



ALLIANCE BRIEF

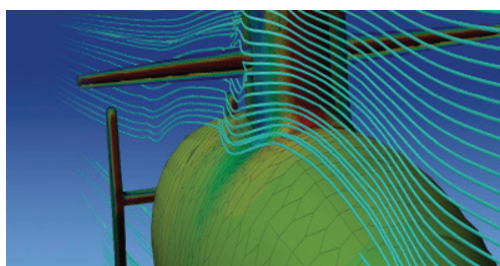
CD-adapco STAR-CD

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 faster simulations 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 using 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 speed products to market at a much lower cost of prototyping and final production.



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.
- **Reduce or Eliminate Costs.** By better leveraging cluster compute and storage resources, industrial engineering customers using 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.
- **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.

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 using 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 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. It brings 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, 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

- 51.8Tbps throughput in a single chassis
- InfiniBand DDR supported across full switching portfolio
- Support for 20Gbps to 40Gbps node-to-node
- Up to 60Gbps switch-to-switch bandpass

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

Compatible Plus Software Stacks

- OpenFabrics and OFED™
- Optional value-added capabilities
- Accelerated standard message passing interface (MPI) stacks

QLogic InfiniBand Benefits

1. Significantly improves application performance for faster time-to-solution
2. Provides fabric and application scaling to thousands of CPUs
3. Simplifies data center design and reduces operating costs

To Learn More

QLogic www.qlogic.com

CD-adapco www.CD-adapco.com



Corporate Headquarters QLogic Corporation 26650 Aliso Viejo Parkway Aliso Viejo, CA 92656 949-389-6000 www.qlogic.com

International Offices UK | Ireland | Germany | France | India | Japan | China | Hong Kong | Singapore | Taiwan

© 2009, 2011 QLogic Corporation. Specifications are subject to change without notice. All rights reserved worldwide. QLogic and the QLogic logo are registered trademarks of QLogic Corporation. InfiniBand is a registered trademark and service mark of the InfiniBand Trade Association. OpenFabrics Enterprise Distribution (OFED) is a trademark of OpenFabrics, Inc. PCI-X and PCIe are trademarks or registered trademarks of PCI-SIG Corporation. All other brand and product names are trademarks or registered trademarks of their respective owners. Information supplied by QLogic Corporation is believed to be accurate and reliable. QLogic Corporation assumes no responsibility for any errors in this brochure. QLogic Corporation reserves the right, without notice, to make changes in product design or specifications.