

PRESS RELEASE 14/2009

RTT achieves outstanding rendering performance with Mellanox Technologies InfiniBand

Rapid Data Stream Provides Real-time Visualisation with Wings

Munich, November 30, 2009 – High-end visualisation in real time places great demands on the interaction between software and hardware. The massive volumes of data involved can only be displayed fluidly and in a convincing manner if all the components are perfectly attuned to one another. In this respect, the quality of the network connection is of central importance for cluster installations. In a series of trials carried out at its development laboratory in Munich, Realtime Technology (RTT) AG tested the rendering process of its industry-leading visualisation software RTT DeltaGen with Mellanox world-leading InfiniBand end-to-end connectivity. The results were impressive to say the least.

In order to test the performance of the data transfer with Mellanox solutions, RTT Scale (the scalability module of RTT DeltaGen) was used to integrate a cluster of five computers (with two high-performance graphics processors each) via Mellanox InfiniBand. Sophisticated, real-time visualisations were then rendered, a process which involved an enormous volume of data due to the physically correct display of textures, refractions, reflections and shadow effects required. The fact that OpenGL, Global Illumination and ray tracing were involved here meant that all three of the software's rendering processes were utilised.

Experts from RTT examined the quality of the real-time display. They paid particular attention to continuous colour gradients, smooth lighting effects and seamless transitions between animations. – And the result? The network connection using Mellanox InfiniBand passed with flying colours. It interacted extremely well with RTT Scale and the hardware constellation used in the test setup. With transfer rates of up to 8 gigabits per second, the system performed superbly with all three rendering methods and produced excellent real-time visualisation results.

Christoph Karrasch, co-founder and board member of RTT, was more than satisfied with the outcome: "We were impressed by the performance of the system we tested. On the basis of our test results we would have no hesitation in recommending the InfiniBand connectivity from Mellanox for high-end real-time visualisation with RTT DeltaGen." In addition to the exceptionally high bandwidth and the short latency periods, RTT's testers put the good performance of the InfiniBand network down to the efficient load balancing. Thanks to the optimal distribution of data packages, it was possible to get very close to achieving perfect loading among the graphics processors.

Gilad Shainer, Director of HPC and Technical Marketing at Mellanox Technologies, is delighted about the recommendation from RTT. "The results of RTT's trials are further confirmation of the outstanding functionality of our highest-bandwidth, lowest latency InfiniBand end-to-end solutions. The real-time visualisation allowed us to demonstrate our capabilities to a sector that relies on being able to transfer and distribute large volumes of data rapidly and reliably."

<http://www.rtt.ag>

<http://www.mellanox.com>

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About Mellanox Technologies

Mellanox Technologies is a leading supplier of end-to-end connectivity solutions for servers and storage that optimise data centre performance. Mellanox products deliver market-leading bandwidth, performance, scalability, power conservation and cost-effectiveness while converging multiple legacy network technologies into one future-proof solution. For the best in performance and scalability, Mellanox is the choice for Fortune 500 data centres and the world's most powerful supercomputers. Founded in 1999, Mellanox Technologies is headquartered in Sunnyvale, California and Yokneam, Israel. For more information, visit Mellanox at www.mellanox.com.

About RTT AG

RTT provides 3D real-time visualisation technology and services for innovative workflows in the automotive, aerospace and consumer goods industries as well as in the fields of interior design and architecture. It supports customers in coming up with new ways of how to design and to market their products.

Among RTT's customers, one can find Adidas, Agusta, Airbus, Applus Airon Technic, Audi, BASF, Bertrandt, BMW, Bosch, Carbon Motors Corporation, Changchun Railway, China Faw Group Corporation, Chrysler, Dai Nippon Printing (DNP), Daimler, Demag-ergo-technik, Dodge, EADS, EDAG, Faurecia, Fiat, Ferrari, Ford, General Motors, Hakuhodo, Harley-Davidson, Hawker Beechcraft, Holden, Honda, ICON Aircraft, Inovo Design, Italdesign Giugiaro, Iveco, Jialing Motor, Jeep, Johnson Controls, Lamborghini, Lexus, Magna Steyr, Maserati, Maybach, Mazda, Mercedes, Miele, Mitsubishi Electric, Opel, PATAC, Porsche, PSA, Rolls-Royce, Saab, Sagem, Samsung, Scania, Siemens VDO, Schüco, Serco, Skoda, Sony Ericsson, Steelcase, Suzuki, TERREX, Tesco, Thyssen Krupp, Toppan Printing, Toyota, UCHIDA YOKO, Vauxhall, Volkswagen and Volvo.

The supplier of 3D real-time visualisation solutions looks back on a remarkable development with average annual growth rates of 50 per cent over the past few years. RTT currently employs about 350 people at 14 locations. The company is based in Munich. Further offices are located in Los Angeles, Detroit, Seoul, Tokyo, Shanghai, Paris, Brussels, Milan, Valencia, Melbourne, Singapore, Stuttgart and Hamburg.

RTT is a public company traded on Open-Market Frankfurt, Xetra, Freiverkehr Stuttgart and Freiverkehr Berlin-Bremen: R1T, ISIN: DE0007012205. For further information, please visit www.rtt.ag

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