA develops and delivers world class software that has forever changed engineering." Outstanding Services

"I would like to express my gratitude to the support team for being very helpful and professional."

Esteemed business ethics

"They never promise something they can't deliver."

About BETA CAE Systems

BETA is a simulation solutions provider, dedicated to the development of state-of-the-art software systems for CAE. For more than 30 years, we have been developing software tools and delivering services for the front-runners in numerous sectors by listening to their needs and taking up even the most demanding challenges.

For more information on our company, our products and our services, visit www.beta-cae.com.

Headquarters

BETA CAE Systems International AG Platz 4, CH-6039 Root D4, Switzerland +41 415453650 ansa@beta-cae.com www.beta-cae.com

© 2021 BETA CAE Systems International AG Features subject to change without notice



physics on screen