

PRESS RELEASE 16/2008

Leading high-end visualisation software RTT DeltaGen 8.5: powerful new features allow an unprecedented combination of visual quality and performance

The Beginning of a New Era RTT DeltaGen 8.5 Revolutionises Graphics Computing

Munich, December 12, 2008 – A unique software architecture in RTT DeltaGen opens the door to possibilities previously unheard of: The practice of “one screen – one PC” no longer applies. The reason for this is the expandability module RTT Scale, a new core element in the RTT DeltaGen software suite. This module enables not just more fluidity and interactivity during the display of highly complex scenes, but it means that the user is no longer faced with the decision of how best to compromise between visual quality and computing power. This innovative technology also permits an enormous boost in the display speed even with particularly challenging images that make use of real-time ray tracing and global illumination. Further innovations in RTT DeltaGen 8.5 include the conversion tool RTT DirectCatiKinematics, the RTT Human module, and tone mapping (contrast balancing). The new version of the software will be released soon.

RTT Scale: intelligent and incredibly fast rendering

With its completely new type of architecture, RTT DeltaGen 8.5, together with its integrated scalability module RTT Scale, offers product designers and developers hitherto unimaginable application scenarios for high-end visualisation. RTT Scale is the in-built turbo boost that ensures a faster and more interactive rendering process. Even the largest amounts of data can quickly be visualised without having to compromise quality. The processors in state-of-the-art high-end graphics cards (GPU) are employed to process such large quantities of data. If several graphics cards are used in conjunction with one or more networked computers (in a so-called cluster) then complicated visualisation processes can be distributed across several graphics processors working in parallel by means of intelligent “load balancing”. Rendering performance is thus increased or large powerwall installations can be set up, which can be controlled from one or several PC clusters. Computers can therefore be operated in high-performance single station, cluster installation or complex powerwall setups. This creates many new possible areas of application for users: The steering of a screen from only one computer is thereby finally consigned to the history books.

Global Illumination: fast and realistic light and shadow processing

The realistic and physically accurate simulation of changes to the light-reflecting properties of objects (ray tracing) is one of the toughest challenges in high-end photorealistic professional visualisation. Depicting such effects also presents a challenge for processors, stretching them to their limits. Global illumination of scenes and the visualisation of optical effects, such as light reflections, is therefore the key to enabling compelling photorealistic renderings. With the new release of RTT DeltaGen 8.5, RTT now offers 3D artists the ideal solution for providing scenes with the convincing appearance of realism without having to compromise on high computing power. The global illumination feature is now an integral element of the modes offered.

All properties of material and light sources, from shadows to reflective objects, are calculated and integrated into the rendering process by RTT RealTrace. These forms of light and shadow visualisations are displayed in real time with considerable physical accuracy. In combination with integrated RTT Scale technology, product designers and marketers are now able to present optical effects and global illumination in real time at rendering speeds and a level of visual quality that have never before been possible. The

benefits of these faster calculations for users include quicker frame rates and more fluid movements.

February 2009, RTT DirectCatiaKinematics: from kinematic files to impressive animations

So far, professional visualisation solutions have offered only limited options for the use of kinematic information to generate detailed realistic simulations of sequences involving movement. Creating animations from such material was previously very time-consuming. Available in February 2009, the new conversion tool RTT DirectCatiaKinematics will allow designers to quickly convert kinematic data from CATIA V5 and thus use it for the RTT DeltaGen visualisation process. This is especially helpful for the realistic depiction of complex mechanical movement (e.g. chassis parts or the hinges and frame of a convertible's folding roof).

RTT Human: a human touch to virtual scenes

When product designers visualise objects such as vehicle models, they try to depict virtual prototypes in environments that are as realistic as possible. In order to assess the model, an idea of the proportions between humans and the product is essential. The RTT Human module allows designers and developers to make use of FBX files to place human models in scenes. This allows them to adjust the behaviour and movements of the virtual humans at will so that they fit the situation perfectly. In combination with immersive observation tools such as RTT Immersive, project participants thereby receive an overall 3D impression of the whole scene.

