



SAMTECH will demonstrate SAMCEF Field V4 at MICAD 2004

With SAMCEF Field V4, SAMTECH offers to SAMCEF users numerous facilities for the modeling, the Linear and Non-Linear FE Analyses and the associated post-processing

Liège, Belgium – March 2004 - SAMTECH, the European leading Technology Provider for the development of Integrated CAE Solutions, announces the presentation of the new release 4 of SAMCEF Field, the SAMTECH CAE integrated modeling environment, at MICAD 2004.

With **SAMCEF Field**, SAMTECH enables users to perform advanced linear and non-linear analyses with metallic or composite materials using **SAMCEF** solvers. This allows designers and engineers from all the industrial sectors (Aeronautic, Space, Defense, Ship Building, Energy, Car, Trucks, Machine Tool, Railway, Sport industries...) to predict the structural performances of their products, from the very early phases of the design process to the last detailed verifications or the re-engineering of existing systems.

In addition to its interfaces with CAD, its local parametric modeler and its powerful meshers, **SAMCEF Field** supports linear static analysis, modal analysis, linear buckling analysis, stationary thermal analysis, non-linear structural analysis, multi-body simulation and composite material structure analysis in both linear and non-linear conditions. All these analyses are accessible from the same environment and with a problem definition that can be completely based on the same geometrical support, allowing thus easy modifications of mesh refinement, the switch from rigid to flexible body behavior, the switch from mechanical to thermal analysis, from metallic to composite material behavior, from linear to non-linear analysis, from multi-body simulation to structure analysis...

Among all the new features developed in the version 4 of **SAMCEF Field**, concerning each phase of the CAE process, let's quote the new proprietary interface with CATIA V5, the possibility to manage Super-Elements and the new 3D meshers.

- **Interface with CATIA V5:** In **SAMCEF Field V4**, users can import directly CATIA V4 (.model) and CATIA V5 geometries ('part' and 'assembly'). Users can either lead an analysis completely within **SAMCEF Field** or complete the imported geometry by physical data and then launch the analysis. This new version offers **SAMCEF Field** users the easy reading of assemblies and their easy management.
- **Create your component database thanks to SAMCEF Field Super-Elements:** With **SAMCEF Field**, the users can now decrease the CPU time of numerical simulations through the reduction of the heavy meshes into Super-Elements using classical reduction techniques (Craig Bampton). The novelty is that the reduction is directly performed from the model defined on the CAD geometry.
- **SAMCEF Field meshers:** 3D Meshes can be easily obtained by extension of 2D meshes. The extension mesh can be either hexahedral or prismatic. Users will appreciate the availability of this new powerful and simple feature. Let's also highlight the possibility to import NASTRAN, PATRAN, ANSYS, IDEAS meshes.

"SAMCEF Field V4 is addressing more and more disciplines of Computer Aided Engineering, that is the SAMTECH core business. This significantly facilitates the communication between designers, mechanical, thermal and stress engineers who were previously working in separated CAE environments." said Didier Granville, Chief Marketing Officer of SAMTECH. "The level of integration reached by SAMCEF Field V4 is also amplified by the enormous effort performed by



SAMCEF developers since 1995 in order to get a perfect integration between SAMCEF analysis modules”

About SAMTECH

Founded in 1986, SAMTECH is now the European Technology leading provider of scientific analysis/optimization software (FEA, MBS, MDO), professional solutions and associated services. SAMTECH develops and commercializes

“General-purpose software tools”: this SAMTECH offer includes the general linear and implicit non-linear Finite Element Analysis package SAMCEF with the CAD/CAE modeling environment FIELD, the general explicit and fast dynamics code EUROPLEXUS; the task management and optimization platform BOSS quattro; TEA Mecano and TEA Thermal CAA V5 Based as non-linear thermo-mechanical solution embedded in CATIA V5 and SAMCEF Gateway CAA V5 Based, the SAMCEF integrated interface within CATIA V5.

“Professional solutions”: this SAMTECH offer is based on its general-purpose software tools and is dedicated to specific domains of application like rotor dynamics, modeling of composite structures, mechatronic modeling of machine-tools, modeling of high voltage substations, modeling of pipes for automotive industry...

“Third party and customized solutions” like the SAFE tool (fatigue analysis of aeronautic structures) and the Application COMPOSITES (analysis of aeronautical structures made of composite materials) from AIRBUS, where SAMTECH provides its clients with services such as development, reengineering, packaging and deployment of proprietary professional solutions on the customer site.

“Customized multi-physics solutions”, like OOFELIE Vibroacoustics and OOFELIE Piezoelectric. OOFELIE is commercialized by Open Engineering, the SAMTECH subsidiary, that allows SAMTECH to be present on the multi-physics design markets and to provide services for the development of original highly coupled analysis solutions covering specific needs.

Visit www.samcef.com for further details on SAMTECH Product/Service offer!

For further information about **SAMCEF Field v4** please contact :

Didier Granville, Chief Marketing Officer

SAMTECH

Parc Scientifique du Sart Tilman

Rue des Chasseurs-Ardennais 8

4031 Angleur

tel + 32-4-361.69.69

fax + 32-4-361.69.80

email : ddier.granville@samcef.com

<http://www.samcef.com>