

STAR COOPERATION®

Your Partners in Excellence



FlexConfig RBS

www.star-cooperation.com

FlexConfig RBS is the all-purpose tool for all challenges related to automotive bus systems. With this tool bus data can be simulated, visualized, manipulated and recorded very easily. This is implemented for almost every OEM and almost every bus system in the automotive environment. The focus is always on simple operation in order to make even the most complex applications easy to implement.

BENEFITS

- Support for 1000BASE-T1, 100BASE-T1, CAN-FD, CAN-HS, FlexRay, LIN, SENT
- One tool for simulation, visualization, manipulation and recording of automotive bus datas
- Supports a wide range of interfaces
- Support of a wide range of network description formats, e.g. AUTOSAR (.arxml), FIBEX (.xml), CANdb (.dbc), LDF (.ldf)
- Support of a wide range of car manufactures and their special handlings
- Very easy realization of different use cases, like remaining bus simulations, gateways, or rapid prototyping
- Very short latencies and boot times <200ms are possible, since the generated remaining bus simulation is executed directly on the hardware
- Existing project can be updated to a new version of a network description file

FLEXCONFIG RBS - SIMULATION

- Easy configuration of remaining bus simulations and gateways
- Automatic detection and configuration of the E2E protection
- Various setting for AUTOSAR time synchronization (e.g. boundary clock)

- Supports Secure Onboard Communication, IPSec and other security mechanisms
- Send behavior can be set individually for each network communication element
- Outstanding Gateway functionality to create gateways between different bus systems, including automatic scaling of routings

FLEXCONFIG RBS - VISUALIZATION*

- Easy configuration of viewsets with different widgets (e.g. x/y graph, tacho, button, etc.)
- Different viewsets can be configured
- Viewsets can be used on the pc and also on a mobile device (e.g. android tablet)

* CAN, FlexRay, Ethernet and SOME/IP

FLEXCONFIG RBS - MANIPULATION

- Real time manipulations are possible during execution of the gateway or the remaining bus simulation
- A transparent Gateway can be configured very quickly to implement a man in the middle setup for manipulating any bus traffic
- Different manipulations are possible (e.g. offset, freeze, ramp, drift, loss, factor)
- Different triggers for starting/ending a manipulation can be defined
- The duration/delay of a manipulation can set freely
- For the connection to the testbench, all manipulations can be configured and triggered via Ethernet over a standardized protocol

FlexConfig RBS

FLEXCONFIG RBS - LOGGING

- Logging can be executed parallel to all other functions (e.g. simulation, visualization, manipulation)
- Different time bases can be used for the time stamp of the log files, for example 802.1AS / IEEE1588 PTP, RTC, fpga timestamp
- Different logging formats are supported (e.g. *.mf4, *.asc, *.txt)
- The data is logged on a SD-Card
- The logged data can be accessed via ftp over ethernet or Wi-Fi or directly from the SD-Card.

FLEXCONFIG RBS - RAPID PROTOTYPING

- Integrated C-Code Editor for adding complex functionality and low-level access to the specific hardware functions
- Easy integration of ecu models (e.g. MATLAB)
- Very performant ethernet protocol for accessing all signals (e.g. cyclic read and write of all signals) of the executed remaining bus simulation.

FLEXCONFIG RBS - VERSIONS

	FlexConfig RBS Starter	FlexConfig RBS	FlexConfig RBS Pro
Basic functions			
simulation	●	●	●
visualization	●	●	●
manipulation	●	●	●
recording	●	●	●
rapid prototyping	●	●	●
Bus systems			
SENT	●	●	●
LIN	●	●	●
CAN-HS	●	●	●
CAN-FD	●	●	●
FlexRay*		●	●
100 BASE-T1 *		●	●
1000 BASE-T1 *		●	●
Advanced Teamwork			
Import/Export of Routingtables			●
Merge of Userfunctions			●

* bus license required

FLEXCONFIG RBS - SUPPORTED HARDWARE

- FlexDevice-S, FlexDevice-L*, FlexDevice-L2*
- FlexCard PCIe3, FlexCard PXle3

* Revision 2

FLEXCONFIG RBS - SUPPORTED NETWORK DESCRIPTION FORMATS

- **CANdb (.dbc)**
- **LDF (.ldf)**
- **FIBEX (.xml) Version:**
2.0.0d, 2.01, 3.0.0, 3.1.0, 4.0.0, 4.1.1, 4.1.2, FIBEX+ 1.4
- **AUTOSAR (.arxml) Version:**
3.0.2, 3.1.0, 3.1.4.DAI.2, 3.1.4.DAI.4, 3.2.2, 4.0.3, 4.1.1, 4.2.1, 4.2.2, 4.3.0, 4.3.1

FLEXCONFIG RBS - SUPPORTED BUS SYSTEMS

1000BASE-T1, 100BASE-T1, CAN-FD, CAN-HS, FlexRay, LIN, SENT

SCOPE OF DELIVER

- FlexConfig RBS
- Dongle
- Documentation

ORDER INFORMATION FLEXCONFIG RBS

Configuration Software

Product	Description	Order number
FlexConfig RBS Starter	Software license for the usage of FlexConfig RBS only for the bussystems CAN-FD/-HS and LIN. Requires „FlexConfig RBS runtime“ on each device.	3-V0161J01
FlexConfig RBS	Software license for the usage of FlexConfig RBS for all supported bussystems. Requires „FlexConfig RBS runtime“ on each device.	3-V0160B01
FlexConfig RBS Gateway	Extension for creating Gateway configurations with FlexConfig RBS. Requires “FlexConfig Gateway runtime” on each device.	3-V0160N01
FlexConfig RBS Pro	Software license for the usage of FlexConfig RBS for all supported bussystems and additional features. Requires „FlexConfig RBS runtime“ on each device.	3-V0161O01

ORDER INFORMATION ACCESSORIES

Product	Description	Order number
FlexConfig RBS OEM Package	Extension for OEM specific configurations. Available for several OEMs.	on request
FlexConfig RBS Update	Onetime update to the latest FlexConfig RBS Release.	3-V0160U01
FlexConfig RBS Pro Update	Onetime update to the latest FlexConfig RBS Pro Release.	3-V0160P01
FlexConfig RBS Maintenance	Includes all updates of FlexConfig RBS for one year.	3-V0160M01
FlexConfig RBS Pro Maintenance	Includes all updates of FlexConfig RBS Pro for one year.	3-V0161Q01
FlexConfig Compact Course	1-day basic training	on request
FlexConfig RBS Pro Upgrade	Upgrades a FlexConfig RBS license to a FlexConfig RBS Pro license	3-V0161R01

ORDER INFORMATION HARDWARE RUNTIMES

Product	Description	Order number
FlexConfig RBS runtime	Runtime license for RBS execution. Required once per device.	3-00700J01
FlexConfig Gateway runtime	Runtime license for gateway execution. Required once per device. (Requires “FlexConfig RBS runtime”)	3-00701E01
FlexConfig Control runtime	Runtime license for signal manipulation. Required once per device. (Requires “FlexConfig RBS runtime”)	3-00701G01
FlexConfig Analyzing runtime	Runtime license for analyzing bus data. Required once per device.	3-00701J01
FlexConfig Logging runtime	Runtime license for recording bus data. Required once per device.	3-00701O01