Raising the Bar in Product Development with Simulation Driven Engineering

ANSYS software from ANSYS, Inc. provides the most advanced coupled physics technology, combining structural, thermal, CFD, acoustic and electromagnetic simulation capabilities in a single software product. Applications involve everything from rotating machines (motors and alternators), sensors and actuators, power generators and transformer systems, and micro electro mechanical systems (MEMS).

As the need for analyzing complete assemblies with multiple physics increases, so does the demand for high performance computing (HPC) resources. As pressure grows to get new products to market faster, without additional IT spending, companies are seeking reliable computing solutions to handle increasingly demanding performance requirements. By distributing simulation solvers to dozens or hundreds of computing nodes, run-times are dramatically reduced. When your engineers can see results that formerly took days or a week within an hour or two, the whole design process changes – from one of lengthy delays to one of high productivity associated with a more interactive process.

Platform Computing’s LSF can ensure that your costly IT assets are fully utilized while improving workload throughput and allowing for more simulations, better testing, and shorter development cycles. Using LSF in conjunction with ANSYS software provides engineers with a dramatically improved compute facility while reducing development costs and improving product quality.

Platform Computing’s team of HPC systems engineers have worked with independent software vendors (ISVs) such as ANSYS to ensure customer satisfaction. Platform Computing currently maintains close business relationships with over 20 ISVs and establishes single points of contact to promote understanding and deep code knowledge. Platform also has an established Partner Alliance Network to ensure that all software vendors developing CAE applications, as well as operating system and hardware vendors, receive the attention and continuous support they deserve for rapid deployment at customer sites.

Benefits

- HPC (High Performance Computing) enables larger simulations and improved simulation turnaround time
- Cluster servers can scale up with demand improving capacity and project planning
- Reduced IT cost can be achieved by using commodity based computing solutions
- Centralized computing resources enable collaboration with distributed teams

Who Needs this Solution

Any engineering organization using ANSYS software who requires additional compute power to run more computationally intensive simulations or increase the number of concurrent simulations of any size.

Products in Solution

- LSF HPC for cluster management
- Integration with ANSYS Remote Solve Manager (RSM) through the ANSYS® Workbench® platform
- EnginFrame web portal for remote batch job management

Optimize Usage of ANSYS® Software with Platform LSF CAE Edition

![Optimize Usage of ANSYS® Software with Platform LSF CAE Edition](image)
The Integrated Solution

ANSYS, Inc. remains uniquely committed to core engineering simulation technologies, and their solutions are unmatched in terms of the functionality and power necessary to optimize components, subsystems and systems. Organizations are deploying ANSYS solutions at various stages of product development to leverage digital design performance information and make timely decisions.

The integration with Platform LSF CAE edition accelerates ANSYS engineering simulations while providing users with transparent access to a heterogeneous distributed computing resource environment. With a deeper managed compute capacity users are able to run more complex and accurate simulations than was previously possible. Users will also have the ability to run more exhaustive sets of test cases in a finite time period. Platform LSF CAE Edition allows your engineering team to deliver faster, more accurate designs by leveraging all existing resources.

Platform LSF and ANSYS customers have an easy to use web-based, user interface that simplifies job submission to your HPC environment. Geographically distributed teams are able to collaborate via an engineering portal and security is improved by reducing the number of users with direct access to the cluster.

Faced with competitive challenges, customer demands and financial pressures, businesses need to find new ways to engineer more reliable, innovative products while minimizing costs. The combination of ANSYS software and Platform’s LSF enables businesses to improve product quality and reduce the time to market with lower costs for new products. This solution will also maximize the IT infrastructure asset utilization resulting in higher ROI, lower infrastructure costs and opportunities for capital cost avoidance.

About ANSYS

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. For more information visit www.ansys.com.

Platform LSF CAE Edition

Platform LSF CAE Edition is the first, user-friendly, grid solution created specifically for CAE simulation departments in industrial manufacturing organizations. It is based on Platform LSF, the industry leading workload management software used by Fortune 100 automotive and aerospace manufacturers globally. Platform LSF CAE Edition includes an easy to use web-based, user interface that simplifies job submission to your HPC environment. In addition, it is integrated with the most widely used CAE software solutions for crash, durability and fluid dynamics.

About Platform Computing

Platform Computing is the leading systems infrastructure software company that accelerates applications and delivers IT agility for increased business performance and reduced cost. Founded in 1992 Platform is a pioneer in HPC, Cluster and Grid Computing technologies. Platform has over 2000 global customers and strategic relationships with Dell™, HP, IBM®, Intel®, Microsoft®, Red Hat® and SAS®. For more information please visit www.platform.com.