

Platform™

LS-DYNA Clusters Made Simple With Platform OCS and Platform LSF CAE Edition

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
- Platform Open Cluster Stack (OCS) is the first commercial software system used to create certified Intel® Cluster Ready systems that enable the consistent delivery of scale-out clusters.

Who Needs this Solution

Any engineering organization using LS-DYNA® software who require additional compute power to run more computationally intensive simulations or increase the number of concurrent simulations of any size.

Products in Solution

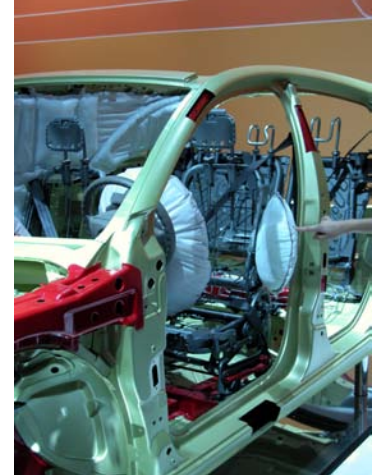
- Platform LSF HPC for workload management
- Integration LS-DYNA® software platform
- EnginFrame web portal for remote job submission and simulation management
- Platform Open Cluster Stack (OCS) cluster management solution (optional)



Raising the Bar in Product Development with Simulation Driven Engineering

LS-DYNA® from Livermore Software Technology Corporation (LSTC) is a general-purpose transient dynamic finite element program capable of simulating complex real world problems. It is the most widely used software in the automotive, aerospace and defense industries for crash and impact studies. LS-DYNA® accurately predicts a car's behavior in a collision and the effects of the collision upon the car's occupants.

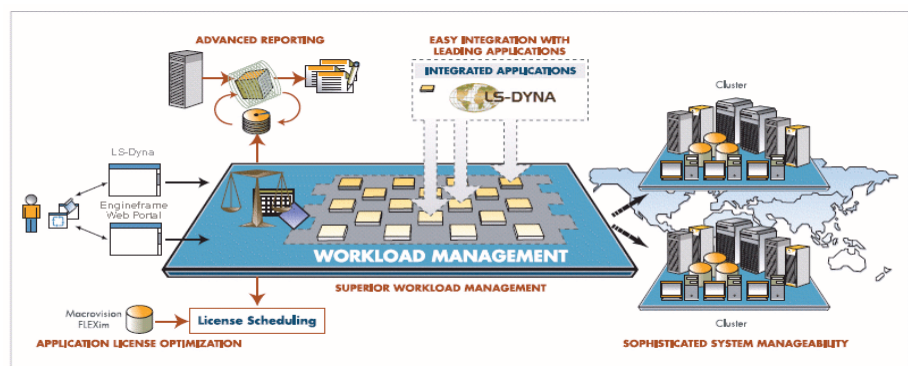
The ability for vehicle manufacturers to test car designs without having to tool or experimentally use a prototype saves time and expense but as the testing demand increases so does the need for high performance computing (HPC) resources. To meet this challenge, IT professionals have turned to cost effective cluster-servers as a reliable computing solution 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 with an overnight turnaround, the whole design process changes – from one of lengthy delays to one of high productivity associated with a more interactive process.

Platform 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 Platform LSF in conjunction with LS-DYNA® 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 has worked with independent software vendors (ISVs) such as LSTC 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.



About LSTC

Livermore Software Technology Corporation (LSTC) founded in 1987 is headquartered in Livermore, California and develops LS-DYNA® and a suite of related and supporting engineering software products. A team of engineers, mathematicians, and computer scientists are engaged in the development of LS-DYNA®, LS-PrePost®, and LS-OPT® for use in various industries, including Automobile Design, Aerospace, Manufacturing, and Bioengineering. LS-DYNA development is focused on one code methodology that includes Implicit, Explicit, SMP and MPP solvers. It is optimized on all platforms including clusters running Unix, Linux, and Windows operating systems.

About Platform Technology

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 environment. In addition, it is integrated with the most widely used CAE software solutions for crash, durability and fluid dynamics.

Platform Open Cluster Stack (OCS) is a pre-integrated, vendor certified, software stack that enables the consistent delivery of scale-out application clusters. Platform OCS is the first commercial software system used to create certified Intel® Cluster Ready systems enabling a new class of users by simplifying Linux® cluster application, deployment and management. Backed by available, global 24x7 enterprise support, Platform OCS is a modular and hybrid stack that transparently integrates open source and commercial software into a single consistent cluster operating environment.

The Integrated Solution

The integration with Platform LSF CAE Edition and Platform OCS accelerates LS-DYNA® 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 and Platform OCS allows your engineering team to deliver faster, more accurate designs by leveraging all existing resources. By allowing engineers and designers to focus on business-critical process design and execution rather than IT and resource availability, your product quality increases dramatically within the bounds of time and budget restrictions.

Platform and LSTC 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 LS-DYNA® software and Platform's workload management software 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 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®, along with the industry's broadest support for third-party applications.

For more information please visit www.platform.com.

World Headquarters

Platform Computing Inc.
3760 14th Avenue
Markham, Ontario
L3R 3T7 Canada
Tel: 905 948 8448
Fax: 905 948 9975
Toll-free tel: 877 528 3676
info@platform.com

United States

Boston: 781 685 4966
Detroit: 248 359 7820
Reston: 703 251 4850
Newport Beach: 949 798 6125
New York: 646 290 5070
San Jose: 408 392 4900

Europe

London: +44 20 7956 2098
Basingstoke: +44 (0) 1256 883756
Paris: +33 (0) 1 41 10 09 20
Munich: +49 2102 61039-0
info-europe@platform.com

Asia-Pacific

Beijing: +86 10 82276000
Singapore: +65 6232 2363
Tokyo: +813 5326-3105

For more information, visit www.platform.com/contactus



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