

March 1st, 2007

## **CeBIT 2007**

### **Mobile Multimedia with Optimal Image and Audio Quality**

**To access videos on your home computer from your cell phone or to see who rings at your camera-equipped front door while traveling, you can now use the “Network-Integrated Multimedia Middleware (NMM)“. NMM makes it possible to create flexible and fully synchronized multimedia scenarios using applications, devices, and compute resources distributed across the network. Using new developed technology, NMM now automatically adapts the quality of video and audio to optimally use the bandwidth currently available in the network in order to always deliver the best possible user experience. NMM is now available not only on Windows XP and several Linux platforms but also on Windows Vista, Mac OS X, the Cell-processor, and PDAs. The software developed by computer scientists from Saarland University will be presented on the CeBIT 2007 in Hannover from March 15<sup>th</sup> to 21<sup>th</sup> on the Saarland booth (hall 9, booth B 65).**

NMM enables transparent access to all devices available in the network. Even while traveling, multimedia data on home devices is always available. At the same time these devices can also be fully controlled remotely – a feature only available with NMM. These features make it possible to create completely new “virtual” devices: The cell phone displays TV from the TV receiver at home via GPRS or UMTS or a VCR displays simultaneously on many output devices including TV sets, PDAs, or PCs. Each of these devices can use a different platform: Supported are Windows XP, Windows Vista, various Linux-systems, Mac OS X, and the Cell-processor of Sony’s Playstation 3.

Networks typically used at home or on the road – such as WLAN, GPRS, or UMTS – often do not deliver sufficient and stable bandwidth to guarantee consistent high quality for sound and video. New techniques, available now in NMM, distribute the available bandwidth optimally and globally to the different audio and video streams. Thus, at lower bandwidth connections NMM will incrementally increase compressions, may at some point replace the compression algorithms completely, or could migrate compression to another, faster device as required. In extreme cases the frame rate or the resolution can be reduced automatically. As bandwidth improves again these arrangements are will be reversed, such that best possible video and sound quality is always maintained.

The NMM architecture will be demonstrated from March 15<sup>th</sup> to 21<sup>th</sup> at the CeBIT 2007 in Hannover at the booth of Saarland University (hall 9, booth B 65) showing a networked home entertainment setup. In addition to automatic bandwidth and quality control on mobile and stationary devices, a four-display video wall will show synchronized audio and video playback running on several different multimedia and computing platforms.

Originally developed by Prof. Dr. Philipp Slusallek and his research team of the Computer Graphics Lab at Saarland University, Germany, the NMM software is now available through the spin-off company Motama GmbH. Due to its flexible licensing policy, NMM can equally be used in Open Source and research projects as well as in commercial products.

More information is available online:

<http://www.networkmultimedia.org/> and <http://www.motama.com/>

Press photos with the scientists are available online (free download)

[http:// www.informatik-saarland.de/06.Presse/03.Pressefotos/](http://www.informatik-saarland.de/06.Presse/03.Pressefotos/)

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