

Hannover Messe: Simulation results made visible

Electronic smog in the form of radiation from mobile phones is a serious issue. We all rightly demand not to be exposed any more than necessary by our mobile phones. A technology by Fraunhofer IGD, the world's leading institute for applied research in Visual Computing, makes simulation results visible and helps mobile phone manufacturers design lower-radiation devices.

(Darmstadt/Rostock/Graz) It's difficult to imagine our lives without mobile phones. We want to be reachable and communicate with others fast. However, we would prefer to rule out any health risks. It is therefore all the more important that mobile phone manufacturers fall below the legal radiation limits as much as possible. The reception quality, however, should be good. Nobody wants to use a mobile phone with very low radiation, but bad reception.

Comprehensive tests are required before a new mobile phone can enter the market. For several years already, computer simulations have been used for these tests. Even before real prototypes are designed, mobile phone radiation is simulated on the computer. Fraunhofer IGD develops, in close cooperation with its client, Computer Simulation Technology AG (CST), technology leader in simulating electromagnetic phenomena, a new visualization component, outshining current standard procedures.

“With our software infrastructure, it will be much simpler to make even very complex simulation data easy to understand”, says Professor André Stork, Head of the competence center at Fraunhofer IGD. “We make the simulation results

Press Release 12/2011

March 29, 2011

Page 2

visible for the engineer so that he can arrive at informative findings more quickly.”

With the help of the Fraunhofer technology iFX, designers can transfer simulation results easily and quickly to graphic 3D presentations. Within the simulation environment, many variants are then checked until the desired result of a low-radiation mobile phone antenna is achieved. The Fraunhofer researchers are able to make almost any simulation data of physical processes visible in a similar way. For this purpose, they analyze the simulation programs and their underlying data structure and develop customized visualization solutions based on the iFX framework.

Fraunhofer IGD is presenting its current developments at Hannover Messe 2011 (April 4-8) in Hall 17 Booth E58.



Picture: [M] Electronic smog in the form of radiation from mobile phones is a serious issue. A technology by Fraunhofer IGD, makes simulation results visible and helps mobile phone manufacturers design lower-radiation devices. Fraunhofer IGD is presenting its current developments at Hannover Messe 2011 (April 4-8) in Hall 17 Booth E58

Fraunhofer Institute for
Computer Graphics Research IGD
Corporate Communication
Dr. Konrad Baier
Fraunhoferstrasse 5
64283 Darmstadt

Phone: +49 6151 155-146
Fax +49 6151 155-199
presse@igd.fraunhofer.de
www.igd.fraunhofer.de

Press Release 12/2011

March 29, 2011

Page 3



TECHNISCHE
UNIVERSITÄT
DARMSTADT

The Fraunhofer IGD is the world's leading institute for applied research in Visual Computing. Visual Computing is image- and model-based information technology. It includes computer graphics, computer vision, as well as virtual and augmented reality.



Fraunhofer IGD develops prototypes and complete solutions pursuant to customer-specific requirements. The researchers at Fraunhofer IGD use, record and process images and graphics for all conceivable computer-based applications.

The research and development projects of Fraunhofer IGD directly relate to current business issues. The application spectrum of the concepts, models and practical solutions is as diverse as it is specialized. It ranges from virtual product design via medical science, transportation all the way to multi-media learning and training.



Together with its partner universities, Fraunhofer IGD researches various key technologies and cooperates with companies in many different industry sectors. In addition to the head office in Darmstadt, Fraunhofer IGD has further sites in Rostock, Graz and Singapore. It has around 180 (full-time equivalent) employees. The budget amounts to around 15 million euros.



Fraunhofer Institute for
Computer Graphics Research IGD
Corporate Communication
Dr. Konrad Baier
Fraunhoferstrasse 5
64283 Darmstadt

Phone: +49 6151 155-146
Fax +49 6151 155-199
presse@igd.fraunhofer.de
www.igd.fraunhofer.de