IMEC and INT report first MPEG-4 3D graphics player for mobile phones

May 11 2006

IMEC, Europe's leading research institute, and INT, Institut National des Télécommunications in France, have jointly developed the first 3D graphics player for mobile phones based on MPEG-4 3D graphics coding tools. The player is implemented on a Nokia 6630 mobile phone.

A demonstration of the technology was first presented at the 76th MPEG meeting in Montreux, Switzerland from April 3-7 2006. The features of the player can now be experienced online on www.ist-olga.org in the Software section.

The MPEG-4 3D graphics player is based on a reduced set of MPEG-4 BIFS (BInary Format for Scenes) nodes to describe the object graph and meshes. Textures are encoded in JPEG2000 format to exploit scalability features. The player supports the decoding and rendering of static and animated 3D graphics objects making MPEG-4 an excellent vehicle for representing 3D content for mobile applications such as games.

"This realization is based on IMEC's longstanding expertise in cost-efficient implementation of advanced multimedia systems for embedded platforms, which resulted already in several contributions to MPEG standardization initiatives;" said Rudy Lauwereins, Vice President Design Technology for Integrated Information and Communication Systems, IMEC. "Mobile multimedia industry can now benefit from core technologies standardized in an open international framework. The player is the result of the synergy between INT's MPEG-4 standardization activities and one of INT's current research trends on on-

line gaming in heterogeneous environments;" added Prof. Françoise Prêteux, head of ARTEMIS department.

MPEG-4 is the standard for multimedia for the fixed and mobile web. MPEG-4 video has been selected by several industry groups which set standards for next-generation mobile communication. It is being utilized to develop solutions for video on demand and related applications.

The player was developed as part of the IST OLGA project by IMEC and INT. OLGA targets to provide a unified framework to develop scalable 3D game content enabling roaming of games on a variety of terminals and networks.

Source: IMEC

Citation: IMEC and INT report first MPEG-4 3D graphics player for mobile phones (2006, May 11) retrieved 12 September 2024 from https://phys.org/news/2006-05-imec-int-mpeg-3d-graphics.html