

Working with FlexRay



The first vehicles to use FlexRay, the standard for a new generation of powerful, deterministic communication networks, will roll off the production line in 2006. dSPACE had solutions for developing FlexRay-based software for electronic control units (ECU) at a very early stage, and plans systematic further development in this field.

dSPACE Products in Use

The BMW Group's use of FlexRay was described in the first 2005 issue of dSPACE NEWS. Other companies such as General Motors (p. 4-5) are also relying on products from dSPACE to verify the new protocol and develop innovative FlexRay applications.

FlexRay Development

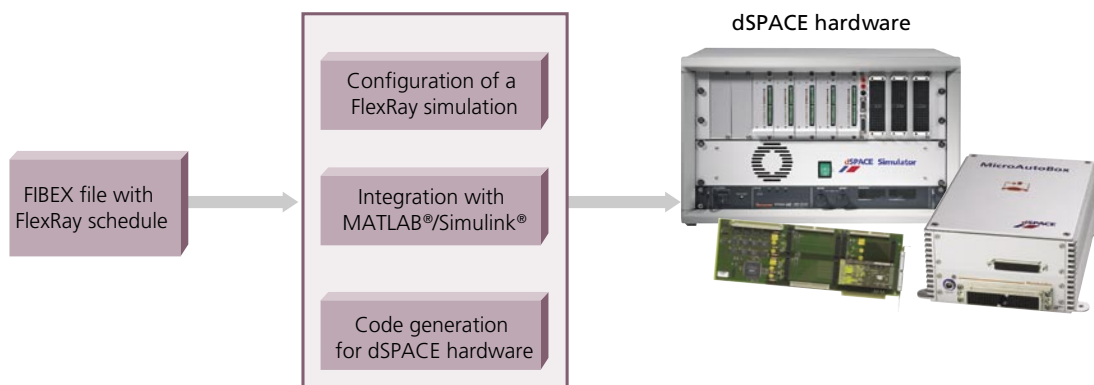
The production applications that are planned make tough demands on the requisite development systems. To serve the increasing number of FlexRay ECUs, central message catalogs are coming to the forefront. The new requirements will govern the development of individual vehicle functions, and the verification of both single and networked FlexRay ECUs. dSPACE's proven-in-use products for CAN communication (p. 18) are now joined by a wide range of constantly evolving FlexRay products.

New RTI FlexRay Configuration Blockset

In response to customers' requests, dSPACE will be offering an RTI FlexRay Configuration Blockset and configuration tool (single source) from early 2006, to optimize tool use in the development of FlexRay applications. This will mean that dSPACE systems can be completely integrated into FlexRay communication networks by means of dSPACE tools. Both rapid control prototyping tasks and tests on FlexRay ECUs, including restbus simulation, will be supported in this way. Familiar features of dSPACE products can be applied to the FlexRay bus. The blockset supports not only model-based work, but also integration into other dSPACE tools for experiments, visualization, and tests. Synchronous data recording for dSPACE processing nodes will be supported by an extension to dSPACE's experiment software, ControlDesk. The use of ASAM MCD-2FBX (FIBEX) for importing FlexRay schedules is also in preparation.

➤ **New blockset integrates dSPACE hardware into FlexRay communication networks**

➤ **Configuration tool for efficient preparation of FlexRay simulations**



▲ *Configuring a FlexRay application with the RTI FlexRay Configuration Blockset, from setting up the FlexRay schedule to implementing it on the dSPACE hardware.*