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## BMW Sauber F1 Team Seeks Extra Speed On and Off the Track

BMW Sauber F1 Team is introducing a powerful new supercomputer to increase the power and speed of its flow simulation modelling and help make its car one of the most competitive on the race track. Launched on December 14, 2006 at the company's base in Hinwil, Switzerland, the 512 dual core processor machine will enable the team to perform far more detailed computational fluid dynamics (CFD) calculations faster than ever before.

The new compute power offered by the 512 Intel® dual core processor supercomputer named Albert$^2$, built by DALCO and cooled by American Power Conversion (APC) components, allows full-car simulations to be undertaken to test and further develop the aerodynamic performance of the car, in addition to the aerodynamic testing of components such as the front and rear wings and turning vanes. Other applications include engine and brake cooling.

## Launch of Powerful Supercomputer in F1 to Run FLUENT® CFD Simulations

BMW Sauber F1 Team uses FLUENT® CFD code, one of the most powerful and widely used CFD tools in Formula One racing. FLUENT technology can be applied to a number of areas of the racing car, allowing team engineers to quickly and accurately test a number of possible designs before developing only the most promising for wind tunnel testing. FLUENT software is now part of the ANSYS® CFD suite, from the company's recent acquisition of Fluent Inc.

The launch of the new supercomputer Albert$^2$ coincides with the launch of the new FLUENT 6.3 software, which improves the operational efficiency of this flagship CFD tool. The improvements focus on the FLUENT core solver, delivering greater speed and flexibility to the user. Automatic techniques to use polyhedral meshing have been added, allowing faster convergence of solution. Parallel processing has been enhanced, enabling a near-linear scaling in computing power. All those improvements are to the full benefit of the BMW Sauber F1 Team and can be fully exploited with its new supercomputer.

BMW Motorsport Director Mario Theissen: "Aerodynamics has a crucial influence on the performance of modern Formula 1 cars, with experimental work in the wind tunnel and computational fluid dynamics complementing each other. The launch of Albert$^2$ means a decisive reinforcement of our CFD capacity. Unlike other teams, we are not planning to build a second wind tunnel but will continue to bank on the consistently expanding potential in this area. For the new season, we have set the goal of further reducing the gap to the top. Our new Supercomputer based on Intel technology is an important tool supporting us in this effort."

"The importance of CFD in aerodynamics has grown significantly over the past years. We congratulate the BMW Sauber F1 Team with their success to date, and we are pleased that they plan to expand their use of CFD and continue to use FLUENT software," says Dr. Ferit Boysan, vice president and general manager of the Fluids Business Unit at ANSYS, Inc.

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**About ANSYS, Inc.**
ANSYS, Inc., founded in 1970, develops and globally markets engineering simulation software and technologies widely used by engineers and designers across a broad spectrum of industries. The Company focuses on the development of open and flexible solutions that enable users to analyze designs directly on the desktop, providing a common platform for fast, efficient and cost-conscious product development, from design concept to final-stage testing and validation. The Company and its global network of channel partners provide sales, support and training for customers. Headquartered in Canonsburg, Pennsylvania, U.S.A., with more than 40 strategic sales locations throughout the world, ANSYS, Inc. and its subsidiaries employ approximately 1,400 people and distribute ANSYS products through a network of channel partners in over 40 countries. Visit www.ansys.com for more information.

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**About Fluent Inc.**
Fluent Inc. is a wholly owned subsidiary of ANSYS, Inc. (NASDAQ: ANSS), one of the world's largest providers of computational fluid dynamics (CFD) software and consulting services. Fluent's software is used for simulation, visualization and prediction of fluid flow, heat and mass transfer and chemical reactions. It is a vital part of the computer-aided engineering (CAE) process for companies around the world and is deployed in nearly every manufacturing industry. Using Fluent's software, product development, design and research engineers build virtual prototypes and simulate the performance of proposed and existing designs, allowing them to improve design quality while reducing cost and speeding time to market.

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