QLOGIC®
The Ultimate in Performance

CD-adapco

CD-adapco STAR-CD

CD-adapco and QLogic High Performance Computing

Overview

Today's challenging economic climate and globally competitive markets make lowering manufacturing costs more critical than ever. Whether you're an aerospace engineer designing a new wing for the latest commercial jet or an automotive engineer simulating multi-car crashes for the next generation of SUVs, the ability to run simulations faster will increase productivity, speed time-to-market, and improve your company's bottom line.

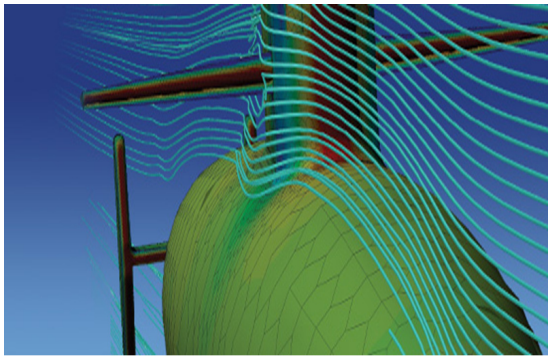
Companies in aerospace, automotive, consumer electronics, and high-tech machinery can realize significant benefits utilizing QLogic high performance computing solutions. QLogic's products enable companies to perform process simulation, modeling, and optimization at a highly increased rate so that customers can get products to market faster at a much lower cost of prototyping and final production.

CD-adapco

CD-adapco is a leading global Computer-Aided Engineering (CAE) enterprise providing a full spectrum of computationally-based engineering solutions. CD-adapco core products are the technology-leading Computational Fluid Dynamics (CFD) packages, STAR-CD and STAR-CCM+. The scope of CD-adapco's activities extends beyond CFD software development to encompass a wide range of CAE engineering services in CFD and FEA, and the transfer of technology via expert systems.

STAR-CD: From Fluid Dynamics to Continuum Mechanics

With a 20-year heritage of providing solutions to the most complex problems that fluid mechanics has to offer, STAR-CD has a long-established reputation for being the most versatile platform for industrial CFD simulation. STAR-CD is more than just a CFD code. The latest release, STAR-CD V4, introduces the capability to perform structural analysis calculations using a



Solution Highlights

Complete Simulations Faster

When running optimization programs that refine a design, reducing the time-to-information is critical for any company in these competitive industries. Interconnecting your cluster computing network using QLogic solutions can reduce this time interval — the end result is faster time-to-market and higher product quality levels.

Improve Product Designs

QLogic solutions enable companies to build larger node size clusters, run larger data sets, and expand simulation complexities in computer-aided design.

Reduce or Eliminate Costs

By better leveraging cluster compute and storage resources, industrial engineering customers utilizing QLogic's high performance switching and virtual cluster fabric solutions can reduce the costs and complexities of deploying and operating design and simulation data centers.

methodology based upon its industry-leading CFD solver technology, the first time that a comprehensive solution for flow, thermal, and stress simulation has been available in a single general-purpose commercial finite-volume code.

In bridging the gap between fluid dynamics and structural-mechanics, STAR-CD V4 brings the routine solution of a whole new class of engineering problems within the reach of regular industrial users.

STAR-CD V4 is now fully polyhedra-enabled; bringing state-of-the-art solver technology to STAR-CD users, without compromising the advanced modeling and complex physics capabilities for which STAR-CD is the undisputed market leader. By using the latest polyhedra-solver technology, STAR-CD V4 delivers significant benefits in speed, robustness and usability.

QLogic – High Performance Cluster Technology

QLogic offers a comprehensive end-to-end product portfolio that includes Multi-Protocol Fabric Directors, Edge Fabric Switches, Host Channel Adapters (HCAs), and a complete software suite to install, operate, and maintain your high performance interconnect fabric. QLogic offers the most comprehensive and flexible interconnect fabric solutions on the market. Application requirements from 12 to 864 InfiniBand ports can be supported in a single chassis. Multi-chassis fabrics that support thousands of host nodes can be constructed to meet the most demanding compute cluster requirements. This offering, combined with the industry's only Fabric Management tools that enable an administrator to install and boot a fabric in minutes, helps to satisfy the growing demand for high-performance computational clusters and grids.

High Capacity Multi-Protocol Directors

- 51.8Tb/s throughput in a single chassis
- InfiniBand DDR supported across full switching portfolio
- Support for 20-to-40Gb/s node-to-node
- Up to 60Gb/s switch-to-switch bandpass
- Single wire support for InfiniBand, Ethernet and Fibre Channel

Comprehensive Fabric Management

- Centralized configuration and fabric initialization
- Accelerated fabric deployment and verification
- Fabric health and performance monitoring
- Fabric-wide diagnostics and maintenance
- Centralized management of virtual fabric services

Multi-Protocol Gateways

- Virtual I/O Controller (VIC) functionality
- 10Gb Ethernet and 4Gb Fibre Channel
- Scale I/O and servers independently
- Pool and share I/O between servers

Widest Range of Host InfiniBand Adapters

- Widest choice of adapters
- SDR and DDR capable
- PCI-X and PCIe

Compatible Plus Software Stacks

- OpenFabrics / OFED
- Optional value-added capabilities
- Accelerated standard MPI stacks

QLogic InfiniBand Benefits

1. Significantly improves application performance for faster time-to-solution
2. Provides fabric and application scaling to 1000s of CPUs
3. Simplifies data center design and reduce operating costs
4. Eliminates the need for separate physical server connections to storage and network resources
5. Scale servers and I/O independently pool and share I/O between servers

To Learn More

QLogic: www.QLogic.com or CD-adapco: www.CD-adapco.com

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Corporate Headquarters QLogic Corporation 26650 Aliso Viejo Parkway Aliso Viejo, CA 92656 949.389.6000 www.qlogic.com

Europe Headquarters QLogic (UK) LTD. Quatro House Lyon Way, Frimley Camberley Surrey, GU16 7ER UK +44 (0) 1276 804 670