

■ Interview with Peter Häußermann, Daimler AG

Challenges of MOST in the Second Decade

German carmaker Daimler is currently working on its next generation infotainment systems and MOST150 will be a part of it. Peter Häußermann, Head of Telematics Electrics/Electronics at Daimler AG, provides an insight into the challenges MOST has to tackle during this development.

■ *How would you summarize the experience in MOST development during the first ten years of MOST technology?*

Peter Häußermann: The first decade of deployment of MOST technology was characterized by increasing knowledge through the development of distributed systems, continuous extensions to the standard and the development of tools and processes. MOST has become the leading standard for infotainment system networks and can be found i.e. in more than 16 Mercedes-Benz car lines.

■ *Where do you see the benefits of MOST150?*

Häußermann: MOST150 is the result of consistent advancement of the proven MOST25 infotainment network and provides for the increased demands of applications with a 6x higher data rate, the possibility of high performance



transmission of compressed video streams and the seamless integration of IP protocol applications. During the advancement of MOST150, it was important for us that already existing and proven features of MOST25 were maintained as stable basis. This in-

cludes POF as a robust, automotive qualified transmission medium, the continuation of an established multimedia framework for synchronous audio and the reuse of and compatible extension of the MOST FBlock APIs

■ *MOST150 is in the process of implementation. What is the current status at Daimler?*

Häußermann: MOST150 is currently in the series development for the next Mercedes-Benz infotainment generation. Fully-qualified series production parts are already available for all key components.

■ *Does this technology step require a complete redesign or is it rather a smooth adaption with the majority of features being reused?*

Häußermann: MOST150 allows the reuse of components out of our proven system architectures, i.e. main parts of topologies, network management and application structures can be adopted. As a result, we can focus on the development of new functions.

■ *When will we see the first car models by Daimler with infotainment network based on MOST150?*

New car models with MOST technology



| BMW X3



| Mercedes-Benz SLK



| Lexus CT 200h



| Mercedes-Benz CLS

Häußermann: MOST150 will first be implemented in the next generation of the S-Class. Afterwards the technology will be rolled out step by step onto all other Mercedes-Benz car lines.

■ *How do you approach the design cycle divergence of the automotive and the consumer electronics industries?*

Häußermann: To allow for a prompt integration of new consumer devices, infotainment systems have to be prepared for the interface technologies of the consumer world. This is especially important for the available transmission protocols (e.g. IP protocol), the middleware and application interfaces (e.g. UPnP).

■ *Do you rate automotive Ethernet as competitive to MOST?*

Häußermann: With the basic structure as a synchronous bus and a proven multimedia framework, MOST provides the best prerequisites for a stable and cost-effective transmission of audio and video data within a vehicle. We gain synergy effects with MOST150 by reusing existing application interfaces (FBlocks).

The use of Ethernet for infotainment use cases requires specific adaptations of the network technology and a complete development of an adequate middleware for communication at application level. As a result for

Introduction: Dipl.-Ing. Peter Häußermann

Peter Häußermann was born in Backnang, Germany, in 1955. He has a degree in Electrical Engineering from the Technical University of Stuttgart, with a special emphasis on theoretical communications engineering. He joined Daimler AG in 1979 and took over a senior management role in 1986. Since

1996 he has been responsible for the development of multimedia, navigation and communications systems and control and display concepts for all Mercedes-Benz passenger car series. He currently holds the position of Head of Telematics Electrics/Electronics at Daimler AG.

us, Ethernet is not an alternative to MOST150 for networking in our infotainment systems.

■ *Internet in the car seems to be the latest trend. How do you evaluate this approach and how will MOST be involved?*

Häußermann: We expect that the prevalence of internet applications in the automotive environment will grow significantly. Future infotainment platforms have to meet these new requirements.

MOST150 makes a crucial contribution to this by providing the MOST Ethernet protocol. With this new communication channel, both high-performance IP networks and internet application can easily be implemented.

■ *What are the upcoming challenges MOST will have to meet?*

Häußermann: In the near future,

further standardization of IP-based applications for MOST is required. In order to take full advantage of consumer standards, application interfaces (analog to the MOST FBlocks) also have to be standardized based on the currently defined MOST Ethernet protocol.

In the long term, it will be necessary to research alternative transmission mediums and develop miniaturized connectors. This will lead to even higher bandwidth and allow the use of MOST in newer, more demanding situations.

■ *Can you imagine MOST stepping beyond infotainment-only applications?*

Häußermann: It is imaginable to use the strengths and benefits of the MOST technology in other automotive domains. It is currently being evaluated which applications could take advantage of this. sj



| Bentley Mulsanne



| Audi A6



| Volvo V60



| BMW 6 Series Convertible