INAS
power to change

YOUR PARTNER FOR
CAD/CAM/CAE/PLM SOLUTIONS
TECHNICAL SUPPORT
TRAINING
CONSULTING
COMPANY HISTORY

Founded 1991 with origins in the aviation industry, INAS maintains its position of major provider for high-end CAD/CAM/CAE/PLM software solutions, training, technical support and consulting services. The company is being recognized on the Romanian and international market as a leading technical centre for a wide spectrum of industrial applications from automotive and heavy equipment to nuclear and defence.

WHAT THE COMPANY DOES

As the pioneer of numerical simulation within the Romanian industry, INAS became known as:
- Leading technical consulting centre providing prompt and quality engineering services (design and simulation) for a wide spectrum of industrial applications from automotive and heavy equipment to nuclear and defence.
- Centre of high technology transfer, providing our customers with an integrated system for design, manufacturing, verification and simulation, training and technical support for the best in-class CAD/CAM/CAE/PLM solutions.

VISION

INAS was founded on the belief that working together as a team with our customers, creating a win-win, highly profitable situation, are fundamental to a successful and long term working partnership. This is why we integrated in our system innovation and technical excellence as premises which allow INAS to provide high value-added solutions and services.

MISSION

As major provider for high-end CAD/CAM/CAE/PLM software solutions, training and consulting, we are trusted advisors who help our clients gain insight to improve product efficiency, reliability, and performance using engineering software. Our mission: serve our customers not good but great.

VALUES

We are a values-driven organization. Our values reflect the thinking of our founder, who was a major force in shaping the firm. Our values have been updated in small ways to reflect the changing times. They sustain both our long-term strategy as a company and the way we serve our clients on daily basis. We always:
- Aim for to the highest professional and ethical standards
- Put client interests ahead of the firm’s and preserve confidence
- Manage client and company resources cost-effectively
- Bring innovations in management practice and relationship to clients
- Build client capabilities to sustain improvement
- Build enduring relationships based on trust.

BUSINESS CONCEPT

Major provider for high-end CAD/CAM/CAE/PLM software solutions, tech support, training and consulting services.
PRODUCTS

CAD/CAM/CAE/PLM software:
- ANSYS: Structural Mechanics, Explicit Dynamics (including crash), CFD, Electromagnetics and Multiphysics
- PTC: Creo (CAD/CAM software), Mathcad (mathematical calculation), Windchill (PLM), Arbortext (technical illustrator)
- Moldex3D (plastic injection)
- Vericut (CNC simulation)
- NCGCAM (CAM for HSM)
- Magmasoft (casting simulation)
- Bentley (infrastructure)
- Genesis (optimization)
- Total Materia (material database: metals, plastic, polymer, composite, etc)

SERVICES

- Consulting (see next page)
  - FEA, CAD/CAM, Injection Molding Simulation, Casting Simulation
- Research
- Technical Support
- Training

BUSINESS COMPETITIVENESS

- The only software reseller in Romania covering the entire development and production cycle with CAD/CAM/CAE/PLM software solutions and services
- Tech support for ALL products in our portfolio
- 20 people 100% assigned in consulting projects => a very good connection with the industry and high accuracy of work.

SERVICE PLEDGE

The company is committed to deliver the services in a timely manner and with high accuracy of results. Customization of services is also an important component of our job, we always seek to offer the most suitable solution to every customer, no matter we’re talking about software implementations, tech support and training or consulting projects. We’re first engineers, which means our support and consulting work is software-independent.
TECHNICAL CAPABILITIES FOR CONSULTING PROJECTS

CAE

- Structural
  - Static and dynamic (time response), linear and nonlinear analysis / any industry
  - Dynamic (frequency response) analyses / any industry
  - Fatigue life estimation study / any industry
- Thermal
  - Steady state and transient / any industry
- Fluid dynamics (CFX & FLUENT)
  - Steady state and transient / any industry
- Coupled field
  - Steady state and transient / any industry
- Explicit solutions (LS-DYNA, AUTODYN)
  - Crash (automotive, rail industry), impact (automotive, defence, aerospace, ..), collision and drop test studies
  - Penetration, blast and explosion studies (defence, aerospace, ..)
- Electromagnetics (Low and High Frequency)

CASTING SIMULATION

- Gravitational and high / low pressure casting simulation, investment casting, rotacast
- Ferrous (steel and iron) and non-ferrous metals casting simulation
- Mould filling and solidification simulation
- Quality predictions (porosities, hot crack, cold crack, ..)
- Material properties (iron), residual stress and deformed shape (iron and steel)
- Optimization for casting process and quality of product

PLASTIC INJECTION SIMULATION

- Filling patterns to predict manufacturing problems, as weld lines, air traps, short shots, ..
- Density variation and melt flow behaviors during the packing process to determine gate freeze time, efficient packing time and pressure, ..
- Optimization of the molding and cooling circuit designs to reduce time
- Shrinkage and warpage behaviors
- Evaluate insert molding, over molding and multi-shot sequential molding process
- 3D fiber orientation
- Special injection technologies: GAIM, WAIM, MuCell, ..

CAD

- Conceptual, Technological and detailed CAD/CAM
- Detailed & collaborative design, 3D modelling, advanced assembly and part detailed production drawings
  - Complex geometries
  - Large assembly
  - Sheet metal parts
  - Styling aesthetics surfaces
  - Etc.
- Tooling design starting from original part for:
  - plastic parts (mould design - mould cores and cavities, complete mould assembly)
  - sheet metal parts design and manufacturing
  - casted parts: mould, gating, dies
- CAD import and repair from various CAD packages;
- CAD preparation for simulation packages
- Design of manufacturing process, computer simulation of the real NC process.
- Development of specialized NC post-processors for specific CNC equipment

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