

High-performance solutions: FLUENT on Compaq AlphaServer systems

Leading, general-purpose, thermo-fluids analysis tool

Fluent, Inc., is the world's leading computational fluid dynamics (CFD) company with a 15-year history of outstanding customer support and engineering excellence. Fluent's general-purpose software and consulting services are used by engineers in leading corporations worldwide for detailed product development, design optimization, troubleshooting, scale-up, and retrofitting. Digital has long been a recognized leader of high performance computing with over 40 years of engineering innovation. Now that Compaq and Digital are one, the commitment to high-performance computing is even greater. In a successful partnership, Fluent and Compaq collaborate to bring you a highly optimized CFD solution.

The Fluent Solution

FLUENT provides a complete line of flow simulation products tailored for all your engineering needs, available and optimized for Compaq high-performance systems.

FLUENT, FLUENT/UNS, RAMPANT

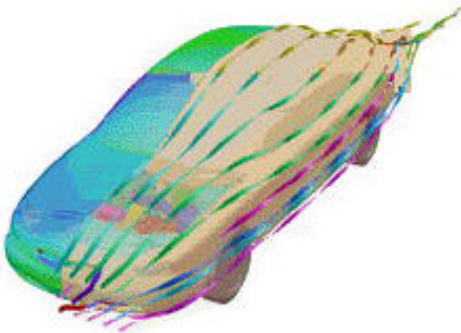
FLUENT, FLUENT/UNS, and RAMPANT are a general-purpose CFD software suite, providing physical models for a wide range of applications including turbulent, reacting and multiphase flows, heat transfer, chemical mixing, and combustion. The FLUENT suite provides full capability on unstructured meshes, so you have easier problem setup and greater accuracy using solution-adaption of the mesh. Fully optimized for high-performance computing, the FLUENT suite supports parallel computing on Windows NT, multiprocessor servers, and clusters of workstations.

The Compaq advantage

Compaq engineering solutions are setting a new standard in performance and quality. Combining optimized software packages from the leading application partners in the engineering industry with the latest high-performance computing technologies, Compaq is moving rapidly to provide you with the most advanced solutions to your engineering problems.

Key Compaq strengths

- Fastest microprocessor today for unmatched application performance
- Advanced 64-bit computing to handle the largest, most complex problems
- Compaq TruCluster technology with high-bandwidth, and low-latency Memory Channel Interconnect enables supercomputer-class performance at a fraction of the cost of traditional supercomputers



Underhood cooling and full-vehicle aerodynamics

FLUENT/UNS's mesh flexibility has dramatically reduced the turnaround time for simulation of complex geometries. Here, the geometric complexity of the flow through the engine compartment is coupled to predict the airflow around the vehicle.



The FLUENT solution, continued

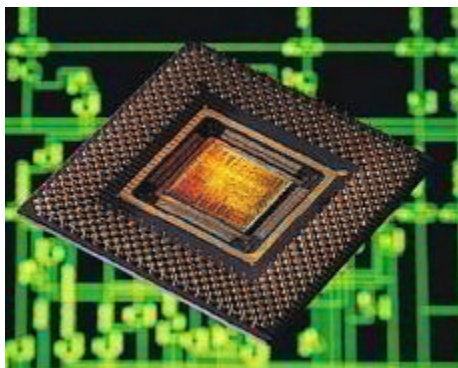
FIDAP

The leading finite-element-based CFD software, FIDAP offers complete mesh flexibility and efficient solution methods that make it the code of choice for many applications. FIDAP's capabilities include general fluid flow and heat transfer, free-surface modeling, non-Newtonian rheology, buoyancy-dominated flow, electromagnetic force modeling, chemical reaction, and advanced radiation modeling.

Preprocessing

Fluent's investment in preprocessing illustrates a commitment to improving the CFD process and to technical leadership in CFD model building.

GAMBIT and TGrid provide a unified set of preprocessing tools for all Fluent products. GAMBIT provides a concise and powerful set of solid-modeling based geometry tools for fast geometry construction. CAD integration includes geometry import from the leading CAD packages. Fluent's meshing technology gives you a full set of tools in a single package: structured hex meshing, automated unstructured hex meshing, triangular and tetrahedral meshing, and prisms or pyramids for hybrid meshes. Fluent's leadership in model building delivers automated tools combined with user control.



AlphaPowered

The Compaq advantage, continued

- Choice of Alpha and Intel processors, UNIX and Windows NT operating systems for flexible deployment
- PowerStorm graphics, the best price-performance graphics available to speed your pre-and -post processing tasks
- Leadership GIGAswitch and MultiSwitch 900 backbone for the ultimate in high performance networked computing
- High-performance, high capacity StorageWorks products to archive large volumes of data
- The scalability and continuing evolution of the Alpha architecture ensures the growth you need to protect and enhance your investment
- Unmatched systems support and integration services ensure the highest availability and the most efficient use of your equipment

**Reduce design costs.
Improve products.
Shorten time to market.**

Think Compaq and Fluent.

For more information, see www.digital.com

or www.fluent.com

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