Powertrain model courtesy of Dana Corp.

Accelerate Simulation Productivity with Abaqus FEA on Personal Clusters

Get simulation results in a fraction of the time

In today's competitive world, every second counts. By running Abaqus FEA on affordable compute clusters, you can achieve significant time savings. Speed-up can be realized on all types of finite element analysis (FEA) models.

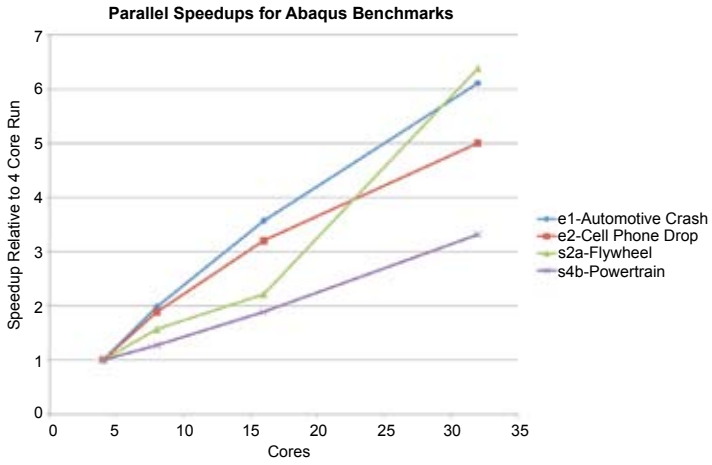
These benefits are due to SIMULIA's efforts to optimize the parallel performance of its Abaqus FEA software running on powerful Intel® Xeon® processor-based personal clusters. The result is a comprehensive modeling and analysis solution that enables design engineering and research groups of all sizes to increase simulation productivity.

Easy deployment on a powerful personal cluster

Get all the power of a high-performance Linux or Windows computing cluster in a new generation cost-effective system that's surprisingly simple to use. With Intel® Xeon processors, these systems make fast work of multiple simulations.

Reduce system complexity with Intel® Cluster Ready

The Intel® Cluster Ready program can dramatically reduce purchasing complexity, accelerate your deployment timeline and simplify management throughout the life of your HPC cluster. Intel works with system and software vendors to provide you with certified Linux-based systems and registered applications that are thoroughly tested to ensure interoperability. You can be confident that your cluster will work with a great out-of-box experience.



Benchmark tests show dramatic performance increases running Abaqus FEA on Intel Xeon processor-based clusters.*

*Benchmark details: Times shown are for standard Abaqus benchmarks run on a cluster consisting of four dual-processor Quad-Core Intel® Xeon® processor 5472 nodes with 16GB of RAM per node and InfiniBand interconnect.

SIMULIA

Appro Ready-to-Go-Clusters

The Ready-to-Go Cluster is an Appro recommended entry-level solution for SIMULIA. This is a fully integrated solution based on the Appro GreenBlade™ System, building block blade package that is easy to scale, deploy and manage. The Appro GreenBlade system delivers performance, energy and cooling efficiency with a variety of blade server configurations that are also complemented with storage blade and GPU blade expansion options. Powered by the latest Intel® Xeon® Processors with 4 to 6 cores and certified by Intel® Cluster Ready (ICR) Program, the Appro GreenBlade boosts performance optimization by increasing system bandwidth and reducing I/O latency while matching memory and compute intensive workloads and power requirements.

To learn more go to www.appro.com/product/ready_clusters.asp or check www.appro.com/product/gB222X_overview.asp

Cray CX1

The Cray CX1™ supercomputer is the "right size" in performance, functionality, and cost for individuals and departmental workgroups who want to harness HPC without the complexity of traditional clusters. Equipped with powerful Intel Xeon processors and integrated with Red Hat Enterprise Linux and Cray Cluster Manager powered by Platform and with Windows HPC Server 2008, the Cray CX1 delivers the power of a high-performance cluster with the ease-of-use and seamless integration of a workstation. The Cray CX1 is Intel® Cluster Ready (ICR) certified.

To learn more, visit: www.cray.com/products/CX1

SGI Octane III

The SGI® Octane™ III combines the immense power and performance capabilities of a high-performance cluster with the portability and usability of a workstation to enable a new era of personal innovation for Abaqus users. Octane III supports the latest Intel® processors and is Intel® Cluster Ready to capitalize on a wide selection of performance, storage, integrated networking, and graphics and compute GPU options. Octane III enjoys the same cost saving power efficiencies inherent in all SGI Eco-Logical™ compute designs.

To learn more, visit: www.sgi.com/products/workgroup/octaneIII/

Hyperform HPCi for SIMULIA by Silicon Mechanics

Silicon Mechanics empowers its customers with a unique set of web-based interactive tools. The industry's first online cluster configurator enables customization of clusters to create a best-fit solution for Abaqus applications. Expert sales engineers are readily available for consultation, and are able to respond with solutions precisely suited to specific requests. The Hyperform HPCi for SIMULIA cluster offers a low acquisition price, increased thermal efficiency, and outstanding compute density. Fully configured, the Hyperform HPCi for SIMULIA has a starting price around $26,000. Clusterware support is provided by ROCKS+. Installation and training are also available from Silicon Mechanics.

To learn more, visit: www.siliconmechanics.com/simulia

Personal Cluster Features

Application: Abaqus FEA
OS: Windows or Linux
Hardware: Up to 10 node HPC clusters Intel®-based 1U or rack mountable server systems, each with:

- Two Intel® Xeon processors
- InfiniBand and Gigabit Ethernet
- 115V/240V power distribution

Featured Cluster Systems

- Appro Ready-to-Go Cluster
- Cray CX1™ Supercomputer
- SGI Octane III
- Silicon Mechanics Hyperform HPCi Cluster

Get started today

Visit www.simulationclusters.com, contact your local SIMULIA sales representative, or call David Barnes at 765-588-3049 to learn how you can virtually test drive your data in a scalable, affordable cluster environment today.

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