



Electronic Design Automation

Mentor Graphics Running Solaris™ 10 OS

Delivers Innovative Solutions



Mentor Graphics Corporation is a leader in software and hardware design solutions that enable companies to develop better electronic products faster and more cost-effectively. Offering innovative products, service, and support, electronic design automation (EDA) solutions from Mentor Graphics help engineers overcome the design challenges faced in the increasingly complex worlds of system, board, and chip design.

Mentor Graphics and Sun

Great things happen when industry leaders work together closely. Mentor Graphics and Sun have done just that for more than 15 years, continuously nurturing and improving a multifaceted relationship that ultimately results in enhanced products for both companies' customers. In fact, the two companies trust each other's solutions to run their business.

Mentor Graphics trusts the Solaris OS running on Sun SPARC™ systems, as well as systems based on AMD and Intel CPU architectures (x64) for product development. Similarly, Sun uses Mentor Graphics Calibre physical verification and Design for Test solutions to design integrated circuits and printed circuit boards (PCBs) for several of its product lines. This tight-knit relationship improves quality and streamlines feedback loops that greatly enhance the offerings of both companies.

Stability and Reliability Make the Difference

Of the many values of Sun for Mentor, perhaps none is more critical than the proven stability and reliability of the Solaris OS. Over the years, Sun has continued to innovate and improve the performance of the Solaris OS, while providing crucial lifecycle compatibility. The fact that applications run unmodified from release to release on the Solaris OS is very important to Mentor Graphics from a quality point of view. It also means you can upgrade to the latest release of the OS, without worrying about application stability.

With more applications available than for any other open operating system, the Solaris OS can be the one OS to span your entire enterprise: the Web tier, the data warehouse, and the most demanding technical compute applications. With the stable, reliable Solaris OS, you can create designs and run tests with confidence.

Solaris OS on a Variety of Systems

Mentor Graphics supports the Solaris OS on systems based on the AMD and Intel CPU architectures for many of their solutions, so you can take better advantage of the price/performance of these platforms. The Solaris 10 OS adds better reliability and stability to your compute infrastructure, providing performance you value in a better overall package. The stability of the Solaris 10 OS has proven valuable to Mentor Graphics engineers who experience fewer reboots and less overall downtime.

Creating Better Products

Mentor Graphics actively participates in Sun's early access programs for hardware, OS, and developer tools, and provides input to product groups such as Sun Grid Engine. The ability to test on beta versions of Sun products and have access to Sun engineering teams helps Mentor Graphics design software that takes advantage of Sun innovations in hardware and software. In particular, Mentor Graphics finds participation in Sun's software tools beta programs very helpful. The company is keenly aware that better tools create better products, so

Highlights

Company

Mentor Graphics Corporation
www.mentor.com

Partner Overview

A technology leader in electronic design automation (EDA), providing software and hardware design solutions that enable companies to develop better electronic products faster and more cost-effectively.

Key Industry Needs

By offering innovative products and solutions, the company helps engineers overcome the design challenges faced in the increasingly complex worlds of board and chip design.

Solution

The Solaris Operating System (OS) and Mentor Graphics applications running on your choice of systems deliver results for your technical computing needs, so you can create tomorrow's electronic products.

the opportunity to help drive quality in Sun developer tools is advantageous for both companies.

The beta programs also enable Mentor Graphics to verify compatibility and performance on new platforms, so their customers can confidently upgrade to new versions of the OS and hardware.

Faster Testing Speeds Time to Market

Accelerating time to market and improving product quality are key goals for Mentor Graphics. Before a new product or version can be released, it must undergo thousands of tests, and the faster these tests are completed, the faster the product can reach the marketplace. Faced with shrinking budgets and increasing demand for compute power, Mentor Graphics decided to try the open source version of Sun Grid Engine, and then migrated to a licensed and supported version.

Sun Grid Engine 6 is deployed at Mentor Graphics worldwide on Solaris, Linux, Windows, and other operating systems. As more capacity is needed to run tests, the Sun Grid Engine finds the necessary resources within the grid. The grid infrastructure at Mentor Graphics performs more than 15 million jobs per month, resulting in higher quality products and on-time product releases. Sun Grid Engine also significantly improves CPU utilization over manual job submission, allowing Mentor Graphics to work within constrained hardware budgets, as well as limit growth in power, cooling, and space.

Mentor Graphics is so convinced of the benefit of grid computing that Sun Grid Engine has been adopted as a key computing

methodology throughout Mentor's world-wide development centers. And the company is making their products grid friendly so you can realize the same benefits.

Business Benefits

With a choice of OS and the benefit of the Sun Grid Engine resource manager, your organization can:

- Develop higher quality products
- Meet scheduled release dates with all identified quality improvements incorporated
- Enjoy better management of existing heterogeneous computing resources; including Solaris, Linux, AIX, HP-UX, and Microsoft Windows platforms
- Achieve greater system utilization, to reduce annual budget increases for new systems
- Reduce physical infrastructure components, such as power, cooling, and space requirements

Mentor Graphics Solutions at a Glance

0-In

0-In® products offer standards-based support for the most advanced verification requirements with integrated technologies, which include the 0-In assertion-based verification tools and methodologies to enable comprehensive verification throughout the entire design.

Calibre (LVS, DRC, OPC)

Calibre® LVS delivers production-proven device extraction for physical verification, including physical device parameters as seen in the actual layout. Calibre nmDRC, with the new Hyperscaling processing architecture, produces best-in-class DRC run times with scalability to 100s of CPUs. Calibre nmOPC is a third-generation optical proximity correction (OPC) tool that expands the Calibre arsenal of resolution enhancement technology (RET) products for sub-65 nanometer (nm) process technologies.

ModelSim SE

ModelSim® SE (Special Edition) is a UNIX®, Linux, and Windows-based simulation and debug environment, combining high performance with a powerful and intuitive GUI.

DFT TestKompres

The TestKompres® software tool is an enhanced version of the groundbreaking tool that introduced scan test pattern compression to the market. The TestKompres product offers significant improvements in the most important aspects of automatic test program generation (ATPG)—productivity, performance, and test quality.

An Infrastructure for Success

More efficient utilization of computing resources—thanks, in part, to Sun's Solaris OS, SPARC and x64 hardware, and the Sun Grid Engine environment—enables Mentor Graphics to develop products faster and run more regressions tests. This helped Mentor to create higher quality products than ever before and improve on-time product releases.

You, too, can realize these benefits in your engineering compute environment; world-class EDA tools from Mentor Graphics running in a high-performance, stable, and efficient infrastructure, leveraging Sun innovation to help drive your bottom line success.

Learn More

For more information on Mentor Graphics and the Solaris Operating System, please see www.sun.com/mentor



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