

*A publication
for the real-time
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ConcurrentSolutions

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TERASOFT TO RESELL CONCURRENT'S REAL-TIME REDHAWK™ LINUX® PRODUCTS IN TAIWAN

Concurrent is proud to announce that TeraSoft, Inc., a leading professional engineering solutions provider based in Taipei, Taiwan, will now resell and support real-time solutions featuring the RedHawk Linux operating system in Taiwan.



"Our alliance with TeraSoft brings a powerful combination of real-time products and technical expertise to the local market," notes Ken Jackson, Vice President, Concurrent Real-Time. "Through TeraSoft, customers will benefit from direct sales and first-class technical support in their own language. This will further expand the use of our RedHawk Linux and SIMulation Workbench™ solutions in the Taiwanese market."

"Concurrent Real Time products and services are a perfect complement to our diverse portfolio of innovative technologies," said Kinney Shen, CEO, TeraSoft Inc. "These products address a broad range of application requirements. SIMulation workbench will especially help with our deployment of custom real-time modeling applications through its seamless integration with MATLAB/Simulink®."

**For more information, please
visit www.terasoft.com.tw**

Concurrent iHawk™ and ImaGen™ Platforms Play Integral Role in New Daimler Driving Simulator

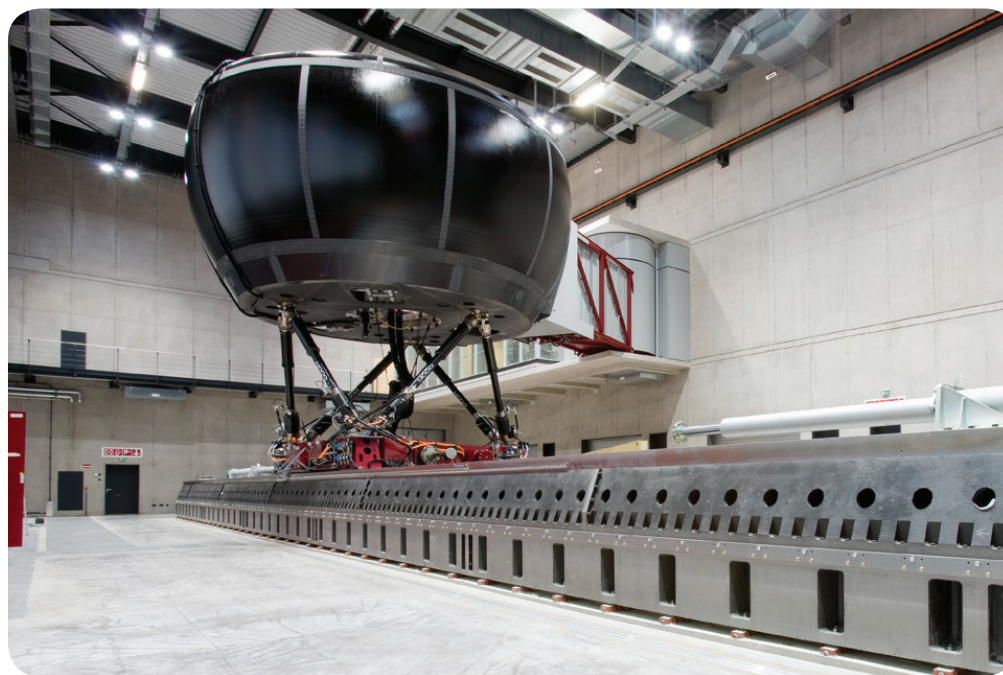
Mercedes-Benz recently embarked on a new era of vehicle research and development with the opening of its new Daimler AG driving simulator in Sindelfingen, Germany.

With its 360° screen, fast electric power system and a twelve-meter long rail for transverse movements, the Daimler simulator is one of the most advanced dynamic man-in-the-loop simulators in the automobile industry.

Daimler selected Concurrent's iHawk real-time Linux-based computer platform as the real-time host for the new simulator and Concurrent ImaGen visual servers for the image generator. This powerful combination provides a complete training system platform

delivering the highest levels of computer-generated image quality and fidelity. "With this new driving simulator, Daimler is able to shorten development times, significantly increase the maturity of products, and ultimately make a major contribution to the future competitiveness of their brand. Concurrent's field-proven hard real-time performance and expertise along with their guaranteed response times and high fidelity IG are an ideal solution for this state-of-the-art simulation project.

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Daimler AG driving simulator in Sindelfingen



For more information, please visit
<http://www.daimler.com>

New Daimler Driving Simulator

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How the Daimler Simulator Works

The simulator uses a 360° out-the-window projection rendered by eight Concurrent ImaGen visual server channels.

Able to test a variety of car models, the dome is large enough to accommodate a complete car that can be installed through a large gate at the rear of the dome. The dome itself sits on a special hexapod mounted on a twelve meter long rail system. This enables transverse movements to be simulated to reproduce highly dynamic driving conditions.

The vehicle models are linked to the computerized control system of the driving simulator by data lines. When the test driver turns the steering wheel, accelerates or operates the brakes, these reactions are registered by the computer control system and have the same effects as in real driving situations.

At the heart of the simulator's iHawk real-time host platform is Concurrent's RedHawk Linux real-time operating system. Fully compatible with Red Hat® Enterprise Linux, RedHawk is based upon a multithreaded, fully preemptible Linux kernel with low-latency enhancements. RedHawk's true symmetric multiprocessing support includes load-balancing and CPU shielding to maximize determinism and real-time performance in mission-critical solutions. A user-level application can be guaranteed to respond to an external event in less than 15 microseconds on a shielded processor.

Behind the scenes, Concurrent's iHawk host system runs the models in real time and provides precise feedback to

the driver. The ImaGens provide the visual cues needed for the virtual reality solution being delivered.

"The synergy of these products provides an ideal solution for the demanding requirements of the Daimler driving simulator, and we're proud to leverage our real-time core expertise to address this need," notes Birgit Grossmann, European Managing Director, Concurrent Real-Time.

Continued Technological and Innovative Leadership

The new driving simulator enables Daimler to very realistically reproduce highly dynamic driving maneuvers such as lane changes, and to intensively research the behavior of the driver and vehicle in road traffic. The simulator is not able or intended to completely replace real test drives, but it does make it possible to test the systems and components of future Mercedes models in all development phases. The driving simulator is also used to conduct tests that enable drivers to approach physical limits with no danger, and provide Mercedes engineers with information regarding the acceptance and operation of new safety systems.

Daimler developed its first driving simulator in 1985. Since then, the company has been gaining widespread notoriety for adopting cutting-edge

technologies to revolutionize the automotive industry. The new Daimler AG driving simulator was the first milestone in the expansion of the Mercedes-Benz Technology Center. A total of €160 million is being invested in infrastructure, the driving simulator and climate wind tunnels over a five-year period.

Nowhere in the automobile industry are research, development, design, planning and production so directly intermeshed than at the Mercedes-Benz location in Sindelfingen. As the use of simulation continues to grow in the automotive industry, Concurrent stands ready to support Daimler and its commitment to technological and innovative leadership. 🚗

