



SAMTECH to release the FEA suite SAMCEF V11.1

Liege, Belgium, February 2006. SAMTECH, the European technology leader for the development of Integrated Computer Aided Engineering Solutions, announces today the launch of the commercial release 11.1 of its general purpose Finite Element Analysis software suite SAMCEF for linear and non-linear thermo-mechanical analyses.

SAMCEF is recognised as one of the most powerful FEA suites in the world. It provides all the classical capabilities for linear stress analysis (SAMCEF Asef), buckling analysis (SAMCEF Stabi), modal analysis (SAMCEF Dynam), transient and harmonic response with deterministic (SAMCEF Repdyn) or random loading (SAMCEF Spectral). With respect to its world-class competitors, SAMCEF offers unique capabilities in rotor dynamics (SAMCEF Rotor/RotorT); it is also renowned for its integrated non-linear module SAMCEF Mecano/Thermal embedding in one single solver rigid and flexible multi-body simulation, non linear metallic/composite structures and thermal analysis. Linear modules of SAMCEF can also be used after a non-linear analysis. This allows for example to perform a modal analysis of a pre-stressed structure or to predict the resonances of a flexible mechanism in various configurations.

The latest version of SAMCEF is packed full of new features designed to improve the overall performance, robustness, ease-of-use and simulation reliability of the integrated SAMCEF products suite, giving access to more and more challenging analyses. With more than 100 new enhancements, **SAMCEF V11.1** offers major advances in mechanical modelling, thermal analysis, coupled physics, parallel computing, analysis solutions and results post-processing. Some important enhancements of **SAMCEF V11.1** include:

- Enhanced modelling capabilities for large strains mechanical problems;
- Cost efficient quadratic contact formulation;
- New modelling capabilities for coupled fluid structure interaction problems, including easier definition of fluid cavities and free surfaces, automatic handling of heterogeneous meshes and new compressible tetrahedron fluid element;
- Implementation of thermal ablation and pyrolysis analyses (SAMCEF Amaryllis) within the same software environment as SAMCEF Mecano and SAMCEF Thermal;
- Optimized default options of solution strategy parameters in SAMCEF Mecano;
- New time integration schemes in SAMCEF Mecano: Chung-Hulbert and Generalized midpoint method;
- Noticeable performances improvement in terms of models sizes, computation and storage times;
- Implementation of a Parallel Solver in SAMCEF Mecano;
- ...

SAMCEF V11.1 runs on Linux, Unix and Windows platforms. The Linux versions are now available for processors x86, Itanium2, AMD64 and EM64T.

*"SAMCEF is used by industry for several decades with major references in all the sectors. After being mainly developed for Aerospace & Defence sector, the use of this high class and well validated software environment was also progressively extended to other sectors of mechanics where high quality and validated numerical simulations are more and more required. The new developments made in SAMCEF by SAMTECH are strategic to help its customers access to the state-of-the-art numerical methods in order to reduce the time-to-market of their products and to lower the development costs". Explains Didier Granville, SAMTECH Chief Marketing Officer. "Depending on the industrial constraints, SAMCEF solvers can be used either directly within **CATIAV5** or driven by **SAMCEF Field**, the standalone and user friendly CAD Based CAE environment developed by SAMTECH. Both user environments offer very efficient and innovative capabilities enabling our customers to be always more competitive."*



About SAMTECH

SAMTECH s.a. is a European leading provider of Computer Aided Engineering (CAE) software for Finite Element Analysis (FEA) and Multi-Disciplinary Optimization (MDO). The company was founded in 1986 from the Aerospace Laboratory of University of Liege (LTAS). SAMCEF was nevertheless already developed at and commercialised from University of Liege since the seventies.

Today, SAMTECH proposes a very competitive range of generic software products for linear FEA and non-linear FEA/MBS thermo-mechanical problems, including metallic or composite materials (i.e. SAMCEF Linear, SAMCEF Mecano, SAMCEF Thermal...) and the Multi-Disciplinary Optimization platform BOSS quattro.

Besides, SAMTECH also provides Professional Solutions. Each Professional Solution answers the need for the specific industrial sector for which it has been developed (i.e. SAMCEF for Rotors, SAMCEF for Wind Turbines, SAMCEF for Machine Tools, TEA Pipe...).

SAMTECH most recent product, CAESAM, is a high level CAE centric Application Framework allowing the customisation and the management of the whole engineering process, involving any commercial software and in-house skill tools. This environment based on Knowledge Based Engineering concept encapsulates customer skills and knowledge into Analysis Processes and Analysis Methods and ensures reusability of models in order to reduce Time-to-Market.

SAMTECH Group currently employs more than 200 people in Belgium, France, Germany, Italy, Spain and UK for technical support, sales and services. The company works also in close collaboration with a network of technically advanced distributors in other markets all over the world. SAMTECH is a Dassault Systemes partner for the development of its products embedded in or connected to CATIAV5. SAMTECH is a partner of CEA and JRC for the development and the commercialisation of the explicit code EUROPLEXUS (impact, explosion and fluid-structure interactions). SAMTECH is also NAFEMS member and is certified to ISO9001:2000 quality standards.

Visit <http://www.samcef.com> for details on SAMTECH Products/Services offer.

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