MISRA, the Motor Industry Software Reliability Association, has published MISRA modeling guidelines for TargetLink. The new guidelines support function developers and software developers in implementing vehicle functions with regard to functional safety. TargetLink is so far the only production code generator for which such MISRA guidelines have been published.
Interview

with Michael Beine,
TargetLink Product Manager
(dSPACE)

Mr. Beine, could you briefly explain the practical significance of the new MISRA guidelines for TargetLink users?

Imagine you want to model a vehicle function in Simulink®/TargetLink and then implement it as production code. How do you make sure, for example, that the generated code is sufficiently compliant with the MISRA C:2004 guidelines and suitable for code reviews, yet still fits the limited resources available on the ECU? Do you always know precisely whether the modeling constructs you use are transparent in Simulink®/Stateflow® and have no hidden pitfalls? The MISRA modeling guidelines for TargetLink give you useful tips and instructions that will benefit your production projects.

What do the guidelines mean for TargetLink as a product, which after all has been on the market for many years?

We’re very pleased that the MISRA C guidelines, which are widely used at code level, are now supplemented by the MISRA TargetLink guidelines at model level. The MISRA TargetLink guidelines show that TargetLink is firmly established as the de-facto standard for autocoding in the automotive sector. Production applications using TargetLink can be found in all automotive domains such as powertrain, body electronics, chassis, driver assistance systems, vehicle safety, and even infotainment. The TargetLink modeling guidelines from MISRA give TargetLink users additional support in these applications, especially with regard to functional safety. Incidentally, dSPACE also provides its own TargetLink modeling guidelines, which cover further aspects such as AUTOSAR and achieving maximum code efficiency.

Thank you for talking to us, Mr. Beine.