

### Better Test Results by Controlled Disturbance of FlexRay Buses

**FRstress - The new test tool from Vector**

Stuttgart, 04-24-2007 – Vector is offering FRstress as a new hardware module for testing FlexRay buses. The tool stresses and disturbs FlexRay buses in a targeted manner by generating protocol errors and manipulating the bus physics. Test engineers at automotive OEMs and suppliers can now use FRstress to test their ECUs and FlexRay buses even faster and more effectively.



To verify the behavior of FlexRay buses in error conditions, the buses must be reproducibly stressed and disturbed. In achieving this objective, FRstress is the first tool to offer the capability of generating bit-precise disturbances with dynamic CRC recalculation. Various disturbance situations can be configured quickly and easily, e.g. manipulation of FlexRay messages or destruction of entire FlexRay frames in order to cancel the frame transmission. The test engineer can also use FRstress to modify the bus physics by means of additional resistances and capacitances. A time offset can also be forced between two FlexRay segments.

The design of suitable test cases and consistent use of FRstress in the test phase saves time and costs in system development and enables the creation of error-free ECUs.

It is easy to integrate FRstress in existing test systems. Other applications can handle configuration and

triggering of the disturbance via the Microsoft COM interface. The configurable external trigger output is used to connect other test devices (e.g. oscilloscope). The FlexRay developer configures and controls the FRstress module by a convenient Windows-based user interface program. Besides configuring FlexRay parameters, it is also possible to configure trigger conditions, disturbance sequences and – for analog disturbances – the values of line resistances and the capacitor.

For additional information on the Internet:

[www.vector-informatik.com/frstress\\_en](http://www.vector-informatik.com/frstress_en)



[Figure: Testing and validation of FlexRay systems with FRstress]

Version 4/2007

Number of words: 280

Number of characters: 1,869

Vector Informatik GmbH  
Ingersheimer Str. 24  
70499 Stuttgart  
Germany  
[www.vector-informatik.com](http://www.vector-informatik.com)

We would appreciate it if you would send us a specimen copy.  
If you have any questions before publication we would be glad to assist you:

Vector Informatik, Germany (Article available in English and German)  
Holger Heit,  
Tel. +49 711 80670-567, Fax. +49 711 80670-555,  
E-mail: [holger.heit@vector-informatik.de](mailto:holger.heit@vector-informatik.de)

Vector CANtech, North America (Article available in English)  
Angela Aceti,  
Tel. +1 248 504 6447, Fax. +1 248 449 9704,  
E-mail: [angela.aceti@vector-cantech.com](mailto:angela.aceti@vector-cantech.com)

Vector France (Article available in French)  
Françoise Grandjean,  
Tel. +33 1 4 231 4000, Fax. +33 1 4 231 4009,  
E-mail: [francoise.grandjean@vector-france.com](mailto:francoise.grandjean@vector-france.com)

Vector Scandinavia, Sweden (Article available in Swedish)  
Henrik Pihlgren,  
Tel. +46 31 764 76 10, Fax. +46 31 764 76 19,  
E-mail: [henrik.pihlgren@vecscan.com](mailto:henrik.pihlgren@vecscan.com)

Vector Japan (Article available in Japanese)  
Takushi Hieda,  
Tel. +81 3 5769 6981, Fax. +81 3 5769 6975,  
E-mail: [takushi.hieda@vector-japan.co.jp](mailto:takushi.hieda@vector-japan.co.jp)

You can find this and other press releases on our homepage at:  
[www.vector-informatik.com/press](http://www.vector-informatik.com/press)

**About Vector Informatik GmbH (Revised: 04/01/2007):**

Vector Informatik is the leading producer of software tools and components for networking in electronic systems based on CAN, LIN, FlexRay and MOST as well as a number of CAN-based protocols.

This know-how is conveyed in the form of products or as a comprehensive consultation package with system and software engineering. Workshops and seminars round out our multifaceted training program.

Worldwide customers in the automotive, heavy-duty vehicle, transport and control engineering fields rely on solutions and products from the autonomous and independently-owned Vector Group.

Vector Informatik, founded in 1988, currently employs 700 people together with Vector Consulting GmbH and in the year 2006 achieved sales of 104 million euros. In addition to its headquarters in Stuttgart, Vector Informatik also has an international presence with subsidiaries in the USA, Japan, France and Sweden.