Tone mapping: optimum postproduction colour balancing

The new tone mapping functionality is the perfect extension to RTT DeltaGen's postproduction tools. From a high dynamic range image, this function can generate an image with reduced tonal values. In the process, original details and their depiction in terms of light and shadows remain clearly visible. This allows for an optimum contrast comparison between light and dark image details.

Groundbreaking innovations

"RTT DeltaGen 8.5 marks the dawn of a new era in graphics computing. RTT Scale enables the visualisation of highly complex scenes at previously unheard-of speeds and levels of interaction in ultimate display quality. Compromising between performance and visual quality will, therefore, be a thing of the past. The integration of global illumination allows for a new dimension of realistic quality when it comes to light and shadow effects. This allows us to offer designers and artists the best tools for perfect visualisations and further extend our market position as a leading provider of visualisation solutions", says Ludwig A. Fuchs, co-founder and member of the RTT AG Board.

5,538 characters (without blanks)



RTT
challenging reality



Ultimate perfection: RTT Scale enables more fluidity and interactivity during the display of highly complex, realistic scenes.



Ultimate realism: Demanding light and shadow visualisations are displayed in real time with considerable physical accuracy by means of ray tracing and global illumination effects.

Images by courtesy of AUDI AG



About RTT AG

Realtime Technology AG is a global leader in the provision of 3D realtime visualisation technology and services for industrial applications in the automobile, aeronautical and consumer goods industries, as well as in the field of interior design and architecture. The company supports its customers in their design and development by enabling the virtual representation of various product designs (virtual prototyping) as well as in their sales and marketing by facilitating product presentations that include every model, and additional options too, in showrooms, on the Internet, at trade fairs and at points of sale (virtual marketing).

RTT customers include names such as Adidas, Airbus, Applus Airon Technic, Audi, BASF, Bertrandt, BMW, Carbon Motors Corporation, Chrysler, Dai Nippon Printing (DNP), DaimlerChrysler, Dodge, EADS, EDAG, Fiat, Ferrari, Ford, General Motors, Hakuholdo, Holden, Honda, ICON Aircraft, Inovo Design, Italdesign Giugiaro, Iveco, Jeep, Lamborghini, Lexus, Magna Steyr, Maserati, Maybach, Mazda, Mercedes, Miele, Mitsubishi Electric, Opel, PATAC, Porsche, PSA, Rolls-Royce, Samsung, Scania, Schüco, Serco, Skoda, Sony Ericsson, Steelcase, Suzuki, TERREX, Tesco, Thyssen Krupp, Toppan Printing, Toyota, UCHIDA YOKO, Vauxhall, Volkswagen and Volvo.

The provider of 3D realtime visualisation applications can look back proudly on remarkable corporate development with annual growth of 50% in recent years. RTT currently employs approximately 370 staff in twelve offices. The company headquarters are located in Munich, and the business is represented by further offices in Los Angeles, Detroit, Seoul, Tokyo, Paris, Brussels, Milan, Melbourne, Singapore, Stuttgart and Hamburg.

RTT AG is a public limited company, with its shares being traded on the Frankfurt Open-Market, Xetra, Freiverkehr (OTC) Stuttgart and Freiverkehr (OTC) Berlin-Bremen exchanges: R1T, ISIN: DE0007012205. Further information can be found on the Internet at www.rtt.ag.

Press Contacts

RTT AG
Alexandra Mayer
Head of Marketing
Rosenheimer Straße 145
81671 Munich
Germany
Tel + 49 (0)89 200 275-0
Fax + 49 (0)89 200 275-200
e-mail alexandra.mayer@rtt.ag
Web www.rtt.ag

Maisberger GmbH
Jens Bohl / Christine Wildgruber
Account Manager
Kirchenstraße 15
81675 Munich
Germany
Tel +49 (0)89 41 95 99-88
Fax +49 (0)89 41 95 99-12
e-mail jens.bohl@maisberger.com
christine.wildgruber@maisberger.com