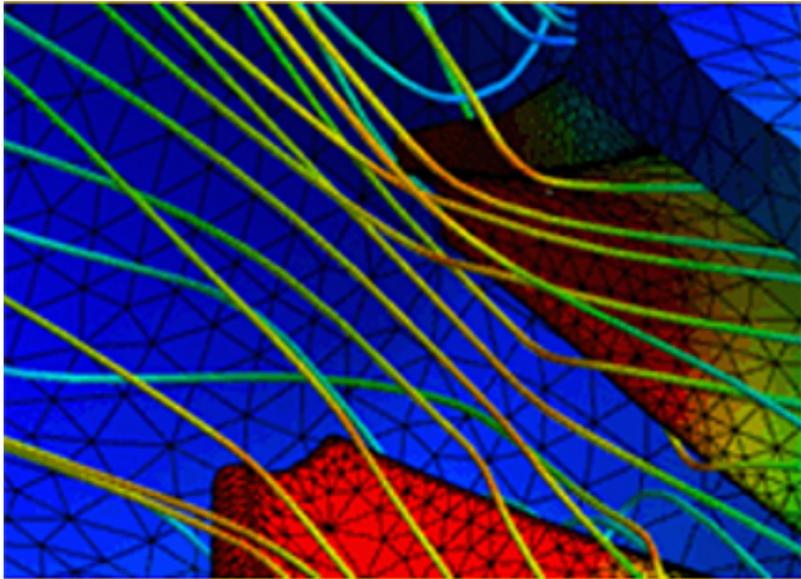


First Commercial GPU-Accelerated Fluid Dynamics Solver Dramatically Speeds Simulation of Large Multiphysics Models

ANSYS



ANSYS users can now leverage NVIDIA graphics processing units (GPUs) to speed up fluid dynamics simulation and quickly handle large, complex simulation models. Available for the first time with ANSYS Fluent 15.0, the jointly developed GPU-accelerated commercial computational fluid dynamics (CFD) solver broadens support for NVIDIA GPUs across the ANSYS simulation portfolio, building upon the previous success with GPU support in ANSYS Mechanical.

ANSYS' technology leadership in HPC scale-up and NVIDIA's best-in-class hardware come together to augment traditional multi-core central processing unit (CPU) parallel computing with GPU accelerator technology. One company taking advantage of this new solver is Parametric Solutions, which specializes in the design, manufacture, test and assembly of gas turbine components and modules.

"By adding NVIDIA GPU accelerators, our engineers cut the time for typical ANSYS Mechanical models in half, doubled the performance of maxed out CPU systems and often saved an entire day's worth of work," said David Cusano, chief technology officer and vice president of Parametric Solutions Inc. "Now, with support for GPU acceleration in ANSYS Fluent 15.0, complex CFD simulations can be accelerated in a similar fashion, especially when paired with new, higher performance NVIDIA Tesla K40 GPU accelerators. Our company is excited about the continued development of GPUs by NVIDIA and GPU acceleration in ANSYS."

"ANSYS has worked with NVIDIA to make sure our joint customers can leverage cutting-edge GPU hardware for fluid dynamics simulation," said Barbara Hutchings, director of strategic partnerships at ANSYS. "ANSYS is investing deeply in GPUs as an emerging and powerful technology, which is why ANSYS has expanded its GPU support with NVIDIA through new high-performance computing (HPC) licensing that takes advantage of both central processing units (CPUs) and GPUs, and new GPU support from ANSYS electromagnetic simulation solution, HFSS Transient. Customers can now apply GPUs to speed up fluid dynamics, structural mechanics, and electromagnetic simulations — expanding the value of ANSYS HPC capabilities."

"Customers get better, higher performance simulations to address their most difficult computational challenges thanks to our close work with ANSYS," said Andrew Cresci, general manager of Manufacturing Industries at NVIDIA. "By adding support for GPU acceleration in ANSYS Fluent, customers can run complex simulations considerably faster, leading to higher quality and more efficient designs for planes, cars, electrical devices and a range of other products."

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